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Reflection as a Tool for Turning Service Experiences into Learning Experiences

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The salvation of this human world lies nowhere else than in the human heart, in the human power to reflect, in human meekness and in human responsibility.

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Czech President Vaclav Havel, addressing the United States Congress, February, 1990.

It is good that many schools nowadays can provide a rich and interesting environment for their pupils, especially in the early stages of their schooling...The problem is, we are often so busy in-putting, that adequate time (let alone ample), is rarely offered to children to rediscover what has "sunk in," in order to reflect on it further before they are required to re-present what they have "learned."

Pat D'Arcy, *Making Sense, Shaping Meaning*, 1989

Community service-learning projects are potentially wonderful "textbooks." They involve complex problems, real-life contexts, and exposure to people who possess wide expertise and resources not found in schools. Both the challenge and the strength of such textbooks is that they come without chapters, footnotes, labeled pictures, list of key concepts, and review questions at the end. If students are going to learn from service, it will not be instant or effortless. They will be required to organize and construct their own understanding from the rich content embedded within these experiences.

For this reason, no activity is more central to understanding and implementing service-learning programs than reflection. In a frequently cited passage, Dan Conrad and Diane Hedin (1987, p. 39) point out:

"To say that experience is a good teacher... does not imply that it's easily or automatically so. If it were, we'd all be a lot wiser than we are. It's true that we can learn from experience. We may also learn nothing. Or we may, like Mark Twain's cat who learned from sitting on a hot stove lid never to sit again, learn the wrong lesson."

In service-learning, the term *reflection* refers to those thinking processes responsible for converting service experiences into productive learning experiences.

Our most persistent observation from several years of intensive staff development work in this field, however, is that the connections between service projects and formal learner outcomes are often underdeveloped. Although service-learning practitioners give universal homage to the term reflection, it is rarely if ever defined or well understood. Teachers, who are responsible for helping students to link service and learning, frequently lament: "Reflection. That's the part that I have not been doing very well."

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In this chapter, we suggest a definition of reflection for the field of service-learning, describe how it might look and operate within a classroom, and present a variety of practical strategies which teachers can use.

Reflection Defined

When people reflect in everyday life, they pause to review, ponder, contemplate, analyze, or evaluate an experience or information to gain deeper understanding. This ability to reflect gives people the freedom, power and responsibility, perhaps unique among all living things, to continually choose or adjust the direction of their lives. That is why reflection is at the heart of becoming a self-directed and lifelong learner. For the purposes of applying this concept to service-learning, we have defined reflection as the *use of creative and critical thinking skills to help prepare for, to succeed in and to learn from the service experience, and to examine the larger picture and context in which the service occurs*. Let's look closer at some of the words in the definition:

- 1). *Critical thinking skills*.. If students are to do more than simply recount their service experience, teachers must challenge and teach their pupils how to think critically—to make observations and inferences, to analyze a situation, to organize and interpret information, to weigh the accuracy of diverse points of view, to develop and defend their solutions, and to evaluate the results and assess the meaning of their work. Because learning and practicing these skills improve the

quality and output of student dialogue, such practice should form the cornerstone for reflective sessions. To think reflectively is to think critically.

3 2). *Creative Thinking Skills*. We have included creative as well as critical thinking because we reflect not only to understand, but also to create—to generate as well as to evaluate. Creativity is central to the mission of service-learning because there are few community problems that are not in great need of fresh thinking, ingenuity and imagination. Involvement in service can provide students with an internship in how to develop innovative solutions to address important community needs, such as the following:

- At a South Central Los Angeles high school, students raise and market "Food From the 'Hood" (including a natural foods salad dressing called "Straight Out 'the Garden Creamy Italian") to raise money to rebuild their community and fund college scholarships.
- On an Evergreen, Washington middle school campus, an entire student body voted to build and operate the area's first native plant wetland nursery to restore local stream beds.
- In rural Minnesota, a 3rd grade class, to renovate their city's neglected rest stop on the state highway, prepared a plan, secured governmental approval, raised resources, and completed the painting and landscaping required to give the place new life.

3). *Reflection as a "help."* Reflection plays a vital but not exclusive role in the educational dimension of service-learning projects. When students tackle community problems, they not only need to reflect; they must often learn new skills and knowledge. To prepare for a service project, for instance, students may need instruction in how to conduct interviews, lobby state legislators, care for injured wildlife, conduct water quality testing, or take someone's blood pressure, all of which might be taught through direct instruction.

