CONNECTING COGNITION AND ACTION:
EVALUATION OF STUDENT PERFORMANCE
IN SERVICE LEARNING COURSES

Marie Troppe, editor
"Learning is the process whereby knowledge is created through the transformation of experience."
—David Kolb

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FOREWORD

What is our role as educators?

Our role as educators is to teach students to become resourceful adults. This means giving them knowledge and skills that will enable them to solve problems, to negotiate the world, to live fully. It means teaching students how to seek knowledge and develop skills, to be actors, not in the sense of pretending or engaging in drama only when others are watching, but metaphorically, to be able to walk onto an empty stage or a stage with other actors and to create something meaningful. Our students want and need to attain and exercise a sense of efficacy and agency in this complex, messy world in which we live. We need to help them struggle to build and maintain community in this democratic society and in a world of global communication and interconnectedness.

How is our role as educators changing?

Education in our schools today grew from a traditional model in which the teacher was the expert and the students were supposed to absorb, like sponges, the knowledge of the teacher. When exam time came, the students recapitulated the knowledge that the teacher had deposited in them. Paulo Freire has outlined this process in what he calls “the banking model of education” (1970). In a smaller, simpler, more predictable world, in which people rarely moved away from their own hometown or state, this model was very efficient.

In today’s world, however, when so much happens so fast and communication is almost instantaneous, the old model has broken down. No single expert can keep up with all the advances in a field. Dissemination of knowledge occurs more horizontally than vertically. Ordinary citizens have a greater opportunity to gain expertise. We have more information available to us and less certainty about how to use it. Chaos theorists maintain that we cannot easily understand the relationships among a myriad of factors influencing events in our world. We can no longer easily outline linear, cause and effect relationships. So now the role of the teacher must change. The teacher spends less time imparting content knowledge and more time teaching students how to navigate the information sources available to them. The teacher helps students figure out when to apply which sorts of knowledge.
How does service learning help us fulfill our role as educators?

As educators are asked to function more as facilitators than experts, service learning will likely become a more widely used pedagogy. Service learning uniquely places students in a position to apprehend the complexity of the world around them, to explore issues imbedded in their natural contexts. Rather than simply gaining feedback from one expert teacher, students get feedback from many different groups involved with an issue. Furthermore, the consequences of students' intellectual explorations are real, not artificial.

Why is evaluation of student performance in service learning courses so critical and yet so difficult?

Faculty will be convinced of the learning that takes place for students in service learning courses only if adequate evaluation takes place. The extent to which service learning is shown to enhance traditional classroom learning is the extent to which the legitimacy of service learning will increase. Service learning is qualitatively different from other kinds of teaching. As such, it presents unique challenges and benefits. Different kinds of knowing require different kinds of evaluation.

In service learning, the teacher plays the role of the facilitator more than the role of the expert. The student takes on the role of initiator rather than the role of imitator. In the traditional classroom, the professor evaluates the knowledge gained by the student. In the service learning classroom, the professor evaluates how students integrate gains in two distinct areas: knowledge and experience. Evaluation in service learning courses is difficult because it breaks with earlier models of evaluation. (See the chart on page three.)

Perhaps service learning best exemplifies the “scholarship of integration,” one of Boyer’s four kinds of scholarship. “In proposing the scholarship of integration, we underscore the need for scholars who give meaning to isolated facts, putting them in perspective. By integration, we mean making connections across the disciplines, placing the specialties in larger context, . . . interpretation, fitting one’s own research — or the research of others — into larger intellectual patterns” (Boyer, 1990). Since traditional classroom settings tend to evaluate the scholarship of discovery and that of application rather than the scholarship of integration, the effects of service learning cannot be captured fully with traditional methods of evaluation alone. Many faculty assume that service learning only exemplifies the scholarship of application; beyond that obvious observation, they miss the possibilities service learning holds for the scholarship of integration.

