Reflection: K-12 Service-Learning
(http://www.servicelearning.org/instant_info/fact_sheets/k-12_facts/reflection/)

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Introduction
In today’s world, it is easy for youth to look for instant solutions to complex problems. Reflection in service-learning provides students and teachers with a way to look back at their experiences, evaluate them, and apply what is learned to future experiences. Students build skills necessary for analyzing and solving problems and developing creative solutions. Without reflection, students just report on experiences instead of examining how what they do impacts themselves and those they serve. Reflective activities that are designed well and implemented thoughtfully allow students to acquire a deeper understanding of the world around them and of how they can make positive contributions to society.

Reflection in service-learning has been called the “link that ties student experiences in the community to academic learning” (Eyler & Giles, 1999, p. 171). Reflection in the service-learning field can be defined as “the use of creative and critical thinking skills to help prepare for, succeed in, and learn from the service experience, and to examine the larger picture and context in which the service occurs” (Toole & Toole, p. 100). Reflection is an important means by which students integrate prior knowledge and experiences with new experiences to develop critical thinking and problem solving skills. As Bringle and Hatcher (1999) noted, “Experience becomes educative when critical reflective thought creates new meaning and leads to growth and the ability to take informed action” (p. 180). This fact sheet explores the theoretical basis for reflection as a practice, discusses outcomes of reflection in a service-learning context, outlines the stages of and best practices for reflection, and provides examples of K–12 service-learning reflection activities. A more comprehensive guide to K–12 service-learning reflection is being developed by RMC Research Corporation for the National Service-Learning Clearinghouse. The guide will be available in summer 2003.

Theoretical Basis for Reflection in Service-Learning
The theoretical basis for reflection as a practice in education is grounded in the work of John Dewey. Bringle and Hatcher (1999) noted that at the core of Dewey’s educational philosophy were three principals:

• Education must lead to personal growth;
• Education must contribute to humane conditions; and
• Education must engage citizens in associate with one another (p. 181).

Dewey’s “educational continuum” distinguished between educational experiences that are worthwhile versus those that are not. Worthwhile educational experiences “do something to prepare a person for later experiences of deeper and more expansive quality. That is the very meaning of growth, continuity, and reconstruction of experience” (Dewey, 1938, p. 47). The connection between thought, “worthwhile” educational experiences, action, and further learning is the cornerstone of the service-learning reflective process. Dewey saw reflective thinking as a way to discover specific connections between actions and consequences. He believed that
reflective thinking would help students learn from experience and improve their problem solving skills.

Dewey’s work formed the basis for David Kolb’s (1984) model of experiential learning. In this model, learning, change, and growth occur through a continuous cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation. Learners base their initial actions and involvements on concrete experiences. They then reflect on and observe experiences from many perspectives. Abstract conceptualization occurs when learners create concepts and integrate observations in logically sound theories. These theories are used by learners to make sound decisions and solve problems. The experiential learning cycle allows learners to understand and modify behavior and/or choose new experiences. Reflection leads to change and is therefore a basic element in learning (Billig & Kraft, 1997, p.15–20).

King and Kitchener’s (1994) “Reflective Judgment Model” delved deeper into the processes described by Dewey and Kolb. In this model, a learner passes through various stages of reflection based on cognitive characteristics and epistemic assumptions. These stages are consolidated into three phases of reflection: pre-reflective, quasi-reflective, and reflective thinking. In the pre-reflective phase, knowledge is first limited to simple, concrete observations about what a person thinks is true and then starts to develop into knowledge being either absolutely certain or temporarily uncertain. In the quasi-reflective phase, individuals understand that knowledge can be uncertain and that some problems are not easily solved. They are able to use evidence, but have difficulty justifying their beliefs and drawing reasoned conclusions. Finally, in the reflective phase knowledge is seen not as a given but as a means of reasoned inquiry and problem solving (King & Kitchener, 1994, p. 15). Solutions and judgments are based on data and inquiry, but can always be reevaluated in light of new evidence.

