

Assessing Service-Learning in Teacher Education

By Silva Karayan & Paul Gathercoal

An Overview of Service-Learning in Teacher Education

In preservice teacher education programs throughout the country, service-learning is proliferating. A survey conducted by the National Service-Learning in Teacher Education Partnership (1998) reported that more than 225 of the approximately 1,200 teacher education programs in the nation offer service-learning experiences, and another 200 are interested in developing such opportunities for preservice teachers. Although interest and engagement in preservice teacher service-learning continues to grow, some faculty remain skeptical of service-learning theory and practice, demanding stronger evidence for the value of engaging in this curricular activity (Gelmon, Holland, Driscoll, Spring, & Kerrigan, 2001; Wade, et al., 1999).

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Service-learning is the integration of community service activities with academic skills, content, and reflection on the service experience (Cairn & Kielsmeier, 1999). It combines meaningful service within a community with formal educational curriculum. *Service-learning* stands in sharp contrast to traditional *community service* in that it includes reflection and extends naturally from organized school

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curricula. The service-learning experience is mutually beneficial to all who are involved in its development and implementation. In practice, service-learning can be described as follows. Preservice teachers enrolled in a biology course are learning nutritional basics and are encouraged to apply that learning in meaningful ways. They resolve to develop a healthy diet for people recovering from cancer. They purposely and deliberately work with a community food bank and provide nutritional seminars demonstrating how people can make healthy meals and food choices that include those known to fight off cancer. Throughout the planning and implementation of the service-learning project, the preservice teachers reflect on their work and its effect on themselves, the community food bank and its constituents.

Many researchers acknowledge that the relationship between academic achievement through preservice teacher service-learning activities and assessment, evaluation and reporting has been problematic (Steinke & Buresh, 2002; Moore, 1999; Eyer & Giles, 1999; Mabry, 1998; Pritchard, 2002; Troppe, 1995). Shumer (2002) suggested that service-learning is a form of qualitative research. However, the needs of preservice teacher service-learning and researchers can provide motivation to make the changes that can improve the problematic relationships between service-learning activities and assessment, evaluation and reporting. To achieve this end, teacher educators in concert with their preservice teachers can design, implement, and assess or evaluate quality service-learning projects. Service-learning projects should include: (a) criteria that distinguishes between community service and service-learning (Pritchard, 2002); (b) assessment, evaluation and reporting process that emphasize continuous improvement throughout the service-learning activity (DeZure, 2002); (c) assessment techniques that measure impact on individuals and the organizations served, including the preservice teacher (Troppe, 1995); and (d) deliberate recognition that the relationship between service-learning activities and standards-based reform is crucial to the continued survival of service-activities in teacher education (Pritchard, 2002).

In many instances, the educational response to this call for improved assessment or service-learning activities has been to develop preservice teacher portfolios in field-based courses that address learning outcomes. However, preservice teacher portfolios have done little to address the inconsistency between subjective responses to service-learning activities and the more objective measures embedded in standards-based assessments. Teacher educators critique preservice teacher portfolios as too labor intensive to produce, monitor, support and evaluate. Nonetheless, preservice teacher portfolios tend to proliferate as they can be used to assess and promote learning simultaneously (DeZure, 2002).

Recognizing the potential of portfolio assessment, this article describes an approach and an innovative technology used at California Lutheran University (CLU) that responds to the problematic relationship between preservice teacher service-learning projects and assessment, evaluation and reporting. This innovative technology enables teacher educators to positively address the changes mentioned

above; namely, clear criteria to distinguish between community service and service-learning, an assessment process for continuous improvement, assessment techniques that measure the impact on all stakeholders, and the importance of standards in the design and assessment of preservice teacher service-learning activities.

The approach to infusing service-learning in the CLU teacher preparation program is to create a component of service-learning in each class. The goal is to teach preservice teachers about service-learning by involving them in the process of planning and implementing service-learning activities themselves. The purpose is to enrich the teaching and learning process. Service-learning is not an extracurricular activity but a pedagogical method in which service-learning projects form the bases of learning opportunities.