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<th>Traditional Classroom</th>
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<td>Imitator</td>
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Higher education in the United States started with public purposes foremost in mind, but gradually shifted away from them. Many American colleges and universities began with missions of service and civic responsibility. Today, an individual is most likely to attend college for personal economic gain, to increase his or her chances of securing a good job and a fulfilling career. In this conception, education is seen as merely transmitting knowledge for individual purposes. Service learning, in contrast, offers a pedagogy that advances knowledge mainly for public purposes, such as solving societal problems and building communities.

The Purpose of this Booklet

This booklet has two parts. Troppe’s piece outlines some common questions faculty often ask when beginning to evaluate student performance in service learning courses. These cases illustrate methods for evaluating service learning. The principles can be applied to other cases. In the second article, Bradley uses a model of the development of reflective judgment to assess faculty members in assessing the cognitive gains experienced by service learning students. The two articles serve different purposes, but work together to aid faculty and community service coordinators as they integrate service into the curriculum.
BIBLIOGRAPHY


Common Cases: Philosophy of Evaluation in Service Learning Courses
Marie Troppe

The following six cases provide examples of classroom situations or questions that arise when discussing the evaluation of students’ performance in service learning courses. They are not meant to provide prescriptive answers but should help suggest ways for faculty to monitor students’ academic progress in service learning courses. Our desire to ensure academic integrity requires that we use this innovative, useful pedagogy in conjunction with rigorous evaluation.
CASE ONE

In a course in which service is an option, some students participated in service; others opted to do a research project. The faculty member said he graded the students who did service by easier standards than the other students.

It was clear to the faculty member that he couldn’t grade students on their service. After all, that would involve decisions about the following ludicrous questions: Do we award an “A” to the students who serve the most food to the homeless, who impact most favorably the school attendance rate of the children they tutor, or who spend the most hours at a residence for the elderly? No. Nor do we grade students based on the number of textbook pages they read, hours they spend in the library, or verb conjugations they memorize. The more they do these things, though, the more likely they will master the concepts being taught. And, if they can demonstrate their grasp of these concepts, students will earn a high grade. But we don’t grade students on their study habits, so why should we grade them on their service?

The faculty member in this case knew not to grade students on their service. As expected, he did grade the other students on their research papers. But the research papers weren’t evaluated as examples of creative writing, they were evaluated as demonstrations of the students’ ability to understand and synthesize the concepts being taught. Likewise, the faculty member needs to elicit from those students doing service some expression of how they are connecting the service experience to the course content.

A definite step is needed to mediate between the service activity and how the student connects it to the course content. A journal or reflective paper is a product which shows how a student connects his/her service with the classroom theory in the same way that a research paper documents a reader’s exploration of a particular problem or question in the context of course themes.

- **AN ASSIGNMENT OR ACTIVITY, SUCH AS A JOURNAL, IS NEEDED TO PROVIDE EVIDENCE OF HOW THE STUDENT CONNECTS THE SERVICE TO THE COURSE CONTENT.**

CASE TWO

A faculty member considers a student’s class participation when assigning a final grade. She hesitates to reward a student for his frequent participation in class because it tends toward irrelevant “storytelling” of his experiences in the community rather than an appreciation for the academic concepts that those experiences could illuminate.

Faculty members worry about the “subjectivity” of evaluating students in service learning courses. We sometimes forget, though, that we also use some subjective measures in traditional courses. Although class participation is measured subjectively, we can still legitimately decide to count it toward a grade. A professor who factors class participation into a grade is not handing gregarious students an advantage over shy students. Students who talk more will not fare better in participation if their comments are relatively shallow. Students doing service should have more to contribute to class discussion than those not involved in a service experience. We don’t assume that they may have absorbed more by having had a service experience unless they show it.

In this case, the faculty member recognized the danger of rewarding a student for frequent verbal expression rather than examining the quality of his contributions. She didn’t favor his “storytelling” over the kind of analysis that she was really seeking. At the same time, she owes the students some guidance on two fronts: 1) in setting expectations about the kind of reflection they are expected to develop; and 2) in asking questions and giving feedback that will help them move from description to true analysis.

