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Generating, Deepening, and Documenting Learning: The Power of Critical Reflection in Applied Learning

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Student Reflection Product (Slightly modified from original)

Academic Articulated Learning

One main attribute we have discussed that a servant-leader should have is foresight, or the ability to anticipate what will happen based on patterns observed from the past through a combination of rational thought and intuition. In "The Servant as Leader," Robert Greenleaf says that foresight is "the 'lead' that the leader has" and that without it "he is not leading" because events "force his hand." However, *I have learned that* although lack of foresight can indeed limit the choices of a leader, his/her "lead" may not be lost entirely as long as there are options for action; lack of foresight need not entirely "force [one's] hand," but to avoid the situation in which it does, it is necessary to think creatively about one's remaining options and not assume that one no longer has any options.

I learned this when we reflected on the challenges we were experiencing with the "Computer Literacy Project" at the assisted living facilities in a group meeting with my instructor. We talked about how we had not had much foresight regarding the computers we had obtained as donations; when we made our project plan at the beginning of the semester, we did not even consider the possibility that the donated equipment might not be in good working order and so had planned only a little time for computer set-up. At this point, we were discouraged that we were having to spend a lot of time trying to fix technological problems at the assisted living facilities when, if we had anticipated the need, we could have arranged for someone with more technical expertise than we have to get the computers in working order before we took them to the sites; had we done that (and one of my group members even knows someone who would have been happy to help us out, so it wouldn't have been difficult to find such a person), we would have had working computers much more quickly and could have moved on by now to working on sustainability for the computer literacy project. We felt that, at this point, we would not have enough time to accomplish all of the objectives we had at first set forth for the project; in particular, we realized that we may not be able to firmly establish a permanent "home" program to take on the responsibility of the Computer Literacy Project. We felt that we had no choice but to simply give up this objective—that is, we felt that our lack of foresight had indeed taken away our "lead"—since the pressure we were experiencing from time seemed to be forcing our hand and leaving us no options.

However, my instructor asked us if not being able to completely fulfill an objective meant that we could not progress towards it at all. This question helped us to realize that while we may not be able to fully complete everything we wanted to with this project, we still can make significant progress toward several goals; we have not, therefore, completely lost the ability to provide leadership in this project, as our reading of Greenleaf's discussion of foresight led us to believe. We can establish preliminary contact with possible "home" programs for the project and compile a report of these options. We can locate a source of technological support, whether within the college of engineering or elsewhere, for future participants in the project - as a step toward dealing with the technological problems that we are not going to be able to fix this semester and toward making this part of the project more sustainable. In short, our choice of actions at this point may be limited by our lack of foresight earlier on in the project (we simply do not have the time at this point to get more than one computer at each site installed and working properly, even with the help of my group member's friend, for example, and we therefore we will not be able to hold the 10-person classes that we had planned to have running before the end of the semester); but we still have choices, and we still have options for making progress on this project before our involvement with it ends. Of course, before I can judge my conviction that leadership options are not, in fact, lost by lack of foresight, it will be necessary to undertake some of these actions and ascertain whether or not it really is too late to have an impact on this project; perhaps there is a point in any project in which leadership is lost due to lack of foresight, and it would be interesting to try to determine through this project and others at what stage in a project's unfolding that point occurs, if in fact it consistently does.

This learning matters because my group and I discovered that we do not agree that lacking foresight causes a leader to "lose [his or her] lead" as Greenleaf states and were able to use this discovery to help us overcome our discouragement and sense of failure. Perhaps our experiences with the consequences of lacking foresight are different from Greenleaf's ideas of these consequences because we were able to identify this mistake as we were making it. Our overall understanding of the concept of foresight has not only been reinforced by but also revised through the service-learning process of reflection. If we had failed to reflect on our service experiences, we might never have realized we were failing in the area of foresight in connection with our technological problems. Then we would indeed be having our hands forced by events, as we would not have the opportunity that we do now to analyze how we can change our actions to prevent this. Even though our efforts in this service project have been compromised by our lack of foresight, I believe we can utilize other leadership skills to retain our "lead" in this project. We can reassess the highest priority needs of the project, be flexible, and learn to work within the limitations that our lack of foresight has caused. Basically, this learning matters because it has reinforced both to me and to my group members the importance of foresight when trying to achieve goals and also caused us to find alternate ways of working towards those goals when our lack of foresight brings us into situations of limited options.

In light of this learning I will spend some time after our meeting with the facility manager to foresee what situations may come up in the last five weeks of this project, write these ideas down, and share them with my group members. This will be difficult simply because foresight is, in the paradoxical words of Greenleaf, "foresee[ing] the unforeseeable." Since there are so many challenges and changes that may yet arise in this project, it will be hard to predict them. However, I believe that examining and reflecting on our past experiences with the project will help me to do this. As Greenleaf states, foresight often requires a leader to have a "feel for patterns," and one important way for me to recognize and sense patterns in the progress of this project is by reflecting on my past experiences and current involvement with this project. Also, I can be thinking of what choices still remain for us as we seek to come as close to completing our objectives for this project as possible, and how we can act upon these choices.

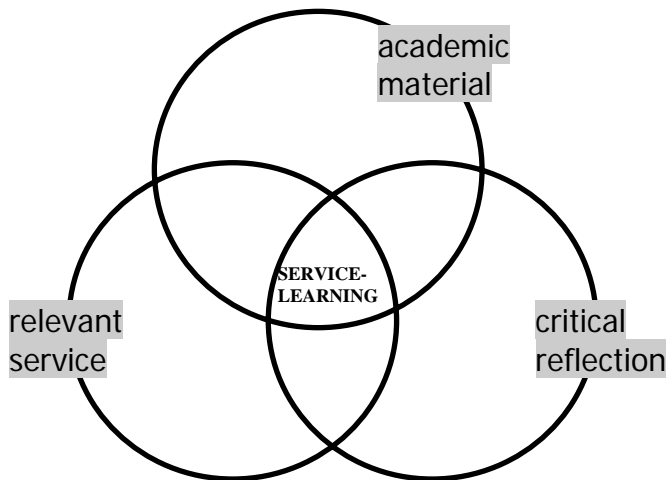
Designing for Learning: Clarity on the Learning Process

The Center for Excellence in Curricular Engagement's Definition of S-L

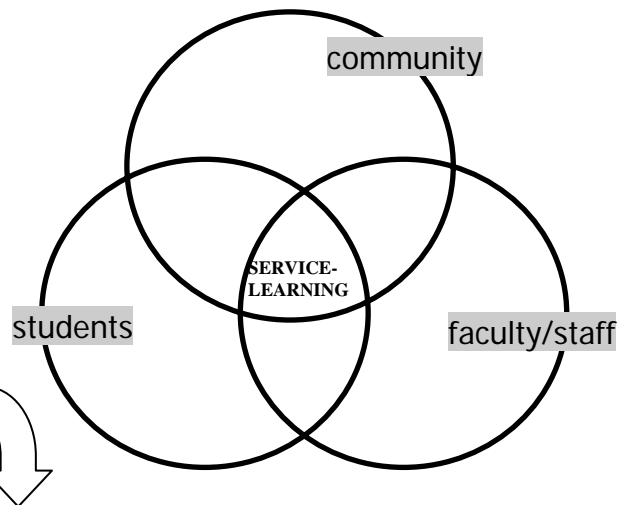
Service-learning (SL) is a collaborative teaching and learning strategy designed to promote academic enhancement, personal growth, and civic learning. Students render meaningful service in community settings that present them with experiences related to academic material. Through guided reflection, students—individually and in groups—examine their experiences critically and articulate specific learning outcomes, thus enhancing the quality of their learning and of their service. S-L helps students to deepen their understanding of what they know, who they are, how the world around them works, and their place in it and responsibility to it.

