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Jeffrey B. Anderson

Terry Pickeral

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Challenges and Strategies for Success With Service-Learning in Preservice Teacher Education

By

Jeffrey B. Anderson and Terry Pickeral

National Service Fellows

1998-99

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1201 New York Avenue, N.W.
Washington, DC 20525

(202) 606-5000

www.nationalservice.org

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Abstract

This study examined challenges to the use of service-learning in preservice teacher education and also strategies used to overcome those challenges. We surveyed 123 teacher educators, education deans, and state department of education service-learning coordinators to gain their perspective regarding challenges most critical to the use of service-learning in teacher education. We then interviewed 42 of the survey respondents to obtain detailed descriptions of specific strategies used to overcome challenges. Results indicate the most critical challenges relate to lack of time for teacher educators to plan and implement service-learning, an already overcrowded curriculum, and a lack of alignment of service-learning with faculty roles, rewards, and institutional priorities. Results include 155 specific strategies that address the most critical challenges as well as advice for teacher educators new to service-learning. The study provides evidence that teacher educators are able to devise and implement strategies that can surmount some of the barriers to the use of service-learning in preservice teacher education. It also provides a rich source of ideas to stimulate the thinking of teacher educators grappling with obstacles to the use of service-learning.

Introduction

“Teacher education has the honor of being simultaneously the worst problem and the best solution in education.”

--Michael Fullan, 1993

During the past decade there has been a revival of interest in service-learning in U.S. schools and colleges. A recent study by the U.S. Department of Education revealed that 32% of all U.S. public schools, and one-half of the high schools, include service-learning in their curricula (Skinner & Chapman, 1999). The most frequent reasons given for implementing service-learning activities were to help students become more active members of the community and to increase students' understanding and knowledge of the community.

Service-learning may be described as both a philosophy of education and an instructional method. As a philosophy of education, service-learning reflects the belief that education should help students develop personally while also enhancing their social responsibility through preparation for active citizenship in a democratic society. As an instructional method, service-learning involves a blending of service activities with the academic curriculum in order to address real community needs while students learn through active engagement and reflection (Cairn & Kielsmeier, 1991).

With strong support from the Corporation for National Service, service-learning is also proliferating in teacher education programs throughout the United States (Wade, et al., 1999). In a recent survey The National Service-learning in Teacher Education Partnership (1998) identified over 300 teacher education programs in the U.S.A. that offer students service-learning experiences, and another 300 that were interested in developing such opportunities for preservice teachers. The prospective teachers in these programs typically engage in service-learning by working with children in need through schools and community agencies, assisting P-12 teachers in the design and implementation of service-learning with their students, and developing service-learning activities for use during student teaching (National Service-Learning in Teacher Education Partnership, 1998). In addition, Jones, Ryan, and Bohlin (1998) report that service-learning was the second most frequently used approach to character education among a national

sample of teacher education programs, with 54% of their respondents citing it as being a component of their program. Teacher educators offer a variety of reasons for integrating service-learning into their courses, ranging from preparing new teachers to use service-learning as a pedagogy to helping to socialize new teachers in the essential moral and civic obligations of teaching, including teaching with “care”, and developing a commitment to advocate for social justice (Anderson, 1998). Educators at all levels report that well-designed and implemented service-learning activities can help address these concerns while simultaneously providing students opportunities for enhancing academic knowledge and skills and personal growth (Root, 1997).

A number of studies have determined that teacher education students have largely positive experiences with and attitudes toward service-learning (Anderson & Guest, 1993; Boyle-Baise, 1997; Seigel, 1994; Wade & Yarbrough, 1997). Recent research has also found that a majority of beginning teachers who participated in service-learning during their preservice preparation intend to use it as a pedagogy with their P-12 students and that approximately 30% actually do so (Anderson, Connor, Grief, Gunsolus, and Hathaway, 1996; Wade, et al., 1999).

Initial research results, teacher educators, and preservice teachers all suggest that service-learning can be a worthwhile and powerful learning experience. But there are also serious challenges to its successful use in teacher education, including the already overcrowded curriculum, the difficulties of arranging successful P-12 and community service-learning sites, and linking service-learning to state and national teacher education accreditation standards (Anderson, 1998). If not resolved these challenges will limit service-learning initiatives to superficial efforts isolated from the mainstream of teacher education.