- **BY HELPING STUDENTS TO DISTINGUISH BETWEEN DESCRIPTION AND ANALYSIS, BETWEEN EMOTIONAL REACTIONS AND COGNITIVE OBSERVATIONS, FACULTY HELP THEM TO TRANSFORM SERVICE EXPERIENCES INTO LEARNING EXPERIENCES.**

- **EVALUATION OF SERVICE LEARNING OCCASIONALLY MAKES USE OF SUBJECTIVE EVALUATION IN THE SAME WAY THAT TRADITIONAL COURSES SOMETIMES MAKE USE OF SUBJECTIVE EVALUATION.**
CASE THREE

A course syllabus states that for every three hours of service, a student earns more points toward the final grade.

Granting a higher grade (or the potential for a higher grade) for service is like granting credit for hours of service performed. As in CASE ONE, we grade students on how well they articulate the issues raised in the text, not on how many paragraphs they read. More isn’t always better. We attempt to send this consistent message to students: quality is more important than quantity. And yet, there may be a desired minimum number of hours for student involvement in service. A few hours of service may have little impact at all. Rather, a significant period of service is needed to impact students and the community.

- **There is not a one-to-one correspondence between hours served and knowledge gained or credit earned.**

- **Nevertheless, a certain minimum of service hours may be needed to provide an experience of significant depth.**

CASE FOUR

Campus service-learning centers that offer a "fourth credit option" award an additional credit to students for integrating service within one of their courses. For example, if a student enrolls in a three-credit course and engages in service related to that course, he or she earns four credits.

This case resembles the arrangement in which a laboratory section is connected to a lecture-format science course. The course consists of a lecture meeting and a lab meeting each week (or several times a week) but one cannot be taken without the other. The lab is not an add-on component but is meant to be integral to the lecture part of the course. Students often have two exams, a written one in the lecture section and a “practical” one in the lab section. Students do not earn credit for simply looking through the microscope or completing certain experiments but for learning to identify certain types of cells under the microscope and for being able to write intelligent conclusions in lab reports. Service learning programs of the fourth credit option variety are most effective when they require a component that explicitly links the service to the course in the same way that a science course is linked to its laboratory section.

- **Effective fourth credit option programs require a component that explicitly links the service to the course, for example, a learning contract and/or a journal assignment.**
CASE FIVE

In a course in which service is optional, all students took three exams. The students who chose to do service were allowed to drop their lowest exam grade.

Service in this course is “optional” but students doing service get a break that others do not get. Students who do service but whose test performance might be limited can earn the same grade as students who tested well. The faculty member in this case essentially gave “extra credit” for hours of service. Awarding extra credit for hours of service is essentially the same as awarding initial credit for hours of service. Preferably, the extra credit work should be a paper or some other demonstration of the learning that the service experience facilitated.

The extra credit work should be graded or at least judged for quality in some way. It should not just be a completion requirement (i.e., a specified number of hours completed). Trading an extra credit grade (i.e., on a product, some written or oral material that reaches a certain standard of quality) for the lowest exam grade is preferable to trading extra work (i.e., hours of service or worse, yet, some form of busywork) for the lowest exam grade. An alternative such as an oral presentation could award “extra credit” for the connection of service to the course (rather than for the service itself) and still benefit students whose learning styles favor active demonstration of learning over written tests.

- **To preserve the academic integrity of service learning, credit is not awarded for hours of service but rather for demonstrated learning based on the service.**

- **When awarding extra credit in conjunction with service, proceed with the same caution: extra hours of service should not necessarily yield extra credit.**

CASE SIX

Students were required to write weekly journal entries for a service learning course. The professor collected them once at the end of the semester and gave limited feedback on them to the students.

Give regular feedback on journals, starting early in the semester. Write responses and questions, not just “good” or “needs work.” Journals tend not to be summative demonstrations of what a student has learned as much as formative demonstrations of how and if a student is learning. They are an ideal opportunity for faculty to guide students through muddled questions and help turn their thoughts into striking analyses. If it’s too time-consuming to give extended feedback on a regular basis, consider asking students to make use of peer feedback. Once students learn what kinds of reflection are useful, they will be able to deepen each other’s thinking by their questions and criticism.