The Venn diagrams below are a visual representation of the various interconnected elements that compose the SL process. These are: (A) the linkage of academic material to service experiences through critical reflection; (B) the partnering of students and instructors with community members; and (C) the integration of learning about course material with learning about oneself and about processes of civic agency.

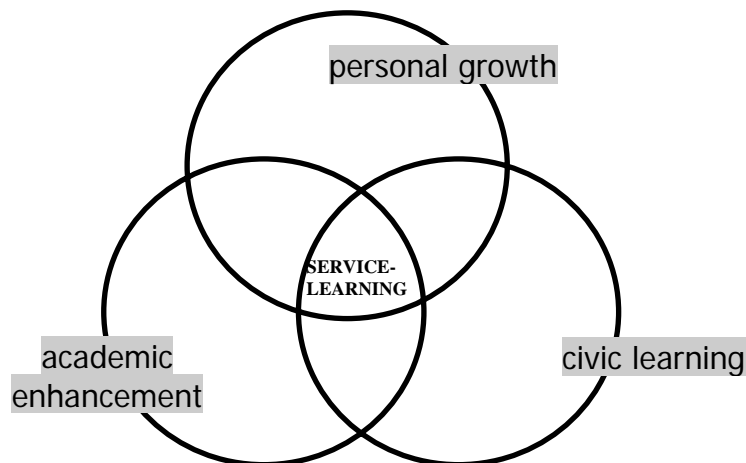
A. Components of Service-Learning



B. Partners in Service-Learning

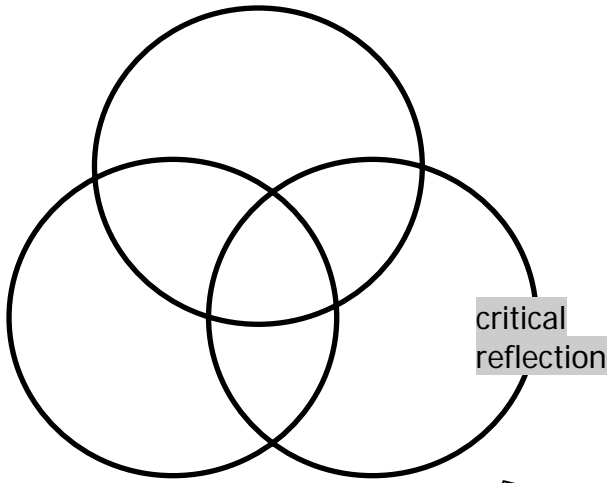


C. Learning Goals of S-L

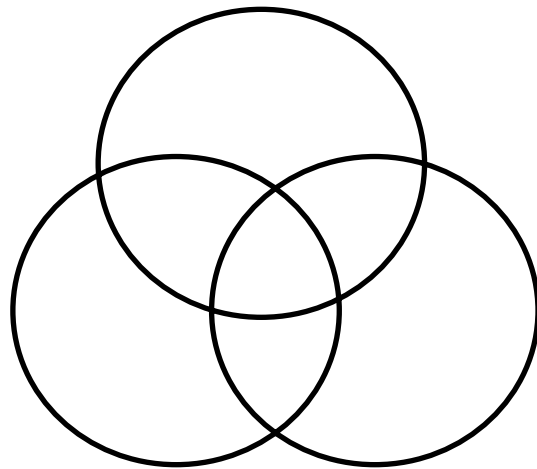


Worksheet A: Your Applied Learning Pedagogy

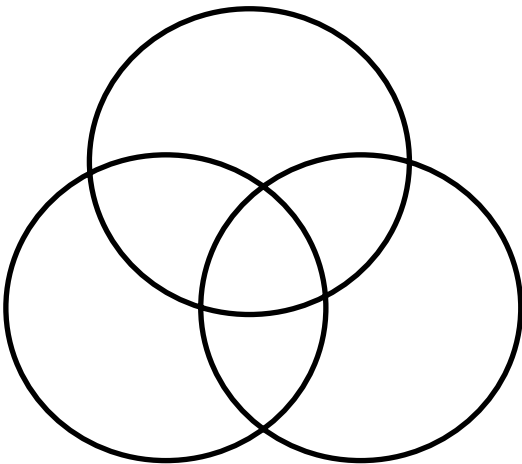
A. Components



B. Partners

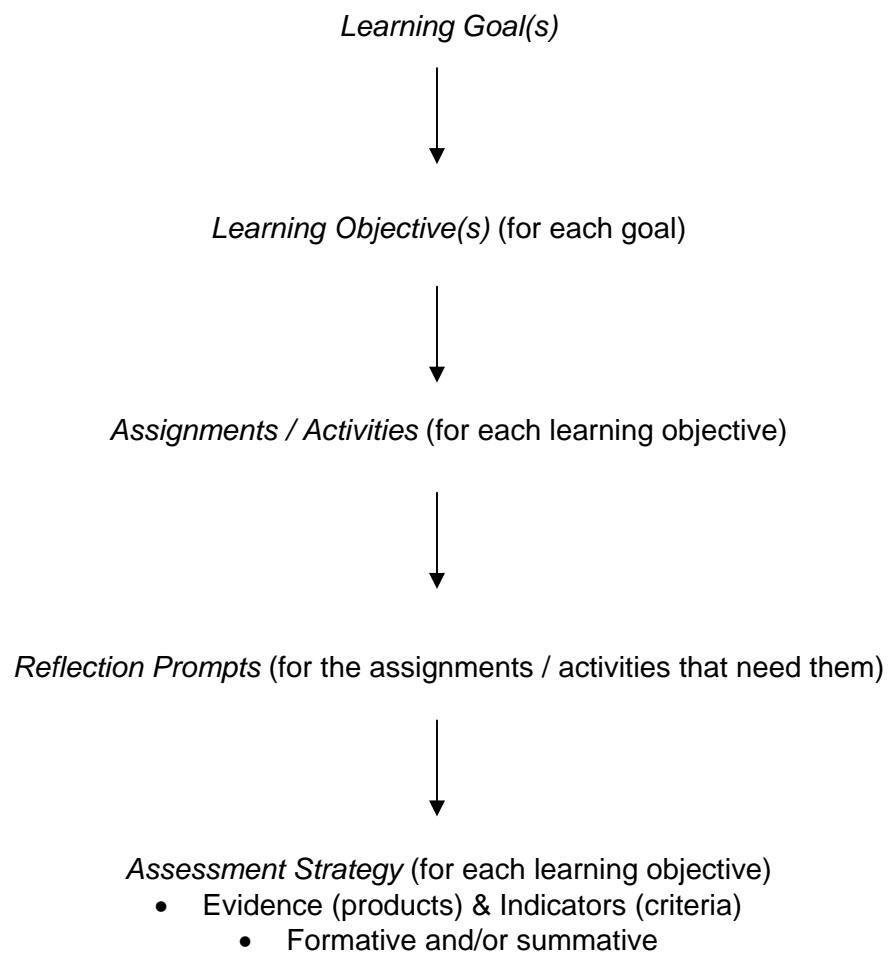


C. Learning Goals



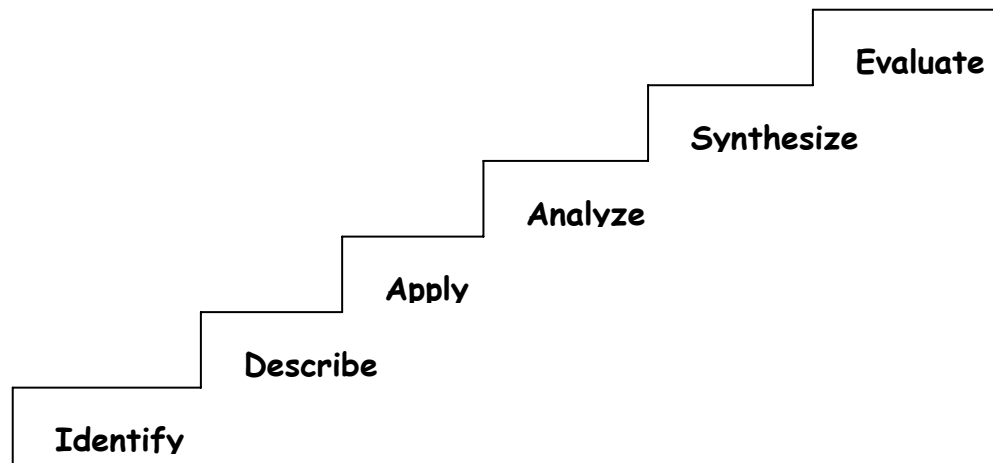
Designing for Learning: Clarity on the Design Process

An Instructional Design Process



Designing for Learning: Clarity on Learning Objectives

Bloom's Classification	Examples of Learning-Related Behaviors
Knowledge	<i>Identify, define, order</i>
Comprehension	<i>Describe, explain, restate</i>
Application	<i>Apply, solve, choose</i>
Analysis	<i>Analyze, compare, contrast</i>
Synthesis	<i>Synthesize, develop, propose</i>
Evaluation	<i>Evaluate, assess, judge, critique</i>



Learning Goals	Learning Objectives (LOs)
Academic Enhancement: I want students to understand and be able to use Chickering and Gamson's 7 principles for good practice	LO #1 Students will explain the 7 principles in their own words
	LO #2 Students will apply the 7 principles to their roles as teachers in the community
	LO #3 Students will evaluate both their implementation of the 7 principles with their "learner" population and the relevance of the principles for this population

Service-Learning Learning Objectives

Learning Objective Level	Personal Growth Learning Objectives	Civic Learning Learning Objectives	Academic Enhancement Learning Objectives
LO 1: Identify	Identify a personal characteristic of yours.	Identify the collective objectives at stake and the approach you or others took toward meeting them	Identify a specific academic concept.
LO 2: Describe	Describe the personal characteristic.	Describe the objectives and the approach you and / or others took toward meeting them	Describe the academic concept.
LO 3: Apply	Apply your understanding of this personal characteristic in the context of the experience and (as applicable) to other areas of your life.	Apply your understanding of the approach in the context of the objectives at stake.	Apply the academic concept in the context of the experience.
LO 4: Analyze	Analyze the sources of this personal characteristic	Analyze the approach in light of alternatives	Analyze your initial understanding of the academic concept in light of the experience.
LO 5: Synthesize	Develop the steps necessary to use, improve upon, or otherwise change this personal characteristic in the short term, in your service-learning activities and (as applicable) in other areas of your life.	Develop the steps necessary to make any needed improvements in the short term.	Develop an enhanced understanding of the academic concept in light of the experience.
LO 6: Evaluate	Evaluate your strategies for personal growth over the long term.	Evaluate your (their) role as an agent(s) of long-term, sustainable, and/or systemic change.	Evaluate the completeness of your understanding of the concept and of its use in the community

Worksheet B: Goals → Objectives

Learning Goal	Learning Objectives (LOs)
	LO #1
	LO #2
	LO #3

Learning Goal	Learning Objectives (LOs)
	LO #1
	LO #2
	LO #3

Learning Goal	Learning Objectives (LOs)
	LO #1
	LO #2
	LO #3

Designing for Learning: Clarity on the Meaning of “Reflection”

Worksheet C: Reclaiming Reflection

“Reflection”

“Critical reflection”

What is Critical Reflection?

**“Experience is the best teacher – Or is it?”
(Conrad and Hedin)**

“active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends”

Dewey, J. (1910). *How we think*