4). *Preparing, succeeding and learning*. Although the literal definition of reflection means "looking backward," reflection occurs at every phase of the service-learning cycle: reflection to prepare for service, reflection during action, and reflection upon action. The idea is that

thoughtfulness permeates the entire service endeavor. Reflection plays a distinct role at each stage. In one cross-age tutoring program, for example, the preparation of the older students included reflecting about what they were like at the same age as their tutees. During the project, students reflected on the frustrations and problems they were encountering as tutors and brainstormed solutions. Finally, after the project, students reflected in order to synthesize what they had learned about teaching, about helping others, and about themselves.

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5). *Examining the larger picture.* Too often, people limit the focus of reflection to affective issues ("How did you feel about the project?") or only to the service project itself. The potential educational outcomes increase dramatically when teachers and students connect the service experience to broader, more comprehensive themes.

If students are volunteering at a hospital, for example, the same experience might be used to support outcomes in youth development, citizenship, vocational education, or any academic subject. It depends on which lens the students and teacher place over the experience. If the focus is on vocational education, students might select a career to investigate. From a civic education point of view, students could examine the issue of health care reform through research and interviews with medical staff or debate the justice or feasibility of universal health care. In terms of personal development, a teacher might ask students to write about how the helping experience or the exposure to those who are ill has changed them. Academically, a hospital can offer an opportunity to learn science, math, health education, communication, artistic design, and even foreign languages.

Envisioning Reflective Classrooms

Service-learning stretches the typical classroom format. When students act as health peer educators, museum guides, hospital volunteers, or conflict mediators, they enter situations which, like all real life contexts, are full of unpredictability, novelty, and the need for quick decision-making. Students are required not only to recall information, but to apply it using insight, judgment, know-how, and even wisdom. They therefore require a classroom that gives them the

intellectual elbow room to pose their own problems, face perplexity, hypothesize, organize and interpret experience, and search for understanding.

5 Donald Schon (1983, 1987), whose landmark work has been directed at improving professional education in the United States, has written extensively about one model of such a classroom that he calls a "reflective practicum." It is an intriguing mixture of terms because reflective typically means to stand back from the world, and practicum means to be immersed in it. It is a model already found in studios of art and design, conservatories of music and dance, athletics, counseling, and apprenticeships in the crafts. The defining characteristic of all of these learning environments is that students are required to *demonstrate* some competency—either to perform a skill or create a genuine product. Because one can't learn to play the violin or professionally counsel someone solely from textbooks or lectures, such classrooms require a combination of real-life practice, traditional academics, and a healthy amount of student dialogue, reflection and self-assessment. The concept offers a perfect classroom model for service learning.

If we walked into a reflective session for service learning, students would be elaborating, questioning, and critiquing the peaks and valleys of their respective experiences from the past week. Student dialogue would be at the core of this part of the instructional process. When students brought up problems encountered in their service work, the teacher would likely turn to the group and ask, "*What do the rest of you think?*" This is what we call "biting your tongue" teaching because instructors have to be willing to avoid the tendency to give too much information and to do too much thinking for students. Here, teachers are in the role of coaches or facilitators, not "experts," because the focus is on students developing their own ability to reason and make wise decisions. Different student outcomes require different approaches to teaching (Joyce, Weil, Showers, 1992).

At first glance this process may not seem unique. Teachers often encourage students to reflect about what they are learning. What is distinctive to service learning is that reflection is grounded in real-life roles, contexts, and performances. When elementary school students reflect on how a local stream might be restored to life, the discussion is extra lively because the class is going to evaluate and actually use the best ideas. In an art class studying pottery, students have

extended conversations about the suitability of various glazes because the pottery will be used as part of an "empty bowl" luncheon project to raise money for famine relief in Africa. When middle school students take their training in first aid, they ask questions throughout because they are going to volunteer as members of a search-and-rescue team in a federal wilderness area. Necessity is not only the mother of invention; it is also the mother of significant cognition.

The Service-Learning Spiral

To illustrate the role of reflection within the life of a single service project, we've adapted David Kolb's (1984) model of experiential learning to show the service-learning cycle (see Figure

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1). Our version of the model differs from others for three reasons:

- 1). Reflection infuses all parts of the process rather than being a stage that follows experience.
- 2). The cycle is shown as a spiral rather than a circle, illustrating that students bring new competence to each successive experience.
- 3). Although it is common and appropriate for many experiential learning activities to start with the experience itself, service learning activities typically begin by students and/or community identifying a need, creating a project to meet that need, and then planning and preparing for implementation.