- **Giving early and regular extended feedback on students’ journal entries is a critical part of teaching students how to develop their reflection skills.**

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A Model for Evaluating Student Learning in Academically Based Service
Dr. James Bradley

Why is evaluation necessary?
Instructors who use academically based service (service learning) have found it difficult to evaluate student performance. There is no clearly defined academic content which can be easily tested for mastery as in a mathematics course. There are no major texts about which a student can reflect and write a paper as in a literature course. There is no widespread agreement on the appropriate skills students should be mastering as in an applied music course. Furthermore much of what instructors hope that students learn — the development of attitudes and values — is typically regarded as too subjective for effective measurement.

Nevertheless, evaluation is essential for at least two reasons:
• Without it, the student does not derive the benefit of the mature reflections of a faculty mentor. Students may (or may not) discuss their experiences with peers. Evaluation, however, provides a structured, systematic way for students to get helpful feedback on their activities; such feedback can be a major contributor to learning.¹
• Evaluation provides for student accountability. The sponsoring institution has an ethical responsibility to the client with whom the student works and perhaps an agency as well. Evaluation provides a means by which the institution can at least attempt to fulfill this responsibility.

Thus, difficult or not, we have to develop effective means of evaluating students. This paper is a presentation of one possible solution to this problem.

What makes for effective evaluation?
We would like to suggest four components of an effective evaluation system:
• Well-chosen, clearly articulated goals and objectives on the part of the instructor
• A means for students to communicate their experiences to the instructor
• A measurement technique
• Opportunity for the student to improve through feedback
Goals and objectives

We have adopted the distinction between goals and objectives often made in business — that goals are broad, general, over-arching statements of what one hopes to accomplish and objectives are specific statements about what one hopes to accomplish in limited domains. The selection of goals and objectives and their careful expression can be a difficult exercise for the instructor! Service experiences can vary widely and can involve aspects of which the instructor is totally unaware. The formation of goals is not intended to stifle this creative aspect of service, nor to force a rigid conformity. Rather this formation is intended to make it a purposeful activity designed to enhance, enrich, and support the achievement of the academic goals of a course. Without explicit academically oriented goals, students typically have "meaningful experiences," but are unlikely to relate these experiences clearly to the academic content of the course. Also, as we shall see below, reflective thinking is very much a goal directed activity. Thus well-formed goals can greatly encourage reflective thinking on the part of students. While the process of goal selection is unique to each situation and requires too much creativity to be routinized, some principles of effective goal selection can be identified:

- The selection of goals goes hand-in-hand with the selection of the service activities themselves. If the goals are selected solely on basis of the academic objectives of the course, they may be unsuited to the particular service experiences available; on the other hand, if the experiences are selected and/or structured without reference to the academic goals of the course, students may find little relationship between academic content and service. Thus creativity is required of the instructor to select and structure service experiences and to select goals for the experiences which comport well with the academic goals for the course and which are achievable within the particular service setting available.

- The objectives need to be quite explicit in showing students how to relate service experiences and academic course content. Without such direction, many students will not make the connection at all, some will see the connection vaguely, and only a few will see the connection clearly.

- The goals and objectives need to be expressed simply and clearly. Some writers advocate that all objectives should be measurable. Such a requirement may or may not be helpful. Sometimes writing an objective so that it is quantified can add clarity. For instance, the objective “Get to know people who are underemployed or unemployed.” can be clarified by writing it as “Spend at least one hour with three distinct individuals who are underemployed or unemployed.” However, some valuable objectives do not lend themselves well to quantification. Requiring measurability forces people to either neglect such goals or to replace them with measurable surrogates which don’t state what is actually intended. Thus it seems preferable to encourage instructors to state their objectives clearly and to use quantification whenever it helps clarity.