“a continual interweaving of thinking and doing”

Schön, D. (1983). *The reflective practitioner: How professionals think in action*

to “integrate the understanding gained into one’s experience in order to enable better choices or actions in the future as well as enhance one’s overall effectiveness”

Rogers, R. (2001). Reflection in higher education: A concept analysis.
Innovative Higher Education

**“We had the experience but missed the meaning”
Eliot, T.S (1943) *The Four Quartets***

Critical Reflection

1) Generates

2) Deepens

3) Documents

Learning

Designing for Learning: Clarity on the Design of Critical Reflection

10 Tips for Designing Reflection Activities

[Clayton, P.H. (2004). "10 Tips for Designing Reflection Activities." NC State Service-Learning Program.]

- 1) You can facilitate student reflection on almost anything: an experience you craft for them, something that happens in the classroom serendipitously, a reading, a quote, a videoclip, their own lives more generally, etc. Remember: "EVERYTHING IS REFLECTION-WORTHY"
- 2) Reflection can take either WRITTEN or ORAL forms and either INDIVIDUAL or COLLABORATIVE forms. The strongest reflection combines all four and is sensitive to the different objectives each approach can accomplish, the different constraints on each approach, and how each can build on the other.
- 3) Reflection activities can be largely cognitive OR they can be physical AND cognitive. Consider as an example the differences between written and physical SPECTRUM ACTIVITIES and the ways in which this mechanism can combine written and oral and individual and collaborative reflection.
- 4) Reflection can focus on producing learning outcomes across all categories of learning: KNOWLEDGE, SKILLS, ATTITUDES / VALUES, and BEHAVIORS. Note that these categories are interdependent.
- 5) Reflection can build on itself CUMULATIVELY.
 - Consider using a PRE-MID-POST approach:
 - ask the students to reflect on their assumptions and objectives before beginning an experience / project / activity,
 - pause and reconsider how these things are changing or need to change mid-way through, and
 - look back at the end and consider the evolution of their process, the nature of their accomplishments, and the possibilities for building on their learning in the future.
 - Consider beginning a new experience / project / activity with a RE-CAP OF LESSONS LEARNED through a previous reflection, with the expectation that those lessons are incorporated into the current experience (e.g., "note that last time we learned about the value of having a timekeeper role in the group because we didn't have one and we didn't finish on time, so let's structure our group accordingly this time").
- 6) Begin designing a reflection activity by asking yourself a series of questions – beginning with "WHO ARE MY STUDENTS?" and "WHAT ARE THE OBJECTIVES?" It is also important to know the constraints you are operating under (time frame, room set-up, resources available) and your own skills / abilities as a facilitator and to design accordingly.
- 7) Reflection must be GUIDED: by a facilitator orally, by a set of written prompts for the students to use individually, by a worksheet for the students to use as a group, etc. The guidance must be more than "reflect on this and tell me what you have learned" – the purpose of reflection is to generate the learning and then to help them articulate it well, in part to inform future learning / action.
- 8) Reflection requires a "SAFE YET CRITICAL SPACE" if learning is to be maximized. While it is not about generating one right answer (rather, ambiguity and complexity are honored) it should not suggest that all answers are equally valid. There is a difference between *opinions* and *judgments*, and if reflection is to support students in making the latter then it is appropriate to apply standards of critical thinking (logic, use of evidence, consideration of alternative perspectives, etc.) in order to distinguish more legitimate from less legitimate answers and to deepen thinking.