Despite this rapid growth and great potential for positive results very few authors have discussed specific strategies for surmounting these challenges and successfully implementing service-learning in preservice teacher education. As the number of teacher educators engaged in service-learning grows there is a pressing need to identify promising practices, exemplary curriculum, effective partnerships, and other elements leading to high-quality service-learning integration.

In this study we wanted to find out what experienced service-learning teacher educators, education deans, and state department of education service-learning coordinators see as the primary challenges to the effective use of service-learning in preservice teacher education. In addition, we examined specific strategies innovative teacher educators have found to be successful in helping them to overcome or work around these challenges. The results of this study provide important information for both policy-makers interested in the reform of P-12 and teacher education and practicing teacher

educators focused on achieving the goals of preservice teacher education through the use of service-learning.

CONCEPTUAL FRAMEWORK

Many articles have been written which discuss challenges to the use of service-learning in K-12 and higher education. Far fewer have focused on challenges to the use of service-learning in preservice teacher education, and only a very limited number have offered suggestions for addressing these challenges.

We organize the most relevant of these studies into three sections: 1) documents that address challenges and recommendations regarding the use of service-learning in higher education, 2) documents that address challenges and recommendations regarding the use of service-learning in K-12 education, and 3) documents that focus on challenges and recommendations regarding the integration of service-learning in preservice teacher education.

Service-learning in Higher Education

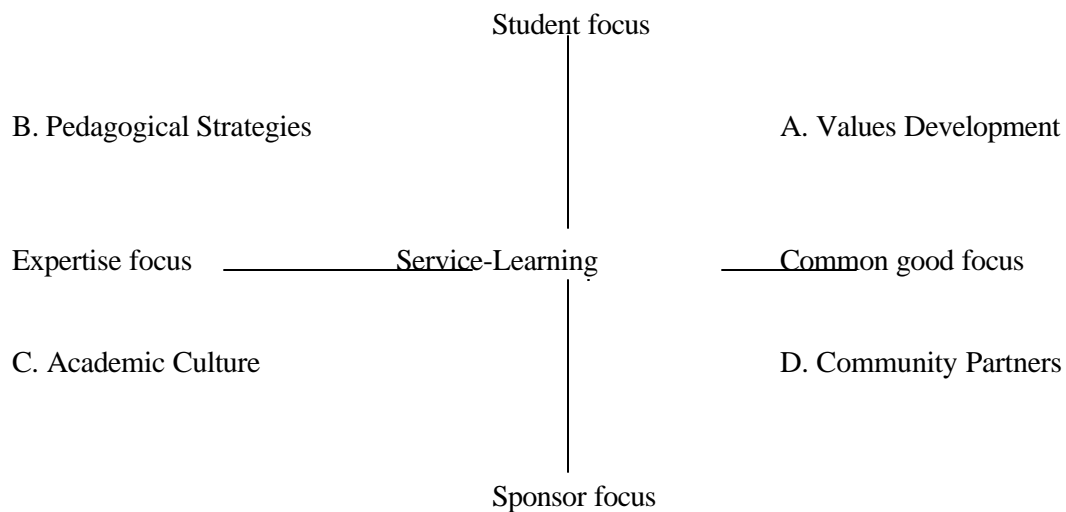
Bringle and Hatcher (1996) developed a comprehensive action plan for integrating service with the academic curriculum in higher education based on a three year Campus Compact Project. They present over 100 specific suggestions that can be employed to improve the quality of service-learning in higher education. These recommendations are presented in a matrix format with the horizontal axis divided into suggestions for: 1) institutions, 2) faculty, 3) students, and 4) the community. The vertical axis is structured around ten activities or goals, including: (1) planning, (2) awareness, (3) prototype, (4) resources, (5) expansion, (6) recognition, (7) monitoring, (8) evaluation, (9) research, and (10) institutionalization.