- Goals and objectives need to be written so that the instructor as well as the student can tell when they have been achieved.

- If an agency is involved in the service experience it should at least be informed of the goals and objectives; if the agency wishes to be, it should be involved in goal and objective selection as well.

- Goals and objectives need to be selected with consideration of the well-being of the service client as well as the student.

An example of a well-formed collection of goals for an economics course is presented in Table 1. Note under item II.B. how explicit the instructor has been in showing students how to relate academic content to their service experiences.
TABLE 1: Service-Learning Project for Economics 335, Labor Economics

I. GOAL:
To increase students' understanding of and concern for:
• outcomes of labor markets which are harmful to individuals and families
• ways to alleviate these harmful outcomes
Some examples of such harmful outcomes are long-term unemployment, underemployment, and discrimination

II. OBJECTIVES:
A. Knowledge Objectives:
1. To learn about an organization which is working to help those who are having difficulty in the labor market: its goals and objectives, its structure, its activities, its sources of support, its impacts
2. To learn about at least seven cases of unemployment or underemployment: education/employment history of the person, attempts to find employment, effects on family, present situation, what is being done to help them.

B. Skill Objectives:
1. Improve ability to apply economic theories of labor markets (e.g., neoclassical models and institutional models of wage determination, discrimination, and unemployment) to actual situations, using them to help understand the situation
2. Improve ability to use actual situations and experiences to evaluate the adequacy of economic theories
3. Improve expository writing skills

C. Attitude/Value/Commitment Objectives:
1. Form or deepen a concern for those for whom the labor market does not give good outcomes
2. Form or deepen a commitment to use available opportunities to help these for whom the labor market does not give good outcomes

D. Service Objective:
1. Provide assistance to an organization which is helping people who are having difficulty in the labor market.

III. SERVICE ACTIVITIES
Spend 15-20 hours over the course of 8-10 weeks working for an organization helping the unemployed or underemployed to find jobs which fit their needs. The work could vary according to the organization’s needs. For example, it could involve doing a literature search on some topic of importance to the organization, office work (as long as that means to learn about the organization and is provided), or providing transportation to job interviews. In some cases such service may not be a direct source of much learning but would be a form of “payment” for the time the organization spent helping the student learn about it and its clients. Each student should have the opportunity to learn about the organization and its activities and to learn about at least three people the organization is working with. It’s best if the people could be met in person, but if this is impossible, confidential briefings are acceptable.

Please note: Entire text of the syllabus is published in another Campus Compact publication, Redesigning Curricula, pp 42-48.

Communicating What Is Learned

Some significant disadvantages which render it unsuitable for most academically based service:

- The observation is filtered through the instructor's frame of reference and is therefore less than the student perceives.
- The sample of observations is too small to be reliable.
- Observations require more instructor time than is usually available.
- The student learning is not what happens when the student is absent.

Note that we are not directly assessing students' performance, we are requiring them to synthesize and organize the information into a concrete, take-away product. This is widely used in some of the student's work that is sometimes employed in observation of the student in the service setting. This is widely used in some of the student's work that is sometimes employed in observation of the student in the service setting. This is widely used in some of the student's work that is sometimes employed in observation of the student in the service setting.
of their experience are unique and which are general, and to assimilate their learning. However, group discussion does not lend itself well to evaluation as the instructor’s attention is too fully given to filling the mentor role to allow for evaluation and there is little opportunity to stop and assess a contribution as it is being made. Group discussion, therefore, won’t be pursued further here.

Perhaps the most widely used method for evaluating service experiences is the evaluation of student journals. Journals provide the opportunity for students to reflect on their experiences while they are still fresh in their mind and they provide for somewhat more freedom of form than does a formal paper. Theory-to-practice papers also provide opportunities for reflection. While not as immediate, they typically expect a more thorough and careful analysis. Both are valuable, serving somewhat different purposes. However, some recent research suggests that the quality of reflection occurring in theory-to-practice papers depends a great deal on the choice of question on which students are asked to write. Thus such questions need to be constructed quite carefully.