9) MODEL reflection for your students. Reflect on your own role, your own mistakes, your own uncertainties, your own experiences ... in front of them, as examples before asking them to reflect. Similarly, have your students read and discuss reflective writing (articulated learnings you write, personal essays, etc.).

10) STRUCTURE reflection in accordance with the learning outcomes you wish to produce.

If your objective is *personal growth*, consider such reflection prompts as:

- How did the experience make me feel? How did I handle my emotional reactions?
- What assumptions or expectations did I bring to the situation? Why?
- How have past experiences influenced the manner in which I responded?
- What personal strengths / weaknesses did the situation reveal? What might I do to build on strengths / overcome weaknesses?
- What personal skills did I draw on in handling this situation? What personal skills would I like to have had in order to have handled it better and how might I develop them?

If your objective is related to *group process*, consider such reflection prompts as:

- What roles did the various members of our group play? Why did each play the roles he/she played, and what does the role each person played suggest about his/her personality, the way others within the group define him/her, his/her strengths, etc.?
- What issues did we all agree on? Why? What disagreements arose? Why?
- Did we function effectively as a group? Efficiently? In what ways “yes” / “no”?
- Why did I / we take the approach we took to our task? What might I / we have done differently? What difference might a different approach have made?

If your objective is related to *civic learning*, consider such prompts as:

- In what ways did power differentials emerge in this experience? What are the sources of power in this situation? Who benefits and who is harmed by the use of power here?
- What privilege did I/others bring to this situation? What are the sources of such privilege?
- Did I/others reinforce or challenge an assumption or social system by the way we acted?
- In taking action, was the focus on symptoms or causes of problems and was this appropriate to the situation? If not, how might the focus be changed?
- What is in the interest of the common good in this situation? In what ways is the individual good (mine /others) linked to and/or contrary to the common good? What tradeoffs are involved in deciding between the two?
- How does this experience help me to better understand the organization’s vision, mission, and goals? What does it reveal to me about the relationship between the organization and those it serves? What does it suggest about how this relationship might be improved?

If your objective is *academic learning*, consider such prompts as:

- What specific academic concepts relate to this experience?
- How was I able to apply a skill, perspective, or concept related to the academic material?
- What similarities and differences are there between the perspective on the situation offered by the academic material, and the situation as it in fact unfolded? What are the possible reasons for differences?
- How does this experience enhance my knowledge of a specific reading, theory, or concept? Does it challenge or reinforce my prior understanding? In what ways?

Reflection Strategy vs. Reflection Mechanism

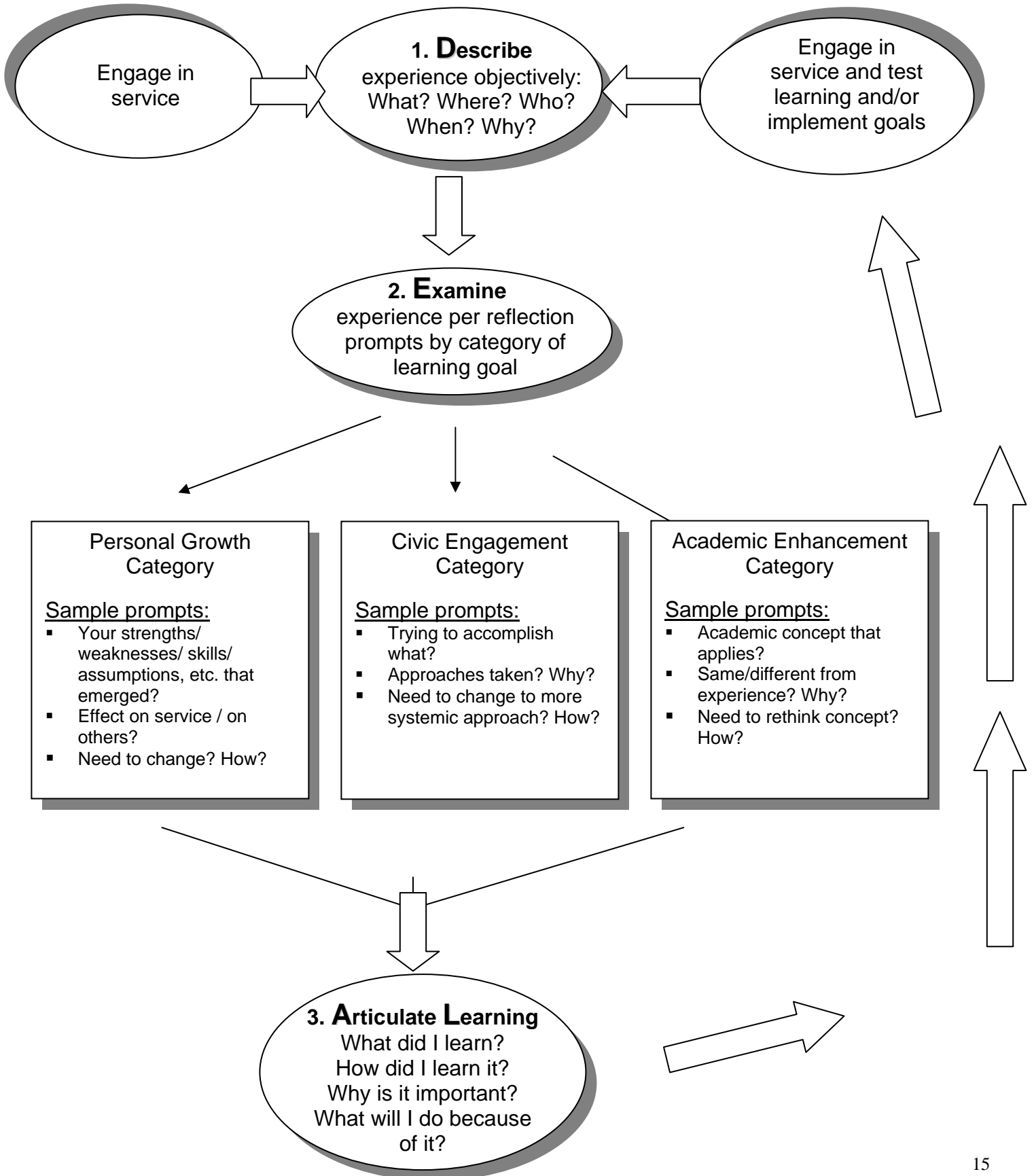
Designing a Reflection Strategy: General Principles