A Framework for Assessment Developed through “Portraiture”

Service-learning is a complex approach to teaching and learning. It needs and deserves approaches to assessment, evaluation, and reporting that are capable of capturing that complexity. To obtain consistent and reliable results concerning the impact of service-learning on the various stakeholders, it is important to produce high quality service-learning activities and projects. CLU research on special education preservice teacher candidates between Fall Semester 1996 and Spring Semester 2000 indicated that the Alliance for Service-Learning in Education Reform (ASLER, 1993) standards of high quality service-learning projects provide an excellent framework for assessing, evaluating and reporting proposed and completed preservice teacher service-learning projects (Karayan & Gathercoal, 2003). Karayan and Gathercoal (2003) employed a research methodology called “Portraiture” to assess preservice teacher service-learning projects collected over several years. Portraiture is an important and appropriate research tool for analyzing service-learning projects. It allows researchers to use inclusive and comprehensive means to capture the essence of service-learning stories. Lawrence-Lightfoot & Davis (1997) offer the following description of Portraiture:

Portraiture is a method framed by the traditions and values of the phenomenological paradigm, sharing many of the techniques, standards, and goals of ethnography. But it pushes against the constraints of those traditions and practices in its explicit effort to combine empirical and aesthetic description, in its focus on the convergence of narrative and analysis, in its goal of speaking to broader audiences beyond the academy (thus linking inquiry to public discourse and social transformation), in its standard of authenticity rather than reliability or validity (the traditional standards of quantitative and qualitative inquiry), and in its explicit recognition of the use of the self as the primary research instrument for documenting and interpreting the perspectives and experiences of the people and the cultures being studied. (pp. 13-14).

The researchers developed a taxonomy for evaluating service learning projects

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emanating from the elements recommended by the Alliance for Service-Learning in Education Reform (ASLER, 1993) for quality service-learning, and they placed preservice teachers' service-learning projects that involved students with special needs into three different categories: "deficit," "empowerment," and "reciprocal empowerment." The definitions for each category were developed using the criteria displayed in Table 1.

In the past, students with special needs have generally been viewed as recipients and beneficiaries of service-learning projects. The researchers referred to this phenomenon as responding to students' deficits or needs (the deficit model) which the general public perceives as compassion for the less fortunate. The preservice teacher service-learning projects studied in the portraiture research illustrated a shift from the deficit to the empowerment model and even the reciprocal empowerment model. This paradigm shift occurred as preservice teachers addressed and more closely aligned projects to the ASLER (1993) elements for high quality service-learning. As a result, the researchers found that many of the service-learning projects recognized, valued and utilized stakeholders individual strengths and experiences, as the preservice teacher learned by serving and served by learning. Karayan & Gathercoal (2003) concluded that, when designing service-learning projects, stakeholders need to plan and design service-learning projects using ASLER's standards of quality, to include students with special needs as reciprocal partners in the service-learning process, and focus on transforming the deficit model into the reciprocal empowerment model for service-learning.

Table 1
Taxonomy of Models and Criteria for Categorizing Service-Learning Projects Involving Students with Special Needs

Model	Criteria Present
"Deficit" Model	Provides quality service (1) Real need in community. Example: Preservice teacher candidates tutoring students with disabilities.
"Empowerment" Model	Provides quality service (1) Real need in community and (2) involves collaboration. Example: Preservice teacher candidates helping students with disabilities to work in food service in the school cafeteria.
"Reciprocal Empowerment" Model	Provides quality service (1) Real need in community (2) involves collaboration and (3) represents all stakeholders' voices. Example: Preservice teacher candidates choose to mentor 9 th grade students with special needs as the 9 th graders tutor 3 rd grade general education students.