Reflection and Measurement

Much research has been done in recent years on the reflection process. We will draw heavily on that research here in developing a technique for evaluating student journals and theory-to-practice papers. Writing about teacher education, Dorene Doerre Ross provides the following definition of reflection:

At a general level, reflection is defined as a way of thinking about educational matters that involves the ability to make rational choices and to assume responsibility for those choices . . . The elements of the reflective process include:

- Recognizing an educational dilemma
- Responding to a dilemma by recognizing both similarities to other situations and the unique qualities of the particular situation
- Framing and reframing the dilemma
- Experimenting with the dilemma to discover the consequences and implications of various solutions

- Examining the intended and unintended consequences of an implemented solution and evaluating the solution by determining whether the consequences are desirable or not

It seems that the process of reflection Ross describes for student teaching is generalizable to any service situation. Ross does not explicitly define “dilemma;” however, her context suggests she is thinking of a student teacher who finds himself or herself in a somewhat unfamiliar situation in which appropriate action must be selected. Thus the student must recognize his or her uncertainty, compare and contrast the situation to other more familiar situations, develop a framework within which to understand the situation, and consider alternatives and their possible consequences. This is no different from what a student in a service learning situation must do. In order to provide an effective technique of evaluation, we reformulate Ross’ outline of the reflective process using a simple, three-step rubric:

- observation (recognizing a dilemma)
- analysis (responding, framing, reframing)
- synthesis (experimentation and strategy selection)

Note that Ross’ last step (examining and evaluating) cycles back to the first two steps of our three step process. The same rubric can then be applied to subsequent experiences in the service setting with the student’s actions as part of the material subsequently to be reflected upon.

Those who have studied reflection intensively are eager to point out that reflection is more than a learning technique; rather it is a life-long habit of thought characteristic of highly skilled professionals who work in complex situations. If they are correct, the development of reflective skills is of great importance. Thus the academically based service experiences can make a valuable contribution to a student’s professional life by helping students develop this skill. However, we need to acknowledge from the beginning that we can only make a small contribution to this process. Furthermore our evaluations are poor attempts to measure such a rich aspect of the students’ thinking. However, some feedback is better than none. It seems advisable then that before students are sent out to their service experiences and before they are assigned the writing of journals, they be given the above rubric, Ross’ definition of reflection, and some opportunity
to discuss them. As for the actual evaluation of the journals or papers, we are suggesting a three-factor measure using the three steps of the rubric as the factors. The factors should not be consolidated into a single grade as the measurement is not quantitative — the numbers used are ranks, not quantities.

Evaluation of each step needs to be done with the service goals in mind. That is, the goals provide a frame within which both the student and the instructor can reflect on the service experience. Also students should think about the goals in writing their journals or papers. Student journals are extraordinarily unique! Reading a journal while looking for evidence of how the student has reflected on his or her efforts to achieve the goals can give a great deal of insight into the student’s thinking.

We recommend that the three factors be evaluated using a simple three level scoring system, followed by a verbal explanation of why the particular level was chosen. Table 2 presents the levels.

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<tr>
<th>Table 2</th>
<th>Criteria for Assessing Levels of Reflection</th>
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<tr>
<td><strong>Level One</strong></td>
<td>1. Gives examples of observed behaviors or characteristics of the client or setting, but provides no insight into reasons behind the observation; observations tend to be one dimensional and conventional or unassimilated repetitions of what has been heard in class or from peers 2. Tends to focus on just one aspect of the situation 3. Uses unsupported personal beliefs as frequently as “hard” evidence 4. May acknowledge differences of perspective but does not discriminate effectively among them</td>
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<tr>
<td><strong>Level Two</strong></td>
<td>1. Observations are fairly thorough and nuanced although they tend not to be placed in a broader context 2. Provides a cogent critique from one perspective, but fails to see the broader system in which the aspect is embedded and other factors which may make change difficult 3. Uses both unsupported personal belief and evidence but is beginning to be able to differentiate between them 4. Perceives legitimate differences of viewpoint 5. Demonstrates a beginning ability to interpret evidence</td>
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<tr>
<td><strong>Level Three</strong></td>
<td>1. Views things from multiple perspectives; able to observe multiple aspects of the situation and place them in context 2. Perceives conflicting goals within and among the individuals involved in a situation and recognizes that the differences can be evaluated 3. Recognizes that actions must be situationally dependent and understands many of the factors which affect their choice 4. Makes appropriate judgments based on reasoning and evidence 5. Has a reasonable assessment of the importance of the decisions facing clients and of his or her responsibility as a part of the clients' lives.</td>
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</table>