Each cell in the matrix includes at least one recommendation and many include three or more. Examples of suggestions in the planning category include, for institutions “form an advisory committee; for faculty “survey faculty interest and service-learning courses currently offered”; for students “survey student attitudes toward service and service-learning”; and for the community “identify community representatives for service-learning planning groups and advisory committees.”

Zlotkowski (1998) created a “Service Learning Conceptual Matrix” (see below) to assist those in higher education in understanding how service-learning interfaces with other, more established, institutional concerns. The horizontal axis of the matrix extends from “expertise focus” on the left to “common good focus” on the right. The vertical axis places “student focus” at the top and “sponsor

focus” at the bottom. This results in the formation of four quadrants: A) values development, B) pedagogical strategies, C) academic culture, and D) community partners. Although Zlotkowski does not include specific strategies to facilitate service-learning integration, the matrix does provide a helpful device to understand the conceptual richness of service-learning and delineate and arrange its essential components. Zlotkowski believes that practitioners of service-learning must attend to all four quadrants represented in the matrix in order to ensure the successful use of service-learning.

Service-Learning Conceptual Matrix



Ward (1998) addresses challenges that must be resolved to assimilate service-learning into an institution of higher education. These include: 1) administrative support, 2) familiarity with course-based service, 3) funding, and 4) faculty involvement. She then offers seven strategies for faculty and administrators to use to advance service-learning:

1. Make sure all administrators-presidents, provosts, vice presidents, deans, department chairs-are familiar with campus service-learning initiatives.
2. Change takes place slowly and incrementally; try to influence culture at all levels.
3. Create formal and informal committees and groups to help direct the efforts of service-learning.
4. Service-learning is undoubtedly related to other university-based initiatives; tie into them.
5. Work with faculty senates and curriculum committees to stress the academic side of service-learning.
6. Address faculty reward structures, for they mirror institutional priorities.

7. Provide data about the benefits of service-learning. (pp. 78-79).

Service-learning in K-12 Education

Bhaerman, Cordell, and Gomez (1998) discuss a variety of barriers to be overcome for service-learning to be integrated into curriculum and instruction in K-12 education. The first of these barriers is the education reform movement itself. Due to an increase in the number of required courses and/or the greater emphasis placed on standardized test scores and the achievement of an increasing number of standards, there is a reduced amount of space available in the curriculum for elective and exploratory courses. Given this tightly defined curriculum only a few innovative teachers are able to find ways to plan and implement service-learning activities (Schine, 1989).

Lack of time is another key challenge to the use of service-learning addressed by Bhaerman, Cordell, and Gomez. More time is needed for students to complete service-learning experiences and faculty need more time to arrange service-learning logistics. A related issue is the difficulty of providing service-learning students with adequate supervision. A third barrier involves the lack of quality placement sites for service-learning experiences, especially in rural areas with few transportation options available (Parsons, 1993). Bhaerman, Cordell, and Gomez cite Shaffer (1993) as identifying three other unmet needs that can impede success with service-learning. These are the lack of a single clear accepted definition of service-learning, the lack of explicit outcomes for service-learning, and the lack of evaluation studies that document the impact of service-learning experiences on students' academic and emotional development. The Council of Chief State School Officers (1995) identified several additional concerns including lack of time for professional development and planning regarding service-learning, the need for more flexible time frames such as block scheduling, more supportive policies and resources to facilitate success with service-learning, and lack of effective assessment instruments that go beyond paper and pencil testing and standardized tests.

The National Service-Learning Cooperative (1998) identified 16 Essential Elements of service-learning practice, based on their experience teaching and implementing service-learning. These elements are organized in six clusters: 1) learning, 2) service, 3) critical components that support learning and service, 4) mission and policy, 5) organizational structure and resources, and 6) professional development. Clusters four through six are geared for organizations implementing service-learning. The five elements in this area present challenges to implementation, including: 1) assuring service-learning is connected to and relevant to the district's mission, 2) developing school and district policies designed to support quality service-learning practice, 3) providing the structural elements and resources necessary to sustain high quality service-learning practice, 4) providing teachers with strong training in the philosophy

and pedagogy of service-learning, and 5) providing teachers with on-going opportunities to refine and improve their service-learning practice. Each essential element is elaborated on in one or more benchmarks and examples which provide more detailed descriptions of components of that element. Strategies for integrating the elements are not included.