To illustrate this distinction, the *Reading to See* project conducted by a preservice teacher shows the power and elegance of the reciprocal empowerment model. In this project, second graders who were practicing how to read with feeling and proper expression were provided an opportunity to read and record versions of *Aesop's Fables* to donate to an audiotape library at the Braille Institute in Los Angeles. Upon invitation from the Braille Institute director, the students (accompanied by their teacher and the preservice teacher) went to the Braille Institute to conduct live recordings of the fables and to donate, in person, their taped stories to the library. However, a big surprise, orchestrated by the preservice teacher, was waiting for the second graders at the Braille Institute. After the second graders completed reading and recording their fables, a few Braille Institute students with visual impairment came forward and read aloud to the children from Braille books. This project illustrates the reciprocal empowerment model of service-learning because, in addition to enhancing the second graders' academic learning, they were also empowered by providing service to The Braille Institute. Reciprocally, the Braille Institute students were empowered with the opportunity to demonstrate their reading and speaking skills and provide service to the second graders and their teachers by contributing to the richness of the service-learning experience.

The results of the study by Karayan and Gathercoal (2003) indicated that the more elements of quality service-learning that were purposefully planned for and included in preservice teacher service-learning projects, the greater the service and the learning for all concerned with the projects. By re-conceptualizing and deliberately structuring preservice teacher service-learning activities and projects, it is possible to enhance the quality of service-learning projects in teacher education.

An Innovative Technology for Assessment of Innovation

Traditionally, methods of assessment such as surveys, interviews, focus groups, observations, documentation, critical incident reports, and journals have been used to measure impact of preservice teacher service-learning experiences. However, new technologies like the ProfPort Webfolio System used at CLU have emerged that can enhance assessment, evaluation and reporting. To showcase this innovative technology, preservice teachers service-learning experiences demonstrated how the ProfPort Webfolio System can be used as a teaching, learning and assessment tool and as a research tool at the same time. This is only one example of how the ProfPort Webfolio System can be employed to enhance teaching, learning and assessment in all areas of teacher education. Visualize other areas the ProfPort Webfolio System could be used in teacher education as Gathercoal, Love, and McKean (2003) described the dynamic capabilities of webfolio systems:

The innate ability of webfolio systems to unite authentic assessment linked to educational standards, evaluation of educational programs and instructors, and the ability to report in "authentic ways" academic achievement linked to educational

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standards to those who have a need to know, irrevocably alters the traditional paradigm of portfolio assessment and denies the old criticisms of “validity and reliability.” It is this substantive improvement, recognizing and valuing the intrinsic links between portfolio assessment, program and instructor evaluation and the reporting of academic achievement that fortify the promise webfolio systems hold for being the next great innovation in education. (p.3)

The assessment framework for the design, implementation, and evaluation of quality preservice teacher service-learning projects, articulated earlier and corroborated by *Portraiture* research, works well within the ProfPort Webfolio System. Together they allow teacher educators and their preservice teachers to design and implement quality service-learning projects, provide an assessment, evaluation and reporting process that emphasizes continuous improvement throughout the service-learning activity, make possible the assessment of a set of impacts on all participants, and corroborate student outcomes by linking student-generated artifacts to educational goals and standards. These new capabilities inherent in the ProfPort Webfolio System improve the previously conducted *Portraiture* research, permitting the researchers access to qualitative data and providing quantitative data that emanates from standards-based approaches to teaching, learning and, most importantly, assessment.

According to DeZure (2002), assessment requires high levels of communication, collaboration, consensus-building, and knowledge of evaluation and measurement. Wright (2000) provided examples of assessing student learning. With the appropriate preparation by teacher educators, the ProfPort webfolio system can meet these requirements. Teacher educators can specify clearly within the system: (a) what preservice teachers will learn, (b) how they will serve, (c) how their field experience will give them a chance to learn academic content, (d) how they will construct opportunities to develop service-learning activities that focus on the content of the field experience, and (e) how to respond to guided reflective activities that enhance the intended learning goals.

Accessible via the World-Wide Web, the ProfPort Webfolio System allows preservice teachers to familiarize themselves with academic expectations for service-learning projects, provide authentic responses to those expectations, and redeem their academic work as they are mentored through service-learning projects by knowledgeable teacher educators. It is a process approach to teaching, learning and assessment that takes advantage of the World-Wide Web and computer-based technology, enhancing communication between preservice teachers and their mentors.