- Match with design of learning process and integrate with other assignments / activities
- Combine multiple mechanisms: Written, oral, individual, and collaborative ... let them build on each other
- Use early – middle – late overlay
- Provide scaffolding and guided practice (learning to learn through reflection) ... in part through feedback
- Create “safe yet critical” context for reflection
 - ◆ Answer “*what,*” “*when,*” “*where,*” “*who,*” and “*why*”
 - ◆ Consider:
 - How will you help the students learn to learn through reflection?
 - Will the students receive feedback on their reflection? From whom?
 - How might various reflection mechanisms build on each other and/or connect to other assignments?

Designing a Reflection Mechanism: General Principles

- Determine learning goals in advance
- Develop prompts to guide reflection in accordance with the learning goals
- Share with the students elements of sound reasoning and apply them as standards to deepen reflection (don’t “miss the meaning”)
- Develop a mechanism capturing and expressing key learnings
- Support students in using / acting on their learning, including setting goals
 - ◆ Answer “*how*”

Schematic Overview of the DEAL Model for Critical Reflection



DEAL: A 3-Step Model for Critical Reflection

NOTE: Don't begin a reflection activity by asking "What did you learn?" The purpose of reflection is to *generate* learning and to help students become *aware* of their learning. "What did you learn?" is a good *last* step for reflection, not a good *first* step.

NOTE: Reflection is *not* the same as *description* although description is good *first step* in reflection.

Step 1: DESCRIBE (in fair detail and as objectively as possible) ... the experience, the activity, the reading, etc.

Step 2: EXAMINE, in accordance with the learning objectives (through responding to prompts, engaging with a quote, playing games, etc.)

Step 3: ARTICULATE LEARNING

Suggested 4-part structure for written articulating learning (see worksheet):

What did I learn?

How did I learn it?

Why does it matter?

What will I do in the future, in light of it?

Learning can also be articulated orally, through a drawing, through the creation of a concept map, through physical imagery, etc. Critical thinking is perhaps best facilitated through written articulated learning.

EXAMPLE Reflection Mechanism per DEAL:

Reflection Session Framework (excerpts)

[originally adapted from Kiser's Integrative Processing Model]

Assess Progress Since Last Reflection

- ❑ What were my goals as articulated at the end of the previous reflection session and/or in my articulated learnings from the previous reflection session? What specific conclusions did I intend to enact or test based on my previous articulated learnings?
- ❑ What specific steps did I take in order to attain these goals?
- ❑ What obstacles—internal and external—hindered me? What factors made me more effective?
- ❑ In what ways did my attempts to attain goals or to enact or test conclusions proceed as expected, based on my earlier understanding, and in what ways was I surprised?
- ❑ What do my attempts to enact or test previous conclusions tell me about the validity of those conclusions? In what specific ways is my understanding of those conclusions changing yet again?
- ❑ How can I change my behavior or mentality in order to make better progress toward my goals? What specific steps do I need to take in order to continue refining my understanding?

Describe Experience(s) Objectively

Part I: Overview of “big picture” – what have I done since the last reflection session?

Part II: Home in on 2 or 3 key experiences to focus the reflection on - What were the most significant or reflection-worthy experiences?

- ❑ Where was I?
- ❑ Who else was there?
- ❑ When did this experience take place?
- ❑ What was said?
- ❑ What did I/others do?
- ❑ Why were we there? (NOTE: Be careful here. “Why” can be an objective question, as in “we were having this conversation because the Director had scheduled a meeting of the entire group and had invited both me and Mr. Smith” but it can also open the door to interpretation, as in “we were having this conversation because the Director wanted me and Mr. Smith to advise her”)

Examine Experience from a Personal Perspective

- ❑ How did this experience make me *feel* (positively and/or negatively)? How did I handle my emotional reactions? Do I believe I should have felt differently than I did?
- ❑ What *assumptions or expectations* did I bring to the situation (including my assumptions about other persons involved) and how did they affect my actions? To what extent did they prove true? If they did not prove true, why was there a discrepancy?
- ❑ How have *past experiences* influenced the manner in which I acted or responded to this situation? Am I comfortable with the influence past experiences has on me?
- ❑ What personal *strengths / weaknesses* of mine did the situation reveal? In what ways did they affect the situation, positively and negatively? What might I do to build on strengths/ overcome weaknesses?
- ❑ Why did I, or did I not, experience *difficulty working/interacting with other people*? What might I do differently next time to minimize such difficulties?
- ❑ What personal *skills* did I draw on in handling this situation? What personal skills would I like to have had in order to have handled it better and how might I develop them?
- ❑ How did this situation reveal my own *attitudes or biases*, toward other people, toward the organization in question, etc.? Do I need to make any changes?

Examine Experience from a Civic Perspective

- ❑ What was I / someone else *trying to accomplish*? In taking the actions I / they did, was the focus on *symptoms* of problems or *causes* of problems? Was the focus (symptom or cause) appropriate to the situation? How might I / they focus more on underlying causes in the future?
- ❑ What *roles* did each person / group / organization involved in the situation play and why? What alternative roles could each have played?
- ❑ Did I / other individuals act *unilaterally* or *collaboratively* and why? Should I / they have worked with others in a different way?
- ❑ Did I *reinforce* or *challenge* an assumption or social system by the way I acted? How does this experience highlight the relationship between and larger systems?
- ❑ How else could I have handled the situation? Identify both *the paths of least resistance and the paths of greater resistance*. Why did I / others follow the path I / they did?
- ❑ What *agendas* did I and others bring to the situation? Are these agendas appropriate? Are they understandable? Are they shared? How are these agendas related to larger social or cultural issues?
- ❑ In what ways did *power differentials* emerge in this experience? What are the sources of power in this situation and who benefits and is harmed? In what ways might any dependencies be eliminated?
- ❑ What *privilege* did I/others bring to this situation? What are the sources of such privilege? How am I, or others, disempowered by lack of privilege?
- ❑ How did *leadership* emerge in this situation, on my part and/or on the part of others?
- ❑ What is in the interest of the *common good* in this situation? In what ways is the *individual good* (mine or that of other people) linked to and/or contrary to the common good? What tradeoffs between them are involved?
- ❑ In what way did any other *tradeoffs* (long-term / short-term; justice / efficiency; etc.) emerge in this situation? Were the trade-offs made appropriate or inappropriate and why?
- ❑ What *changes* does this experience suggest are needed: within my group, within the organization, within our society more generally? How can these changes be accomplished: with individual action or collective action / working within the system or challenging the system / etc.?
- ❑ How does this experience help me to better understand the *organization's vision, mission, and goals*? What does it reveal to me about the relationship between the organization and those it serves? What does it suggest about how this relationship might be improved?