Witmer and Anderson (1994) discuss numerous issues and critical decisions that must be made by K-12 educators who implement service-learning. These range from program design options to issues regarding criteria for service-learning activities. They conclude by offering ten suggestions to assist K-12 educators in staying on the right track with service-learning:

1. Ground your program in your school's mission and goals.
2. Get as much agreement from as many stakeholders as possible. Don't be a lone voice.
3. Be sure change comes from both the top down and the bottom up, and includes all constituencies.
4. Let the community and agency tell you about their needs.
5. Don't allow conflict to brew. Get it out in the open.
6. Try to keep the program and staff consistent during the first few years.
7. Don't expect the program to work by itself. Students must receive preparation and support.
8. Service-learning will be revitalizing; it won't be a panacea.
9. Plunge in and don't turn back. Don't fall into inertia waiting for the perfect moment.
10. Know your efforts will take more time and resources than you expect.

Service-Learning in Preservice Teacher Education

Many authors agree that service-learning should be integrated into preservice teacher education in order to achieve the maximum positive impact on the next generation of teachers and K-12 students (Wade, 1997; Erickson and Anderson, 1997; California Department of Education, 1999; Swick, 1998). They acknowledge that this worthwhile endeavor is filled with difficulties, but that the benefits outweigh the challenges involved. This review describes some of the key challenges and recommendations for successful integration of service-learning into preservice teacher education developed by experienced service-learning teacher educators and service-learning experts.

Allam (1993) reported the recommendations of a group of teacher educators and state department of education officials from the state of Mississippi. In order to accomplish the infusion of service-learning in preservice teacher education on a comprehensive scale, they urge:

1. Link student teaching placements with local schools receiving grants under the National and Community Service Act. These students should in turn work in teams with teachers and administrators trained in service-learning to restructure the learning environment.
2. Design a state-wide training model on the theory and practice of service-learning for teacher educators. Personal faculty involvement in the experiential learning process is the most significant avenue to leverage support and understanding for service-learning.
3. Promote collaboration among universities, school districts, and state education agencies to reform assessment, certification, and accreditation policies, regulations, and practices that are counterproductive to the improvement of teacher education and hence of teaching and learning.
4. Infuse service-learning concepts and practices into the philosophy and culture of teacher education programs, not just as separate methods courses or practica.

Erickson and Anderson (1997) discuss three reasons commonly given by teacher educators to explain why they do not incorporate service-learning into their preservice programs:

1. Service-learning is experiential. Teachers learn it just by doing it; therefore explicit preparation is unnecessary.
2. Preparation in the use of service-learning is not productive until after teachers have resolved many of the challenges faced by novice teachers; therefore it is not useful in preservice education programs.
3. There is no room in our program for anything else. If we added service-learning, what would we take out?

Erickson and Anderson then provide eight recommendations to assist teacher educators in overcoming the challenges involved with integrating service-learning into their teacher education curriculum:

1. Spend time with preservice teachers helping them develop an understanding of essential elements of effective service-learning, especially the distinction between service-learning and community service.
2. The experiential component of service-learning is essential for preservice teachers to gain the knowledge and skills needed to implement service-learning projects.
3. Seek out K-12 and community partners who receive support from sources such as the Corporation for National Service.
4. Integrate service-learning throughout a variety of courses in the teacher education program.
5. Work to create service-learning placements in K-12 schools that extend over a substantial period of time.

6. Service-learning field placements sites, whether in K-12 schools or other community agencies do not need to be practicing ideal models of fully developed service-learning projects.
7. Prospective teachers need to be encouraged to “start small, but jump in” with regard to beginning new service-learning projects during student teaching or their first year of employment.
8. Support beginning teachers in their use of service-learning with resources and technical assistance.