Implementing and Using Data from Systematic Assessment of Service-Learning

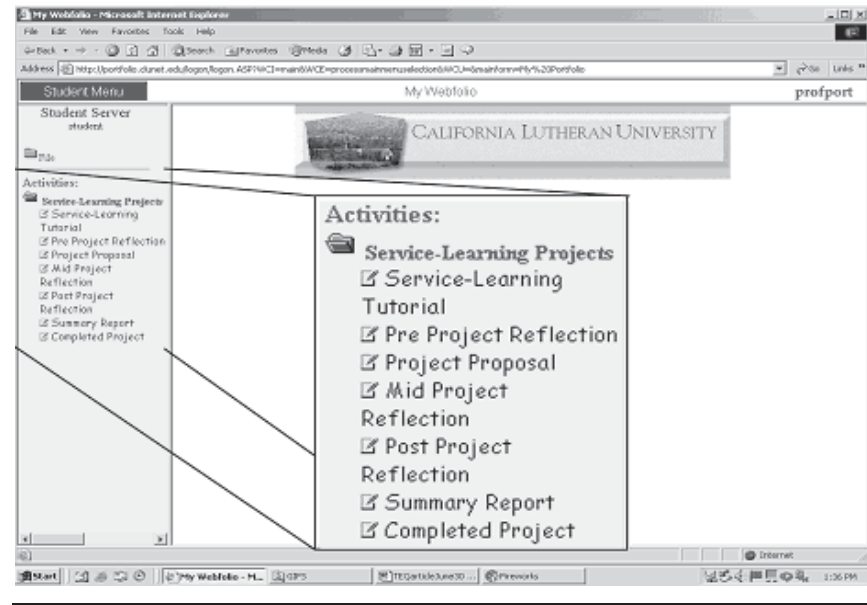
The ProfPort Webfolio System provides database architecture for instructor assignments, learning resources, student artifacts, mentor feedback, and curriculum

standards. At CLU, it is used for integrating preservice teacher service-learning activities, stakeholders' reflections and field notes, all in one portal, as shown in Figure 1. The opening screen on the preservice teachers' webfolios indicates the process for developing, implementing, reflecting upon, summarizing and reporting on their service-learning project. The "Activities" folders house the assignment, help, resources and assessment information set up by faculty and a place for preservice teachers to display their responses to each part of the process.

The ProfPort webfolio system also allows integrated support and mentoring for preservice teachers, as teacher educators and mentors guide them through the service-learning process with structure and reflective feedback. When mentors provide feedback on preservice teachers' academic work, the comments are kept as electronic logs and viewed only by the preservice teacher who generated the artifact and their teacher educators and mentors. As shown in Figure 2, the preservice teacher's webfolio in "edit mode" shows how the preservice teacher can read comments from faculty and mentors as they are guided through the service-learning project.

The ProfPort Webfolio System supports continuous curriculum improvement and allows all educators to share teaching and learning strategies, learning resources, and assignments with their colleagues. The enhanced communications between faculty, mentors, and students who use the ProfPort Webfolio System provides direct measures of the impact service-learning has on preservice teachers