Examine Experience from an Academic Perspective

- ❑ What specific *elements of our course materials* relate to this experience?
- ❑ How was I able to *apply* a skill, perspective, or concept related to our academic material?
- ❑ What *similarities and differences* are there between the perspective on the situation offered by our academic material, and the situation as it in fact unfolded?
- ❑ How does this experience *enhance my knowledge* of a specific reading, theory, or concept? Does it *challenge* or *reinforce* my prior understanding?
- ❑ Based on analysis of the experience in light of course material, is the *material (or my prior understanding of it) adequate*? What reasons might there be for any differences or inadequacies? What questions should I ask to put myself in a better position to judge the adequacy of the material?
- ❑ Instructor's specific course-related questions.

Articulate Learning

- 1) What did I learn?
- 2) How, specifically, did I learn it?
- 3) Why does this learning matter, why is it important?
- 4) In what ways will I use this learning, what goals shall I set in accordance with what I have learned in order to improve myself and / or the quality of my learning and / or the quality of my future experiences / service?

DEAL Nonprofit Minor Reflection Framework
Leadership Challenge 2:
Balancing Individual Interests and the Common Good

Step 1: DESCRIBE

- A. Objectively describe what you have done and observed in interactions with your community partner (*Who did it involve? Who was not there? What occurred? What did you do? What did others do? When did it happen? Where did it take place? Why did it occur this way?*)
- B. Use course readings to define both concepts: *individual interests* and *the common good*.
- C. Based on A and B above, identify possible ways your nonprofit partner might define individual interests and the common good.

Step 2: EXAMINE

- D. Identify and list the specific individuals and groups your nonprofit partner may include in its definitions of individual interests and the common good.
 - Clients
 - Board of Directors
 - Employees/Staff
 - Volunteers
 - Other Stakeholders _____
- E. Use Diagram A to identify a specific example of a decision, strategy, or policy your nonprofit partner has implemented that impacts the organization and complete the diagram according to the steps that follow:
 - Step One: On the left side of the decision, illustrate the individual interests that are affected by this decision
 - Step Two: On the right side of the decision, illustrate the units that may be defined as “the common good” that are affected by this decision
 - Step Three: Determine both positive and negative impacts for all parties
- F. Examine trade-offs this organization has made between individual interests and the common good in this decision, as follows:
 - In what specific ways does this decision compromise individual interests in order to protect or advance the common good? In what specific ways does this decision compromise the common good in order to protect or advance individual interests?
 - What factors, internal or external, may have influenced these trade-offs? Does one interest or group of interests appear to have more influence than others?
 - What are the strengths of these trade-offs?
 - What are the limitations of these trade-offs?

G. Consider Alternatives

- Brainstorm alternative decisions that could improve the balance of individual interests and the common good. What alternative definitions of the common good might be considered? How would you evaluate these ideas based on the criteria of; effectiveness, efficiency, integrity, and/or sustainability?
- What are the benefits of implementing these alternatives?
- What are the costs of implementing these alternatives?

H. Propose a New Idea

- Based on your understanding of the current situation and alternatives, what do you believe would contribute to the optimal balance of individual interests and the common good?
- Use the evaluative criteria to explain why your idea would improve the current situation.
- How likely is it that your idea could be carried out under the current conditions?
- What would need to change in order to make it happen? What are the costs of implementing this change?

I. Recommendations for Implementation

- What do you recommend that the organization do in the short term to move towards optimal balance of individual interests and the common good?
- What do you recommend the organization do for the long term to move towards optimal balance of individual interests and the common good?
- What challenges might you face as a nonprofit leader when attempting to follow through with these recommendations?
- How would you deal with these challenges?

Step 3: ARTICULATE LEARNING (based on Steps 1 and 2 above)

What did you learn?

How did you learn it?

Why does it matter?

What will you do in light of it? (Set specific, measurable, realistic goals)

Designing for Learning: Integrating Critical Reflection and Assessment

Academic Enhancement - Learning Objectives

Learning Objective Level	Academic Enhancement Learning Objectives	Associated Guiding Prompts
LO 1: Identify	Identify a specific academic concept.	Identify a specific academic concept related to your service-learning experience that you now understand better as a result of reflection on that experience.
LO 2: Describe	Describe the academic concept.	Explain the academic concept (so that someone not in your class would understand it).
LO 3: Apply	Apply the academic concept in the context of the experience.	How does the academic concept apply to your service-learning experience? (E.g., When did you see it, or note its absence? How did, or could, you or someone else use it?)
LO 4: Analyze	Analyze your initial understanding* of the academic concept in light of the experience.	4.1 Compare and contrast your initial understanding of the academic concept and your experience of it: In what specific ways are your understanding and the experience the same and in what specific ways are they different? —AND— 4.2 What are the possible reasons for the difference(s) (E.g., bias, assumptions, lack of information on your part or on the part of the author / instructor / community)
	Develop an enhanced understanding of the academic concept in light of the experience.	How do you now understand the concept differently than you did before? In other words, what do you now see in the concept that you had not seen before (complexities, subtleties, new dimensions, etc.)?
LO 5: Synthesize	Evaluate the completeness of your understanding of the concept and of its use in the community.	6.1 How, specifically, might you now explain the concept differently, to express your enhanced understanding of it? —AND— 6.2 What additional questions need to be answered and/or evidence gathered in order to test the appropriateness of this preliminary revision in your understanding of the concept? —AND— 6.3 Based on this enhanced understanding of the concept, how, specifically, might you and/or your service organization need to act differently in the future (or, how might you have acted differently in the past) AND what are the associated benefits and challenges?
LO 6: Evaluate		

* For example, based on your encounter with it to date in readings, lectures, class discussions, previous courses, etc. Remember that your understanding of an idea is always incomplete – perhaps because it is your first encounter with it, or because it was not presented in its entirety, or because your interpretation or that of the author / instructor is limited. The very nature of ideas is that our understanding of them can always deepen, expand, or change as we continue to read, listen, experience, study, and reflect.