How classes identify and implement these service projects will directly affect the quality of group reflection throughout the cycle. What activates, vitalizes, and drives student thoughtfulness and dialogue is that: (1). the project addresses a genuine need identified by the community—it is worthy of reflection; and (2). there is some significant level of student responsibility, ownership or choice—the outcomes are important to and in the hands of youth (shared with whatever partners are involved). Without these two attributes, even the most highly skilled adult facilitator will likely face an uncommunicative class.

In this section, we present a brief look at how reflection might contribute to each stage of the service spiral. The content before, during, and after the project can include at least three dimensions: reflection on the task itself; reflection on the social, political, economic, vocational or other contexts of the task; and reflection on related issues of the human spirit, such as questions of purpose, meaning, suffering, hope, friendship, justice, care, and responsibility.

Reflection Before Service

7 Reflection *before* service may seem a contradiction, but we commonly reflect on and use prior knowledge when we plan and design any new project. In preparing for a service project, youth recollect, propose, hypothesize, build models, predict and make judgments. Students reflect when they choose a service project (*What do we wish were different in our community?*); when they clarify project goals and action plans: (*What do we want to see happen?*); and when they prepare for the service itself: (*How do we feel about participating in this project?*). In preparing students for an intergenerational project, for instance, students might sit in a wheelchair, put Vaseline on their glasses, and wear thick gloves while performing fine motor tasks to better understand the challenges faced by some senior citizens. Youth will also require an opportunity to talk about their personal expectations and fears about visiting a nursing home. In service-learning, students often enter placement sites where they are inexperienced and initially uncomfortable.

A critical component of pre-service reflection involves students' examining the existence and source of their current attitudes and beliefs about immigrants, people with disabilities, the environment or any other issue they face. Students often bring to projects preexisting ideas based on brief experiences, secondhand knowledge, or societal stereotypes. D'Arcy (1989, p. 3) cites a core principal learned from science educators in the United Kingdom: "If a pupil's own picture of how the world works is ignored, her ability to make sense of someone else's picture, the teacher's or the textbook writer's, (*or in our case, the service experience*) is seriously impeded."

A simple activity to tap existing attitudes, developed by Francis E. Pratt (n.d.) for intergenerational learning, recommends the following three step activity:

- 1). List 10 words you would use to describe senior citizens (or any other group);
- 2). Put a plus, minus, or zero next to each trait to mark whether it is positive, negative, or neutral;
- 3). Write a paragraph about what you think your list reveals about your attitudes. These papers can be collected and saved, and at the end of the project, students can repeat the activity and compare the results.

At an even deeper level, Mezirow (1990) and others reserve the term *critical reflection* to refer to the examination of the often invisible premises or presuppositions that underlie our thinking. In service learning, such assumptions can help shape or determine how staff and students perceive a potential service site, frame a problem, suggest solutions and evaluate the results. For instance, many schools initially designed projects for their students to provide help and friendship for their classmates with disabilities. After reflecting on the real purpose underneath such efforts—such as the development of interpersonal skills, self-esteem, and increased inclusion for those with disabilities, many teachers have also enlisted special needs students themselves to be in the role of helping others. In one such project, youth with Down's syndrome have become caregivers to senior citizens in a convalescent home.

Reflection During Service

Although preparation is critical, it is important to remember that what really ignites student curiosity is the service work itself. The most teachable moments will arise *during* and *after* students involvement in real-life tasks. As the 1950's Pittsburgh Pirates baseball player Vernon Law put it, "*Experience is a hard teacher because she gives the test first, the lesson after.*" The practicum will offer a structured opportunity for students to assess the complex issues arising from their fieldwork. Students will report about these experiences (the "what" stage) and analyze them (the "so what" stage) using such thinking skills as recalling, observing, inferring, classifying and problem-solving.

During the service project, a reflective practicum serves multiple purposes, including offering students the opportunity to share observations and highlights, ask questions, solve problems, solicit feedback, gather encouragement, and learn from classmates. For the teacher, it is an opportunity to monitor, appreciate, and supervise student work.

Reflection After Service

As Conrad and Hedin (1987) point out, experience is not the same thing as knowledge. Students can store experiences in "episodic memory" (Tulving, 1983), where they can report but may not yet understand a sequence of events. In the aftermath of a project, students therefore need

to formally reflect in order to evaluate the project, assess their own development, look for generalizations to guide future decision-making, and find new applications (the "now what" stage) for what they have learned. Students ask important questions:

What difference have we really made?