The models described above illustrate how reflection in service-learning promotes higher-order thinking skills in students. Promoting higher-order thinking skills is important because these skills (i.e., analysis, synthesis, evaluation) enable students to learn, inquire, reason, and make sense of new information. Specifically, King and Kitchener’s model describes stages of cognitive activity that students progress through as a result of reflective activities. These stages align with the levels of higher-order thinking skills described by Bloom (1956) and Marzano et al. (1988). Bloom’s Taxonomy arranges objectives educators want students to know in a hierarchy from simple to more complex. The six objectives identified by Bloom as being critical to the learning experience are: knowledge, comprehension, application, analysis, synthesis, and evaluation. Marzano et al. (1988) expanded on the work of Bloom and other scholars to identify a set of eight core thinking skills. These include: focusing, information gathering, remembering, organizing, analyzing, generating, integrating, and evaluating. When teachers incorporate higher-order thinking skills into reflection activities, the service-learning experience becomes deeper and more meaningful for students.

Stages of the Reflective Process
The components, or stages, of the reflective process in service-learning mirror the higher-order thinking skills process. In the reflective process, students think about what they have experienced, analyze information, examine their values before and after their experience, and apply what they have learned to future experiences (Stephens, 1995, p. 31). Reflection occurs in
at least three stages in the service-learning process: pre-service, during service, and post-service.

In pre-service reflection activities, students examine their beliefs, assumptions, and attitudes about issues. They do this when they choose service projects and prepare to engage in service. During service, students have the opportunity to learn from their peers, share observations, ask for and receive feedback, ask questions, and solve problems. Teachers can evaluate student work and provide feedback as the reflection process continues. After service, students look back at their initial beliefs, assumptions, and attitudes to assess their own development. They also evaluate their projects, apply what they learn, and develop ways to solve problems that may arise in the future (Toole & Toole, 1995, pp. 106–107).

Perry and Albright (1999) summarize the five steps involved in the act of reflection:
1. Remembering and thinking about what was experienced.
2. Relating to current and prior experiences.
3. Representing the experience by actively participating in service-learning.
4. Reaching further into the experience by extending thinking and thinking at higher cognitive levels.
5. Revisiting the experience by looking at the value of the experience and exploring what else can be learned from it.

**Outcomes of Reflection in Service-Learning**

Service-learning combined with opportunities for reflection offers many benefits to students. Reflection outcomes for students generally fall into three categories: academic learning, personal development, and civic engagement.

**Academic Learning Outcomes**

Reflection helps students gain a deeper understanding of what they learn, applying what they learn to real-life situations, and developing increased problem-solving skills (Eyler & Giles, 1999, p. 173). Students also improve basic skills, such as reading, writing, and speaking, and develop higher level thinking through reflection (Conrad & Hedin, 1987, p. 40). Additional studies cited by Billig (2002) show that students engaged in service-learning and reflection demonstrated improved engagement in school, higher grades and test scores, an improved sense of educational accomplishment, better homework completion, and were less likely to drop out of school compared to students not involved in service-learning activities (p.661). Reflecting on service encourages students to deal with the root causes of complex issues. Students learn to look for the big picture and to synthesize what they have learned.

**Personal Development Outcomes**

Personal development outcomes that result from reflection include: (1) Awareness of changes in oneself, (2) a sense of community, and (3) ability to take charge of one’s own life (Conrad and Hedin, 1987, p. 41). Opportunities to reflect on service help young people feel more confident in themselves and their accomplishments, connect to others, and link the personal and the academic. Students develop an increased sense of personal power and are better able to clarify and accomplish their goals.
**Civic Engagement Outcomes**

Studies by Eyler and Giles (1999) demonstrated that reflection is a predictor of openness to new ideas, ability to see issues in a new way, “increased commitment to use of public policy to achieve social justice, and a more systemic locus of problem causes and solutions” (p. 173). Eyler, Giles, and Schmiede (1996) discovered that students engaged in critical reflection are more likely to apply what they learn to understanding and solving social problems. Reflection also allows youth to form identities in community service settings, especially with regard to agency, social relatedness, and moral-political awareness (Leming, 2001, p. 33).