Civic Learning - Learning Objectives

Learning Objective Level	Civic Engagement Learning Objectives	Associated Guiding Prompts
LO 1: Identify	Identify the collective objectives at stake and the approach you or others took toward meeting them	1.1 Identify the collective objective(s) —AND— 1.2 Identify the approach that was taken with respect to those objectives
LO 2: Describe	Describe the objectives and the approach you and / or others took toward meeting them [Note: This might be a deliberate approach or an approach that was not intentional at the time but that you now see as having an effect on the objectives.]	Describe the objectives and the approach (so that someone who was not involved would understand what you / others were trying to do and how you went about it).
LO 3: Apply	Apply your understanding of the approach in the context of the objectives at stake.	How does / might the approach positively and/or negatively affect the fulfillment of the objectives?
LO 4: Analyze	Analyze the approach in light of alternatives	4.1 What alternative approach(es) was (were) available and how would it (they) affect the fulfillment of the objectives? (E.g., directing action towards a group v. an individual; towards a root cause v. a symptom; towards a long-term v. a short-term solution.) -- AND -- 4.2 What are the possible reasons for the approach you (they) took and/or for not taking the alternative(s)? (E.g., attitudes, interests, agendas, assumptions, knowledge, resources.)
LO 5: Synthesize	Develop the steps necessary to make any needed improvements in the short term.	5.1 In what specific way(s) can you (they) improve on your (their) involvement in processes of collective action in the short term [Note: such improvement might include reconsidering the objectives as well as the approach]? —AND— 5.2 What are the benefits and risks/challenges in doing so?
LO 6: Evaluate	Evaluate your (their) role as an agent(s) of long-term, sustainable, and/or systemic change.	6.1 What could be involved in moving future action in the direction of long-term, sustainable, and/or systemic change? (E.g., change that addresses underlying causes and that does not cause inappropriate dependencies.) —AND— 6.2 What challenges or setbacks might be faced in this process and how might they be dealt with? —AND— 6.3 How might progress be assessed or monitored in this process of change agency?

Leadership Challenge 2: Balancing Individual Interests and the Common Good [July 2007]

Students should be able to articulate their understanding of the interconnections between individual interests (of employees, board members, clients, and individual organizations) and the common good (the well-being of an entire community) as defined by their community partner. Student learning should reflect understanding of trade-offs NP leaders make when trying to meet various interests. Students should generate recommendations for improved balance of individual interests and the common good in terms of the evaluative criteria (effectiveness, efficiency, integrity, sustainability) and in light of the challenges NP leaders face.

<p>LO1: Identify: Use course readings to define the concepts of individual interests and the common good.</p>	<p><input type="checkbox"/> Identifies possible definitions of individual interests according to readings. <input type="checkbox"/> Identifies possible definitions of the common good according to readings.</p>
<p>LO2: Describe: Explain the concepts of individual interests and the common good in your own words.</p>	<p><input type="checkbox"/> Explains individual interests in own words. <input type="checkbox"/> Explains the common good in own words.</p>
<p>LO3: Apply: Provide a (n) example(s) from your partner organization that illustrates the relationship between individual interests and the common good.</p>	<p><input type="checkbox"/> Uses a specific example to illustrate individual interests, the common good, and the relationship between them as defined by partner organization.</p>
<p>LO4: Analyze: Analyze decisions your partner organization has made that result in trade-offs between individual interests and the common good.</p> <p>Discuss the reasons for and implications of these trade-offs in light of the evaluative criteria.</p> <p>Compare/contrast with possible alternatives for increased balance in accordance with evaluative criteria.</p>	<p><input type="checkbox"/> Explains potential tensions between individual interests and the common good in the context of the organization. <input type="checkbox"/> Discusses current organizational choices that impact the balance between individual interests and the common good, in terms of their strengths and their limitations (in light of the evaluative criteria). <input type="checkbox"/> Discusses internal and external factors that influence balance between individual interests and the common good. <input type="checkbox"/> Considers alternative choices that would alter alignment, including their costs and benefits <input type="checkbox"/> Compares and contrasts current alignment with that potentially produced through alternative choices, in light of evaluative criteria.</p>
<p>LO5: Synthesize: Propose an idea for improved balance in light of the evaluative criteria.</p>	<p><input type="checkbox"/> Provides a new idea for improved balance between individual interests and the common good <input type="checkbox"/> Explains why new idea might lead to improved balance, in light of evaluative criteria. <input type="checkbox"/> Discusses changes that need to occur for the new idea to be implemented. <input type="checkbox"/> Discusses likelihood of new idea being carried out.</p>
<p>LO6: Evaluate: Provide <u>BOTH</u> short term and long term recommendations for improved balance while addressing associated challenges.</p>	<p><input type="checkbox"/> Provides short term recommendations for moving towards optimal balance. <input type="checkbox"/> Provides long term recommendations for moving towards optimal balance. <input type="checkbox"/> Discusses challenges faced when implementing these recommendations. <input type="checkbox"/> Provides ways to deal with challenges of implementing recommendations.</p>

DEAL Model Critical Thinking Standards Table

Critical Thinking Standard	Description	Associated questions to ask to check your thinking
Integration	<i>Service experience clearly related to the learning</i>	<ul style="list-style-type: none"> ▪ Have I clearly shown the connection between my experience and my learning?
Clarity	<i>Expands on ideas, express ideas in another way, provides examples or illustrations where appropriate.</i>	<ul style="list-style-type: none"> ▪ Did I give an example? ▪ Is it clear what I mean by this? ▪ Could I elaborate further?
Accuracy	All statements are <i>factually correct</i> and/or <i>supported with evidence</i> .	<ul style="list-style-type: none"> ▪ How do I know this? ▪ Is this true? ▪ How could I check on this or verify it?
Precision	Statements contain <i>specific information</i>	<ul style="list-style-type: none"> ▪ Can I be more specific? ▪ Have I provided sufficient detail?
Relevance	All statements are <i>relevant to the question</i> at hand; all statements connect to the central point.	<ul style="list-style-type: none"> ▪ How does this relate to the issue being discussed? ▪ How does this help us/me deal with the issue being discussed?
Depth	<i>Explains the reasons behind conclusions and anticipates and answers the questions that the reasoning raises and/or acknowledges the complexity of the issue.</i>	<ul style="list-style-type: none"> ▪ Why is this so? ▪ What are some of the complexities here? ▪ What would it take for this to happen? ▪ Would this be easy to do?
Breadth	<i>Considers alternative points of view or how someone else might have interpreted the situation.</i>	<ul style="list-style-type: none"> ▪ Would this look the same from the perspective of....? ▪ Is there another way to interpret what this means?
Logic	The <i>line of reasoning makes sense</i> and follows from the facts and/or what has been said.	<ul style="list-style-type: none"> ▪ Does what I said at the beginning fit with what I concluded at the end? ▪ Do my conclusions match the evidence that I have presented?"
Significance	The conclusions or goals represent a (the) <i>major issue</i> raised by the reflection on experience.	<ul style="list-style-type: none"> ▪ Is this the most important issue to focus on? ▪ Is this most significant problem to consider?
Fairness	<i>Other points of view are represented with integrity (without bias or distortion)</i>	<ul style="list-style-type: none"> ▪ Have I represented this viewpoint in such a way that the person who holds it would agree with my characterization?