What have I learned about myself, about those I served, and about academic skills and content?

Where might I apply this new knowledge elsewhere in my life?

How has my model of the world changed and what does that mean for my life?

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The answer to these questions will increase the likelihood that students will develop self-knowledge and knowledge about the world which will transfer to new situations.

Such discussions not only make educational sense in service-learning; they are also an ethical requirement. If teachers are going to place students in service settings that are morally complex and challenging, they have a responsibility to provide adequate opportunities for their pupils to discuss, make sense of and resolve these experiences. Examples of specific strategies to help students achieve a final synthesis or closure to their learning follow in the next section.

Classroom Strategies for Reflection

In Chinese the verb *xie* is used interchangeably to describe either the act of creating a painting or a work of calligraphy. For us, this points to a wider truth. When students have something to reflect on and express, they can "write" through a journal, a poem, a drawing, a cartoon, a slide show, a short story, a speech, a dance, a song, or even a mime. These different forms of "writing," of constructing and representing meaning, are what Elliott Eisner (1991) calls *multiple forms of literacy*.

The concept of multiple forms of literacy has major implications for *how* students reflect in service learning practicums. The person who is less comfortable in small group discussion may make a wonderful video documenting his community garden project for the food bank. The person

who can't quite find the right word in her journal may draw a series of political cartoons that forcefully capture her experiences in a homeless shelter. Such an approach encourages an atmosphere of creativity, comfort, and excellence among students because it affirms their particular strengths and varied intelligences (Gardner, 1983). Moreover, the instructional power of all forms of representation is that they make thinking visible. All students find it possible both to share with others and to edit and refine their thinking.

10 In this section, we describe some of the multiple forms of literacies that students might use to reflect and represent knowledge. These strategies are not meant to be alternatives to one another. Some of the best reflective projects may include two or three different forms, such as art projects and writing, or reading and group discussion. Moreover, as Harry Silcox (1993) points out, the form of reflection should be carefully chosen because it helps dictate the type of thinking and outcomes which will occur.

Writing to Reflect

When students write, they often simply "give evidence" that they can recall what the teacher taught. In contrast, service learning uses writing as a tool to produce, not reproduce, knowledge. Students fill what are variously called learning logs, reflection logs, or thinking logs with the constructive interplay between the core classroom content and their own personal reflections.

Students can be taught to be more versatile in the number of ways that they process and record their thinking in such a notebook. Teacher "prompts" can encourage different types of critical thinking and different forms of expression, such as the following:

- Write a letter to yourself before your service work begins. What do you predict that this experience will be like for you? (Forecasting).
- Draw a web showing what you already know about the topic of endangered species, and what you would like to know. (Recalling and organizing).
- Create a flowchart to represent the steps involved in implementing your service project. (Sequencing).

- Write about a critical incident that happened at your site where you didn't know what to do. How did you handle it? What would you change if this happened again? (Problem-solving).
- Draw a diagram showing your before and after image of the people with whom you have been working. (Compare and contrast).
- If you were given the authority, how would you change how your service placement uses volunteers? (Evaluation).
- Where and how might you use the knowledge that you have learned from your service project? (Application).
- What has your service work taught you about the type of career that you would like to have or not have? (Application).
- Draw a cartoon that teaches something important about the people whom you are serving. (Synthesis and creative thinking).

Besides learning logs, service-learning projects are filled with opportunities for authentic writing products that encourage reflection and fit perfectly with a meaning-centered language arts curriculum, as the following examples illustrate:

- One kindergarten class culminated their year by creating a Big Book for each of the local nursery schools which told "the real story" about kindergarten.
- An intergenerational choir of senior citizens and fifth graders became pen pals for several months before rehearsing together.
- Middle school students volunteering in a children's science museum created their own exhibit on composting and wrote the text for the various displays.
- High school peer helpers welcoming immigrant students wrote their own "Student Handbook" and translated it into several languages.

In each of these cases, the "product" is not only a vehicle for reflection and closure; it is also a highly engaging writing task that fulfills an essential purpose by addressing and affecting a real audience.

Reading and Reflecting on the Larger Contexts of Service

In discussing the education of medical doctors, Ilene Harris (1993, p. 33) poses the question, "While knowing-in-action and reflection-in-action are essential in professional practice, what informs reflection?" Students who are highly enthusiastic about working in a homeless shelter or food bank, for instance, might *appear* to be receiving a real-life education in social studies and civic education. If what informs reflection is only the service experience itself, however, then students will not have the background to "see" or understand how to address the myriad social, political and economic forces which converge in that experience. What students observe at a service site rarely conveys the whole story.