The California Department of Education issued The Report of the Superintendent’s Service-Learning Task Force in early 1999. This report recommends the inclusion of service-learning as a vital instructional strategy in teacher education programs and presents strategies to facilitate the achievement of this goal, including:

1. Provide teacher educators with training that connects service-learning to many of their other teaching strategies, such as project-based learning.
2. Teacher educators and K-12 teachers must discuss service-learning as a teaching strategy and identify ways in which K-12 and teacher educators can support each other’s service-learning efforts.
3. The approach to incorporating service-learning into teacher education must be strategically planned and institutionally driven. Great emphasis must be placed on working with education school deans and other university officials so that service-learning is understood well by everyone in the program.
4. Service-learning must be incorporated in a comprehensive manner that includes, at a minimum, service-learning being taught as a teaching method, teacher educators using service-learning in their classes, and placing student teachers with K-12 teachers who use service-learning effectively.
5. Methods courses must provide prospective teachers with direct instruction regarding the use of service-learning as a pedagogy, and provide them with opportunities to practice this pedagogy with the full support of those around them.

Wade et al. (1999) conducted a multi-institution research study to examine beginning teachers experiences with service-learning. Results indicate that 30% of the novice teachers in the study implemented service-learning as a teaching strategy during their first years in the classroom.

Recommendations for teacher educators developed from the data collected include:

1. Teacher educators should provide multiple service-learning experiences for preservice teachers through classes, practica, and student teaching. These experiences

- should be positive ones and should include meaningful, enjoyable service and frequent opportunities for different types of reflection.
2. Teacher educators should also encourage their students to implement service-learning in their future classrooms by having them brainstorm ideas for simple, low-cost projects and to plan appropriate reflection and assessment strategies.
 3. Preservice teachers need to have considerable ownership for the service-learning projects they implement with K-12 teachers and students during practica and student teaching placements.
 4. Teacher educators should work with local school districts to help them develop comprehensive service-learning programs and to secure funds to hire service-learning coordinators and provide financial support for project costs.

Conclusion

These documents provide a wide variety of types of assistance to teacher educators interested in the use of service-learning. Several authors (Bringle and Hatcher; Zlotkowski; Ward) offer a structure or format to help in organizing and making sense of the numerous challenges and recommendations proposed by others. Others offer specific strategies for experiencing success with service-learning (Wittmer and Anderson, Wade, Allam, California Department of Education).

It is striking to note the many similarities between the challenges faced by K-12 service-learning educators and their counterparts in higher education. In addition, many of the challenges to the use of service-learning and the recommendations offered for integrating service-learning into teacher education mirror those suggested for K-12 schools and higher education in general. Another theme running through many of the documents is the recognition that the reform of teacher education is intimately connected to improvements in K-12 schools (Allam; Wade; Erickson and Anderson).

METHODOLOGY

Participants

The participants in this study were 72 teacher education faculty with experience using service-learning, 22 teacher education faculty without service-learning experience, 13 deans of education schools in which service-learning was being used, and 16 state department of education service-learning coordinators, for a total of 123 participants. Participants included 75 women (61%) and 48 men (39%). 118 (96%) of the participants are Caucasian, two African-American, and three Latino.

Regarding the 72 teacher education faculty who used service-learning, 26 (36%) implemented service-learning with preservice teachers in elementary level programs, 9 (13%) in secondary level programs, and 37 (51%) in programs at both levels. 63 (88%) of the teacher educators indicated that their program included instruction designed to prepare preservice teachers to use service-learning as a teaching method with their future P-12 students. These teacher educators had been using service-learning with their preservice teachers an average of 3.3 years in elementary level programs and 3.7 years in secondary level programs. Years of service-learning use ranged from 1.0 to 12.0. Types of teacher education courses that involved a service-learning component included: subject area methods (15), general teaching methods (11), foundations (11), introduction to teaching (9), multicultural education or human relations (8), child/adolescent development (7), separate service-learning course (6), research course (5), and independent study (3). These types of courses total 98 because some teacher education programs integrated service-learning into more than one type of course.