Modified source: Paul, R & Elder, L. 2001. The Miniature Guide to Critical Thinking. The Foundation for Critical Thinking. Santa Rosa, CA. www.criticalthinking.org

DEAL Model Critical Thinking Rubric [August 2007]

[Modified source: Paul, R & Elder, L. 2001. The Miniature Guide to Critical Thinking. The Foundation for Critical Thinking. Santa Rosa, CA. www.criticalthinking.org]

	completely lacking (1)	under-developed (2)	good (3)	excellent (4)
CT Set A				
<i>Integration</i>	Provides no clear connection between the experience and the learning	Provides minimal and/or unclear connection between the experience and the learning	Provides adequate and reasonably clear connection between the experience and the learning	Provides thorough and very clear connection(s) between the experience and the learning
<i>Relevance</i>	Misclassifies the learning and/or inappropriately shifts from one category of learning goal to another; fails to keep the discussion specific to the learning	Discusses learning that is relevant to the category of learning goal, but much of the discussion is not related to the learning	Discusses learning that is relevant to the category of learning goal and keeps the discussion reasonably well focused on the learning	Discusses learning that is relevant to the category of learning goal and keeps the discussion well-focused on the learning
<i>Accuracy</i>	Consistently makes inaccurate statements and/or fails to provide supporting evidence for claims <ul style="list-style-type: none"> <u>Academic category:</u> Incorrectly identifies, describes, and/or applies academic concept(s) 	Makes several inaccurate statements and/or supports few statements with evidence <ul style="list-style-type: none"> <u>Academic category:</u> Is not accurate in identifying, describing, and/or applying academic concept(s) 	Usually but not always makes statements that are accurate and well-supported with evidence <ul style="list-style-type: none"> <u>Academic category:</u> Accurately identifies, describes, and applies appropriate academic concept(s) 	Consistently makes statements that are accurate and well-supported with evidence <ul style="list-style-type: none"> <u>Academic category:</u> Accurately identifies, describes, and applies appropriate academic concept(s)
<i>Clarity</i>	Consistently fails to provide examples, to illustrate points, to define terms, and/or to express ideas in other ways	Only occasionally provides examples, illustrates points, defines terms, and/or expresses ideas in other ways	Usually but not always provides examples, illustrates points, defines terms, and/or expresses ideas in other ways	Consistently provides examples, illustrates points, defines terms, and/or expresses ideas in other ways
<i>Precision</i>	Consistently fails to provide specific information, descriptions, or data	Only occasionally provides specific information, descriptions, or data	Usually but not always provides specific information, descriptions, or data	Consistently provides specific information, descriptions, or data
<i>Writing</i>	Consistently makes typographical, spelling, and/or grammatical errors	Makes several typographical, spelling, and/or grammatical errors	Makes few typographical, spelling, and/or grammatical errors	Makes very few or no typographical, spelling, and/or grammatical errors
CT Set B				
<i>Depth</i>	Fails to address salient questions that arise from statements being made; consistently over-simplifies when making connections; fails to consider any of the complexities of the issue	Addresses few of the salient questions that arise from statements being made; often over-simplifies when making connections; considers little of the complexity of the issue	Addresses some but not all of the salient questions that arise from statements being made; rarely over-simplifies when making connections; considers some but not all of the full complexity of the issue	Thoroughly addresses salient questions that arise from statements being made; avoids over-simplifying when making connections; considers the full complexity of the issue
<i>Breadth</i>	Ignores or superficially considers alternative points of view and/or interpretations	Gives minimal consideration to alternative points of view and/or interpretations and makes very limited use of them in shaping the learning being articulated	Gives some consideration to alternative points of view and/or interpretations and makes some use of them in shaping the learning being articulated	Gives meaningful consideration to alternative points of view and/or interpretations and makes very good use of them in shaping the learning being articulated
<i>Logic</i>	Draws conclusions and/or sets goals that don't follow at all from the line of reasoning presented	Draws conclusions and/or sets goals that only occasionally follow reasonably well from the line of reasoning presented	Draws conclusions and/or sets goals that usually follow well from the line of reasoning presented	Draws conclusions and/or sets goals that consistently follow very well from the line of reasoning presented
<i>Significance</i>	Draws conclusions and/or sets goals that don't address the most significant issue(s) raised by the experience	Draws conclusions and/or sets goals that only minimally address the significant issue(s) raised by the experience	Draws conclusions and/or sets goals that usually address fairly significant issue(s) raised by the experience	Draws important conclusions and/or sets meaningful goals that substantially address the most significant issue(s) raised by the experience
<i>Fairness</i>	Consistently represents others' perspectives in a biased or distorted way	Occasionally represents others' perspectives in a biased or distorted way	Often but not always represents others' perspectives with integrity	Consistently represents others' perspectives with integrity (without bias or distortion)

Select References Related to Critical Reflection

- Ash, S.L., Clayton, P.H., & Moses, M.G. (2007). *Learning through Critical Reflection: A Student Tutorial*.
----- Forthcoming. *Teaching and Learning through Critical Reflection: An Instructor's Guide*. Sterling, VA. Stylus Publishing.
- Ash, S.L., Clayton, P.H., & Atkinson, M. (2005). Integrating Reflection and Assessment to Capture and Improve Student Learning. *Michigan Journal for Community Service-Learning*, 11(2). pp. 49-59.
- Ash, S.L. & Clayton, P.H. (2004). The Articulated Learning: An Approach to Guided Reflection and Assessment. *Innovative Higher Education*, 29(2). pp. 137-154.
- Bringle, R.G., & Hatcher, J.A. (1999, Summer). Reflection in service-learning: Making meaning of experience. *Educational Horizons*, 179-185.
- Clayton, P.H. & Ash, S.L. (2005). Reflection as a key component in faculty development. *On the Horizon*, 13(3).
- Clayton, P.H. & Ash, S.L. (2004). Shifts in perspective: Capitalizing on the counter-normative nature of service-learning. *Michigan Journal of Community Service-Learning*, 11(1). pp. 59-70.
- Conrad, D., & Hedin, D. (1990). Learning from service: Experience is the best teacher--or is it? In Jane Kendall and Associates (Eds.), *Combining service and learning. I* (pp. 87-98). Raleigh, NC: National Society for Internships and Experiential Education.
- Eyler, J., & Giles, D.E. (1999). *Where's the learning in service-learning?*. San Francisco, CA: Jossey-Bass.
- Eyler, J., Giles, D.E., & Schmiede, A. (1996). *A practitioner's guide to reflection in service-learning*. Nashville, TN: Vanderbilt.
- Hatcher, J.A., Bringle, R.G., & Muthiah, R. (2004). Designing Effective Reflection: What Matters to Service-Learning? *Michigan Journal of Community Service Learning*, 11 (1), 38-46.
- Howard, J. (1998). Academic Service Learning: A Counter Normative Pedagogy. *New Directions in Teaching and Learning*, 73, pp. 21 - 29. San Francisco, CA: Jossey-Bass.
- Kiser, P.M. (1998). The Integrative Processing Model: A framework for learning in the field experience. *Human Service Education*, 18, 3-13.
- Mezirow, J & Associates. (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco, CA: Jossey-Bass.
- King, P.M., & Kitchener, K.S. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco, CA: Jossey-Bass.
- Paul, R. (1993). *Critical thinking: What every person needs to survive in a rapidly changing world*. Santa Rosa, CA: Foundation for Critical Thinking.
- Rogers, R. (2001). Reflection in higher education: A concept analysis. *Innovative Higher Education*, 26, 37-57.
- Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York, NY: Basic Books.
- Steinke, P., & Buresh, S. (2002). Cognitive outcomes of service-learning: Reviewing the past and glimpsing the future. *Michigan Journal of Community Service Learning*, 8, 5-14.
- Welch, M. (1999). The ABCs of reflection: A template for students and instructors to implement written reflection in service-learning. *NSEE Quarterly*, 25, 22-25.