Note that a single journal excerpt is unlikely to show all of the items listed as characterizing a particular level. Rather they serve as typical representatives of thinking at each level. Furthermore, while the levels seem clear and intuitively appealing, it is sometimes difficult to see which level best describes a student’s journal.
The theoretical foundation behind this scale is a model of the development of reflective judgment developed by Kitchener and King and adapted by Ross. Ross' adaptation is presented in Table 3. Note that we have collapsed her five stages into three levels in order to make the levels easily understandable by both the instructor and student. An instructor who wished to provide a more discriminating scale could use all five stages.

**Table 3 Stages in the Development of Reflective Judgment**

**The Individual:**

<table>
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<tr>
<th>Stage 1:</th>
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<tr>
<td>* Views the world as simple</td>
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<tr>
<td>* Believes knowledge to be absolute</td>
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<tr>
<td>* Views authorities as the source of all knowledge</td>
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<th>Stage 2:</th>
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<tr>
<td>* Acknowledges existence of differences of viewpoints</td>
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<tr>
<td>* Believes knowledge to be relative</td>
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<tr>
<td>* Sees varying positions about issues as equally right or wrong</td>
</tr>
<tr>
<td>* Uses unsupported personal belief as frequently as “hard” evidence in making decisions</td>
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<tr>
<td>* Views truth as “knowable” but not yet known</td>
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<table>
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<tr>
<th>Stage 3:</th>
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<tr>
<td>* Perceives legitimate differences of viewpoint</td>
</tr>
<tr>
<td>* Develops a beginning ability to interpret evidence</td>
</tr>
<tr>
<td>* Uses unsupported personal belief and evidence in making decisions but is beginning to be able to differentiate between them</td>
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<tr>
<td>* Believes that knowledge is uncertain in some areas</td>
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<th>Stage 4:</th>
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<tr>
<td>* Views knowledge as contextually based</td>
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<tr>
<td>* Develops views that an integrated perspective can be evaluated as more or less likely to be true</td>
</tr>
<tr>
<td>* Develops initial ability to integrate evidence into a coherent point of view</td>
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<th>Stage 5:</th>
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<tr>
<td>* Exhibits all stages listed in Stage 4</td>
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<tr>
<td>* Possesses ability to make objective judgments based on reasoning and evidence</td>
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<tr>
<td>* Is able to modify judgments based on new evidence if necessary</td>
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For example, consider the evaluation of a journal submitted in the economics course cited earlier. Suppose a student has submitted a journal after an initial service learning experience of providing transportation for Mr. Moore, an unemployed person, to a job interview. The journal retells Mr. Moore's story, shows some empathy, discusses his educational background, and suggests that Mr. Moore needs some education to improve his marketable skills. As noted earlier, the goals and objectives for the service learning experience serve as the framework within which the student acts and reflects and the instructor evaluates. Thus the instructor turns back to Table 1 and notes that the students recognizes the harmful outcome of the labor market for Mr. Moore and shows concern. Hence some encouragement for achieving this goal is in order. However, there is no mention of the sponsoring organization, only one client is discussed, there is no application of economic theory, no evaluation of theories, concern is developing but there is no evidence of commitment yet, but some assistance was provided to the organization. After making these observations, the instructor compares the journal to Table 2 and identifies reflective levels. A possible evaluation might be as follows:

Observation -1- “You’re off to a good start. You told Mr. Moore’s story well and you have some genuine empathy for him. You need to look more closely at the organization and meet a couple more clients.”