Figure 1
The Opening Screen on a Preservice Teacher's Webfolio



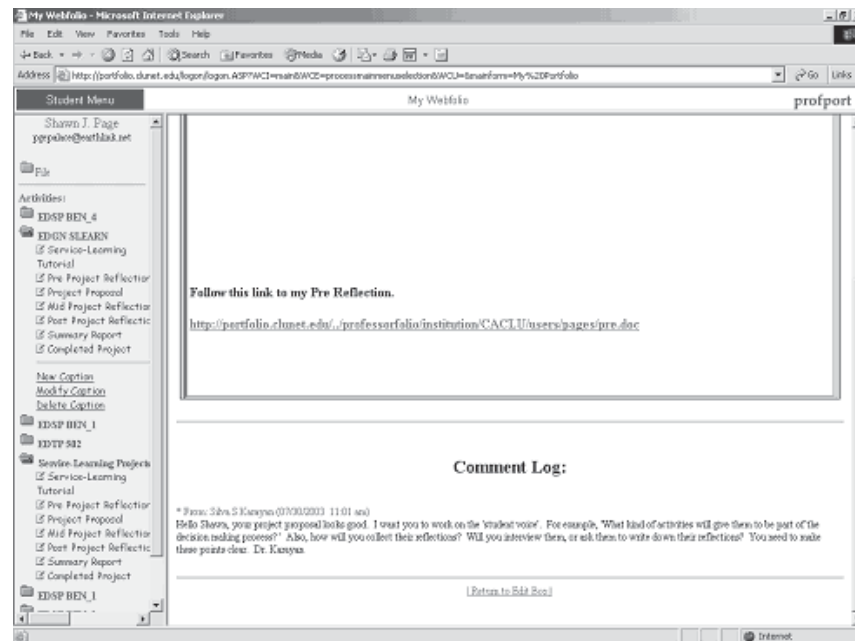
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as the webfolio system makes possible the integration of assessment, evaluation and reporting into service-learning pedagogy. DeZure (2002) comments on the benefits of marrying pedagogy with assessment in webfolio systems:

Assessing students' work integrated into courses offers a more valid, reliable, and sustainable approach to assessing impact. Such measures move beyond self-report, providing direct evidence of student cognitive skills and insights. These measures can also readily accommodate artifacts of student work produced for their community placements, course assignments that demonstrate mastering academic course-content, and metacognitive tasks and reflection about their achievements and learning experiences. (p.77)

This is a deliberate, intentional, and methodical process. The structure provided by the assessment framework and the ProfPort Webfolio System helps students to design quality service-learning activities and link them to standards and goals associated with the host institution's conceptual framework, academic goals, and standards associated with specific disciplines. With the use of the webfolio system, service-learning is deliberately integrated into the regular teacher education academic curriculum. Educational strategies are more likely to prove effective if the teaching strategy, curriculum, learning opportunities, and assessment of an

Figure 2
Example of Feedback Capability



educational approach are all congruent with a standard that identifies what students are meant to accomplish (Pritchard, 2002). The ProfPort Webfolio System helps achieve this goal when each service-learning activity is linked by faculty to curriculum goals and standards, as well as the CLU School of Education's conceptual framework. In this way, the ProfPort Webfolio System facilitates standards-based reform by integrating the curriculum with standards-based accountability consistent with the CLU School of Education's academic initiatives. As shown in Figure 3, faculty link assignments to standards in the relevant disciplines as well as the conceptual framework of the School of Education.

Preservice teachers then apply the rubric, to design, prepare, and implement their service-learning projects. Communicating academic expectations through rubrics assists preservice teachers who then post their proposals and other academic work on the World-Wide Web in the ProfPort Webfolio System. Faculty and mentors access the proposals and other academic work, and, using the rubric to provide formative assessment, comments and suggestions to improve the project are noted. As shown in Figure 4, the assessment framework addresses preservice teacher competencies related to integrated learning, quality service, collaboration, student voice, civic responsibility, reflection, and evaluation.

Preservice teachers use the formative assessment to make the necessary changes and adjustments prior to the implementation of the service-learning project. Upon

Figure 3
Assignments and Standards Linked

Caption/Title	Project Proposal
Caption/Title order (1-999)	5
Competencies will appear in Webfolio	11/21/2002
Artifact/Content lock date	
Learning Taxonomy for Competencies	Evaluation
Competencies type	Written
<u>Educational Standard(s)</u>	-School of Education STRIVE and ACTION
<u>Program Goals</u>	-Service-Learning Selected Goals(s)- 1 Integrated learning 2 High service 3 Collaboration 4 Student voice 5 Civic Responsibility 6 Reflection 7 Evaluation 8 Celebration