When students do research the wider context of their work, they develop an informed perspective that improves both the learning and the service. The students volunteering in a shelter, for example, could study interdisciplinary content in economics, political science, sociology, and psychology relevant to their work. Such background research and readings might include the social and political origins of the problem, how previous and current public policy has succeeded or failed to address the issue, and how the concepts of citizenship and social justice apply to the situation. All of this reinforces Resnick and Klopfer's (1989, p. 6) conclusion: "There is no choice to be made between a content emphasis and a thinking-skill emphasis. No depth in either is possible without the other."

One California middle school blended thinking and content through combining direct service in a shelter with a year-long original research project into specific issues about the local homeless population. The research culminated in a set of recommendations presented in a public forum to a U.S. Congressman, the head of a Stanford University Study research team, and a principal from a public school serving homeless children. These early adolescents had learned and practiced the requisite skills for influencing social policy, such as how to analyze a community problem, how to network with other organizations, and how to heighten public awareness. There was a direct and vigorous connection between the character of the students' education and their present and future role as democratic citizens.

If students in a language arts or interdisciplinary class volunteered in the same setting, they could extend their reflection through readings such as *Oliver Twist*, *Grapes of Wrath*, and *The*

Autobiography of Malcolm X. Some of the class would likely be having volunteer experiences that could have stepped off the pages of Dickens, Steinbeck, or Malcolm X. These books have the potential to deepen the insights of students by their portrayal of the personal history, motives, complexity, strengths, frailties and larger historical conditions of their characters' lives. In English classes, discussion would focus on the literary merit of the books and on the understanding which the authors shed on poverty both for the students' own community and as an ongoing historical issue.

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In the tradition of outdoor education, readings in service-learning can also take the role of inspirational quotes about concepts such as courage, persistence, integrity, leadership, or success. We may read a "quote of the day" and ask students, *"How do these apply to our immediate service work, and in our larger lives?"*

Class Discussion

Group discussion offers one powerful attribute missing in solitary reflective techniques—the opportunity to learn directly from one's peers. Cognition becomes a social process. We become excited when we hear other people give language to what we intuitively know, and we are challenged when their views differ markedly from our own. The frequent result is that the sum total of the "group wisdom" goes far beyond what our own thinking could produce.

Such dialogue, however, rarely happens automatically. It is challenging for students to think out loud and push the boundaries of their thinking in front of a group of their peers. Teachers need to give a high priority to building a shared sense of community, helping students learn group skills, and using a variety of approaches. One 3rd grade teacher who had difficulty persuading her students to discuss their work had great success when she set up a "talk show," where one student was the master of ceremonies and three students were interviewed.

If students are to expand their ability to perceive and understand the world through group dialogue, the practicum participants need to be as diverse as possible. Students will learn that their peers from different neighborhoods, social groups, and cultural backgrounds often differ in how they define problems, pay attention to certain issues, and interpret the same set of facts. Beyond

this, students may also discover that these diverse points of view can be a resource when trying to understand and solve a community problem.

The Arts

Teachers might offer students a chance to document a service experience through less conventional modes such as poetry, music, cartooning, posters, videos, dance, sculpture or photography. Dan Conrad (personal communication, July, 1993), who teaches a high school service elective class in Hopkins, Minnesota, tells the story of three boys who made light of the practicum meetings and resisted all urging to write about their project. As a culmination to their volunteering at a nursing home, however, they prepared a video that captured a sensitivity and depth of understanding that they might never have been able to convey and affirm in any other form of representation.

The arts can be used to reflect throughout the service-learning cycle. To help select a service project, we have asked middle school students to draw two pictures: one of what they like and another of what they don't like about their neighborhoods. We then place the two sets of pictures on two separate walls, ask for student observations, and discuss the neighborhood's strengths and needs that are evident in the drawings. In preparing for another service project, this time with senior citizens, we have had students draw and share important memories from their own childhood, and then talk about the role that reminiscing and oral histories play in all of our lives.

Portfolios

Portfolios provide a structure for collecting in one place a set of records documenting the progress of a student project. Students can select a compilation of artifacts that are produced throughout the activity, such as initial plans, revisions, letters written and received, charts, artwork, journal entries, newspaper clippings, and evaluation forms. This record can be used as an ongoing vehicle for student reflection and self-assessment, for evidence of student achievement, and for sharing the service project with interested audiences. One of those audiences could be parents, as more and more school districts adopt the practice of student-led parent conferences.