Analysis -1- “You are beginning to analyze the causes of Mr. Moore’s chronic unemployment. What are some other factors besides education? How do the theories we have discussed in class help us understand his situation?”

Synthesis -1- “Your suggestion about the possibility of Mr. Moore improving his marketable skills is a reasonable one. How feasible is that for him? What obstacles might there be? What steps could he take? If you drive him to an interview again, are there practical ways you could be of help to him?”

**Client feedback**

Client feedback could be from the person or persons directly helped or from the agency. Ideally it would involve both, but that may not always be possible. It needs to be simple and brief so as not to consume much of the client’s or agency’s time. For
instance, Mr. Moore who was provided transportation in the previous example might be asked to complete a form which consists of just three questions (or even just the first two):

In what ways was the student helpful?
Were there ways the student was not helpful?
How could the student have been even more helpful?

These evaluations need to be shared with students as soon as possible and students should be expected to respond to them, either in some form of discussion or in their journal. The same questions could be used by an agency staff member at one or more points in the student’s service.

*How can students be given opportunity to improve?*

The evaluation system provides for a cycle of improvement. That is, as students observe, analyze, and synthesize, they can observe the effect of their actions and can repeat the cycle. The instructor can enhance students’ improvement by giving feedback as frequently as possible and calling students’ attention to changes in their reflective process over time. Feedback must be given early enough that students have the opportunity to change. Hence, a minimum evaluation would be at midterm and at the end of the term. More often would be better. Furthermore, discussion groups after the first evaluation should provide students who wish to participate a chance to discuss their evaluations—much can be accomplished by talking through nuances in situations and by allowing students to help each other see multiple aspects of situations.

*Conclusions*

In summary, then, our solution to the problem of how to evaluate student performance in academically based service is:

- To use students’ writing about their experience as the artifact which is actually evaluated
- To evaluate the writing by assessing the level of the reflective process expressed in the writing (the level is determined by comparison to a model developed by Kitchener and King)
- To use the goals of the course as the frame within which the student’s reflective process is evaluated—that is, as providing the purpose of the service learning activity, the context within which the student places his or her experiences, and hence, the problem or “dilemma” the student is trying to solve. The goals are used this way since reflection (as conceptualized here) is inherently goal directed—it is part of the process of making choices.

Note that we are not primarily measuring the student’s performance against the goals themselves, in the sense of ticking off items accomplished on a checklist. Rather we are assessing the level of reflection evidenced by the student in the process of attempting to accomplish those goals.

*Future Directions*

The model presented here has been primarily worked out as a theoretical solution to the problem of student evaluation. Much research is needed on the model. First and foremost, it needs to be tested by instructors in several different types of courses. Based on the results of such testing, improvements will need to be made.

Also, measurements of changes in student’s reflective levels over the duration of an academically based service experience would be of great value. Many questions could be asked, for instance: How much change can an instructor reasonably expect? Are there any patterns to when the change occurs? Do different types of experiences lead to more change than others? To what extent are changes retained after completion of the experience? If students are given explicit instruction in the nature of the reflective process, does that yield higher reflective levels?

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ENDNOTES


2. From the syllabus for Economics 335, offered fall 1992 at Calvin College by George Monsma.

3. "Theory-to-Practice paper" is a term used to describe a type of writing in which students are explicitly asked either to use specified theories to explain their observations in a particular setting or to use their observations to critique a theory.


6. Ross, op. cit

7. This is a modified version of a chart from the paper by Ross cited above.


9. It does not seem to us that a quantitative evaluation is suitable in this setting. Quantitative measures require the establishment of an underlying theory of the entity being measured which is sufficiently well-developed to allow meaningful comparisons between entities and to justify the numerical assignment. (See Bradley & Schafer, forthcoming.) We don't even have such a theory and even if we did, it doesn't seem to us reasonable to ask that clients and agencies learn enough about it to use a quantitative measure.

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