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Figure 4. Assessment Framework

Standard	Description	P O I N T S				
Integrated Learning	<p>The service learning activity has clearly articulated knowledge, skill, or value goals that arise from the broader academic goals.</p> <p>The service informs academic learning content & academic learning content informs the service.</p> <p>Life skills learned outside the classroom are integrated back into classroom learning.</p>	3	2	1	0	0
Quality Service	<p>The service responds to an actual community need that is recognized by the community.</p> <p>The service is student-appropriate & organized.</p> <p>The service is designed to achieve significant benefits for students and the community.</p>	3	2	1	0	0
Collaboration	<p>The service learning activity is a collaboration among students, community-based organization staff, teachers, & recipients of service.</p> <p>Partners' roles & expectations are clearly defined.</p> <p>All partners contribute to the planning of the service activity and benefit from it.</p>	3	2	1	0	0
Student Voice	<p>Students are actively involved in choosing and planning the service-learning activity.</p> <p>Students participate in planning reflection sessions, evaluations, and celebrations.</p> <p>Students take on roles appropriate for their maturity and commitment level.</p>	3	2	1	0	0
Civic Responsibility	<p>The service-learning activity promotes students' responsibility to care for others and contribute to the community.</p> <p>Students are exposed to adult role models.</p> <p>Students understand the context of their actions and how they can impact their community.</p>	3	2	1	0	0
Reflection	<p>Reflection establishes connections between service experiences and academic curriculum.</p> <p>Reflection occurs before, during, and after the service experience.</p> <p>Through structured reflection students examine the process and outcomes of their activities.</p>	3	2	1	0	0
Evaluation	<p>All partners are involved in evaluating the project.</p> <p>Evaluations respect diversity of participants' learning styles.</p> <p>Evaluations are an integral part of planning & measure the learning and service goals.</p>	3	2	1	0	0

completion of each assignment, faculty assign a summative numeric score that corresponds to a rubric determined by the faculty in each department. For service-learning, the summative score indicates the status of each part of the project: Unacceptable (“Deficit”), Acceptable (“Empowerment”), and Target (“Reciprocal Empowerment”), as illustrated in Figure 5.

At the end of each semester, the assessment data can be extracted from the ProfPort Webfolio System to show how preservice teachers have met the designated standards and goals, as shown in Figure 6. The distribution of preservice teacher assessment scores for one specific service-learning standard (Quality of Service Learning) shows that fewer students scored in the unacceptable range over the 3-semester time period. Moreover, more students achieved scores in the acceptable range in 2001 compared to 2000 and 1999. This indicates that instructional supports have been effective in empowering preservice teachers to achieve the standards related to quality.

Discussion

In summary, The ProfPort Webfolio System is used to quantify the elements of high quality service-learning that drive the development of service-learning projects in the School of Education at CLU. The webfolio system enables faculty to assess the quality of a service-learning project as preservice teachers are developing it, as well as assessing the impact of the service-learning project. This approach produces better and more reliable results as it integrates both formative and summative assessment practices and provides students with multiple opportu-

Figure 5. The Assessment Rubric

Departmental Assessment Measure Rubric

profport

Evaluate Mastery of the Artifact and enter a score in the Assessment Score box. Click [Apply] to record the score or [Cancel] to leave the score unchanged.

1	2	3
Unacceptable	Acceptable	Target
Have not mastered the concepts presented	Have mastered the concepts presented	A thorough and in-depth understanding of the concepts presented

Assessment Score:

Apply Cancel

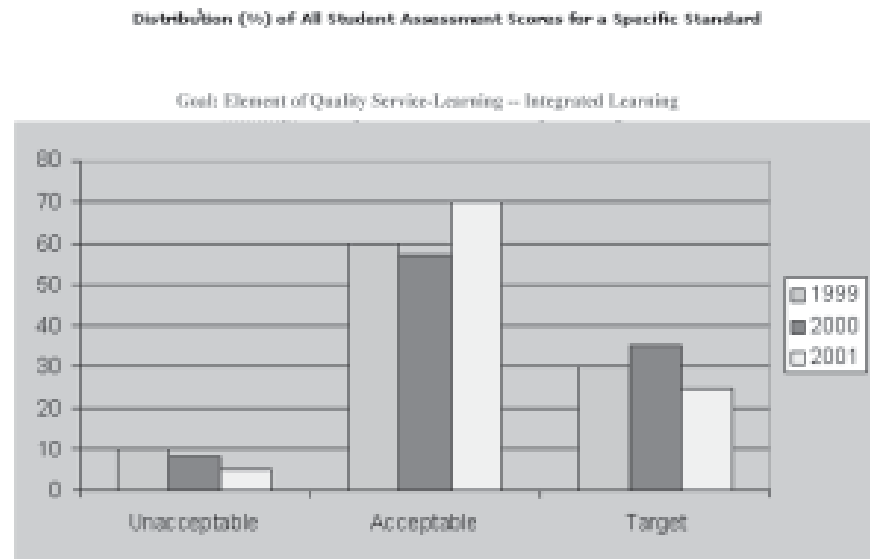
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nities to master the content and process. This practice addresses Moore's (1999) idea that high quality service-learning projects using higher standards for quality will produce more reliable results.

The disadvantage to using the ProfPort Webfolio System revolves around the lament, "There's not enough time." Using the ProfPort Webfolio System requires a paradigm shift from traditional portfolio assessment to portfolio assessment, program evaluation, and reporting. Only in educational communities where authentic assessment is valued and promoted will the ProfPort Webfolio System flourish. Until webfolios are simply viewed as another part of the educational culture, educators will always find some excuse not to use them, e.g., they take too much time or there is no time to learn to use the technology. Webfolios can assess and support teaching, learning and assessment simultaneously. Thus, the time and effort needed to produce, monitor, support and assess student webfolios becomes a natural extension of the teaching and learning process in institutions, like CLU, where portfolio assessment is valued and practiced. The promise is great when the institutional culture shifts to include the use of webfolios, as webfolios can challenge the mystique and authority of standardized tests which seem to be the guiding force behind education today.

The deliberate and conscious use of the standards of good practice and high

Figure 6
The Distribution of All Preservice Teacher Assessment Scores
for a Specific Service-Learning Standard over 3 Semesters



quality service-learning as *the* assessment framework, and the use of the ProfPort Webfolio System as *a* tool to implement the assessment framework in preservice teacher service-learning activities, can enhance the quality of service-learning projects as an innovative practice in teacher education. When the webfolio system is set up to guide preservice teachers through the process of developing service-learning proposals, implementing the project, reflecting on the experience throughout the process and displaying the results of the project through multimedia presentations all stakeholders benefit from quality service-learning projects.

The ProfPort Webfolio System is a tool that integrates aspects of assessment, evaluation and reporting into one web-based portal. It facilitates formative and summative assessment and provides information that can be used for program evaluation and needs assessment. As well, students can provide access to everyone in the world, via the World-Wide Web, using the ProfPort Webfolio System as a vehicle for reporting their accomplishments. The ProfPort Webfolio System may be the technological tool that will bridge the gap between standards-based accountability and authentic assessment. The ProfPort Webfolio System seems to provide a model for Eyer's (2002) comment:

We need to set our sights higher, to stretch further and to undertake more thoughtful, sustained, and focused research programs. One more survey, with more reports from students testifying to loving service-learning and learning a lot from it, will not give us what we need to convince policy makers of the value of our work or to provide evidence to practitioners to improve our practice on student outcomes. (p. 5)

Those educators who adopt service-learning as a teaching strategy are practicing Boyer's (1990) scholarship of engagement. Service-learning enriches the teaching and learning process; it bridges the gap between theory and the real world; and it offers teacher educators opportunities to engage in research as well as maintain an active role in service to the community. With proper and effective assessment, evaluation, and reporting, service-learning researchers can produce evidence of academic achievement that policy makers, administrators, and teachers demand.

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