**Best Practices for Reflection**

Reflection activities work best when they are designed well, planned in advanced, and implemented thoughtfully. Reflection is a continuous process and activities can occur at any time during the process. Effective reflection incorporates the following best practices:

1. Reflection should occur before the service-learning experience, during the experience, and after the experience. A national study of 30 school-sponsored youth participation programs conducted by Conrad and Hedin in 1982 revealed that “the key factor in stimulating complex thinking and improving the problem-solving ability of students was the existence, regularity, and quality of a reflective component” (Conrad & Hedin, 1987, p. 40).
2. Reflection activities should clearly link the service-learning experience to academic standards and curriculum objectives.
3. Frequent opportunities for discussion of service should be provided so students can interact with their peers, mentors, and those they serve.
4. Reflection activities should challenge students to test assumptions about their values and to explore, clarify, and alter their values.
5. Students should be included in the planning of reflection activities so that they have ownership of the process.
6. Reflection activities should incorporate various learning styles (visual, auditory, kinesthetic) and experiences to encourage students to think in different ways.
7. Teachers should provide continual feedback to students so they can improve their critical thinking and analytical skills during the reflective process.

Sources: Bringle & Hatcher, 1999; Conrad & Hedin, 1997; Eyler & Giles, 1999; Eyler, Giles, & Schmiede, 1996; Toole & Toole, 1995).
Examples of Reflection Activities

Pre-Service

Many types of reflection activities lend themselves to the development of higher-order thinking skills. For example, Wade (1997) describes a pre-service reflection activity for middle school students. Students interview a guest from a community agency where the students will be working on a service project. Before the visit, students are asked to develop a set of questions to facilitate the discussion. They form small groups to brainstorm questions and then return to the large group to discuss their questions. The questions are then edited and an interview form is prepared so that students may take notes during the interview and take turns asking questions. After the guest leaves, students are instructed to reflect on the interview by answering some questions individually, such as: What did you learn from the community member that you did not already know? Does this change any ideas or preconceptions you had about the people you will be working with? What changes, if any, will you make to your plans or ideas for the service project? What is our next step? Students thus become active members of the information gathering process, not passive onlookers. Students are able to evaluate the speakers’ comments and apply what they learn to the service project design. They can infer what the next steps in the process will be. Students also gain an understanding of multiple perspectives about service by talking with each other, the teacher, and the community agency representative.

During Service

Students can be engaged in reflection during service through activities including discussion, interaction with peers, and journaling. Reflection activities, especially in the elementary school grades, can be simple and still develop higher-order thinking skills. Perry and Albright (1999) developed an activity for integrating reflection into elementary school literacy instruction that can also be used in service-learning. Students write about their service experience in a journal and then share their journal with a “buddy” in their class. The reflection process is enhanced as students write back and forth to each other to share their perspectives and ideas. Teachers can provide feedback on service activities and on basic skills such as writing. Higher-order thinking skills are attained as students summarize and evaluate their experiences, develop an understanding of their peers’ perspectives, and apply knowledge gained to the service project.

Post-Service

Reflection after service-learning activities provides a way for students to look back on their accomplishments and interactions with others. Campbell, Campbell, and Dickinson (1996) suggest an activity particularly suited to high school students where they reflect on receiving feedback from adults during their service activity. Teachers can pose a set of questions that prompt students to consider multiple aspects of adult feedback, such as: What feedback did you receive and what was your reaction to it? What do you think the adult understood about your work? What did they misunderstand? What did you learn about yourself by having this conversation with the adult? What would have made the conversation better? What will you do
differently the next time when you are asked to get adult feedback? How does this relate to the world of work where employees get feedback from supervisors? Students use higher-order thinking skills, such as evaluation, inference, summarization, and understanding multiple perspectives in this type of reflection activity. The activity can be extended in several ways, e.g. students can role play adults giving feedback to others. They can critique the feedback and generate a set of appropriate rules for people to follow when giving feedback. Teachers and students can also discuss the differences between constructive and destructive feedback, including what makes feedback constructive.

**Bibliography**