Self Assessment and Peer Assessment

A central goal of education is for students to become self-directed and lifelong learners. For this to happen, they must learn how to reflect, evaluate and make judgments about their own work. One reflective technique is to have pairs of students to meet regularly to share and assess their own progress. If students have developed a clear plan and a rubric of standards, they can use these criteria to explore their successes and determine what they need to do differently. The role of the peer assessor is to listen and ask clarifying questions, not to give grades or judgments.

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Building a Reflective Future

Havel's quotation at the start of this chapter is striking because he includes "the human power to reflect" as one of four cornerstones for the world's salvation. Adult educators in our workshops nearly always agree that reflection plays a vital role in their lives, although they have to squeeze it into their days while driving a car, jogging, cleaning the house, gardening, or walking the dog. It is an ongoing struggle for most of us not only to live life, but to monitor whether we are going where we want, using the best means to get there, and discovering what it all means. Clearly this is in our individual and collective self-interest. Gaining perspective and understanding are daily needs.

Young people face an environment both in and out of school that rarely supports reflection. As Michael Oakshott writes in *The Voice of Liberal Learning* (Fuller, 1989), our world is full of "*seductive trivialities which invoke neither reflection nor choice but instant participation.*" We therefore need to create in our homes, schools, and community organizations the opportunity for youth to develop those attitudes and habits that produce depth, meaning, and lifelong learning. In a culture that fosters impulsiveness and offers constant entertainment, the challenge for parents and teachers is to design alternative settings that value and reward qualities like self-initiative, sustained curiosity, thoroughness, self-discipline, empathy, intellectual integrity, and ethical reasoning.

In classrooms that combine authentic tasks and reflective thinking, such habits can be reinforced, and students will have the time to extend and refine comprehension. They can

practice the skills and dispositions—*the process*— of reflection to make sense of and thoughtfully guide their educational work. After years of adding to our curriculum in schools, we are coming to realize that we may not be teaching anything if students are not given the opportunity to acquire deep understanding and the ability to use what we teach. Through the effective use of service learning programs, students can regain a greater educational locus of control to learn content, skills and, in the words of Albert Einstein, "the courage to take your own thoughts seriously."

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Bibliography

Conrad, D. and D. Hedin. (1987). *Youth Service: A Guidebook for Developing and Operating Effective Programs*. Washington, D.C.: Independent Sector.

D'Arcy, P. (1989). *Making Sense, Shaping Meaning*. Heinemann: Portsmouth, N.H.

Eisner, E. W.. (Spring 1991). "Rethinking Literacy." *Educational Horizons*. Vol. 69, No. 3, pp 120-128.

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Harper and Row.

Harris, I. B. (1993). "New Expectations for Professional Skills: Reflective Practice and Self-Correction. " In *Education for the Professions*, edited by L. Cunny and J. Wemjin. San Francisco: Jossey Bass.

Joyce, B.. M. Weil with B. Showers. (1992). *Models of Teaching*. Fourth Edition. Needham Heights, MA: Allyn and Bacon.

Kolb, D. A. (1984). *Experiential Learning*. Englewood Cliffs, N.J.: Prentice-Hall.

Mezirow, J. and Associates. (1990). *Fostering Critical Reflection in Adulthood*. San Francisco: Jossey-Bass.

Fuller, Timothy. (1989). *The Voice of Liberal Learning: Michael Oakeshott on Education*. New Haven, CT.: Yale University Press.

Pratt, F. (n.d.). *Teaching About Aging*. ERIC Clearinghouse for Social Studies/Social Science Education and Social Science Education Consortium, Inc. Boulder, Colorado, (ED 135682).

Resnick, Lauren B. and Klopfer, Leopold E. (1989) "Toward the Thinking Curriculum: An Overview." in *In Toward the Thinking Curriculum*. edited by L. B. Resnick and L. E. Klopfer. Alexandria, VA: Association for Supervision and Curriculum Development. pp. 1-18.

Schon, D. A. (1987). *Educating the Reflective Practitioner: Toward a new Design for Teaching and Learning in the Professions*. San Francisco: Jossey-Bass.

Schon, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. Basic Books, Inc.

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Silcox, H. (1993). *A How to Guide to Reflection: Adding Cognitive Learning to Community Service Programs*. Philadelphia, PA: Brighton Press.

Tulving, E. (1983). *Elements of Episodic Memory*. Oxford: Oxford University Press.