Service-learning teacher educators were selected for participation in the study based on their involvement with a professional organization focused on the advancement of service-learning. These organizations included the National Service-Learning in Teacher Education Partnership, the American Association of Colleges for Teacher Education (AACTE) Service-Learning Special Study Group, or the AACTE Service-Learning and Teacher Education (SLATE) Project. All members of these organizations were included in the study. Deans were selected randomly from schools of education at which the service-learning faculty taught. Non-service-learning teacher educators were chosen at random from a list of AACTE institutional representatives. State education agency service-learning coordinators were selected at random from a list of members of the State Education Agency (SEA) Service-learning Network.

Thirty of the service-learning teacher educators were selected for interviews based on having at least three years experience with service-learning in their teacher education program, their willingness to

be interviewed, and their approximate representativeness as a group to the larger sample. Among the 30 interviewees, 21 were female (70%), and 9 (30%) were male, and 29 (96%) were Caucasian.

Instrument development

We developed drafts of the surveys and interview questions based on prior research and writings on higher education and K-12 faculty experiences with service-learning (Bringle and Hatcher, 1996; Ward, 1998; Witmer and Anderson, 1994; Anderson et al., 1996; Wade, 1997; Erickson and Anderson, 1997), our personal experiences with service-learning, and information we wanted to gain regarding teacher educators experiences with service-learning. We then conducted a pilot study of both the survey and the interview questions with a small group of teacher educators, deans, and state department of education service-learning coordinators not included in the full study. Feedback from these individuals resulted in further refinements to both the survey and the interview questions.

The survey included basic demographic data as well as 22 issues that could be challenges to the use of service-learning in preservice teacher education (Table 1 lists the 22 items; see Appendix A for the entire survey). These issues were organized into four categories: institutional issues, curricular issues, K-12 and community issues, and faculty and student issues. Participants were asked to rate each issue using a Likert-type scale ranging from 0-5, with 0 indicating “not a challenge” to 5 indicating “critical challenge”. The survey concluded with an open-ended question requesting participants to describe any other challenges they had experienced. Although the demographic section of the form differed for each of the three groups, the remainder of the survey, including the 22 challenges, was the same for all participants.

The interview questions were developed after survey data was received and analyzed. The interview consisted of a series of questions and a variety of follow-up probes (Appendix B) and focused on encouraging teacher educators to describe their service-learning challenges and provide detailed descriptions of strategies they used to successfully deal with each challenge. The interview followed a standardized, open-ended format (Patton, 1980).

Table 1
Survey items

Institutional Issues

- 1a. lack of funds
- 1b. liability/safety concerns
- 1c. lack of administrative support
- 1d. lack of alignment with institutional faculty roles and rewards
- 1e. lack of alignment of service-learning with institutional and/or department priorities
- 1f. lack of sustained professional development opportunities

Curricular Issues

- 2a. lack of time in preservice curriculum
- 2b. lack of time to plan
- 2c. lack of service-learning curriculum
- 2d. difficulty aligning service-learning with state/national teacher education standards
- 2e. difficulty linking service-learning with other education reform initiatives

K-12 and Community Issues

- 3a. transportation difficulties
- 3b. difficulty communicating with K-12 teachers and/or community agency staff
- 3c. lack of successful K-12 service-learning sites
- 3d. addition of service-learning detrimental to existing K-12-teacher education partnerships
- 3e. difficulty locating K-12 teachers interested in learning about service-learning
- 3f. lack of service projects appropriate for K-12 and teacher education students

Faculty and Student Issues

- 4a. faculty lack time necessary to plan and implement service-learning
 - 4b. faculty unprepared to develop necessary long-term partnerships
 - 4c. faculty unprepared to use service-learning as a teaching method
 - 4d. lack of student interest in service-learning
 - 4e. other faculty not interested in service-learning
-

Data collection

During the Fall of 1998 surveys were mailed to 100 service-learning teacher educators, 50 non-service-learning teacher educators, 40 deans of schools of education in which service-learning was used in teacher education programs, and 30 state department of education service-learning coordinators. We received 72 surveys from service-learning teacher educators (72% response rate); 22 from non-service-learning teacher educators (44% response rate); 13 from deans of schools of education (33% response rate); and 16 from state department of education service-learning coordinators (53% response rate). Overall, we mailed 220 surveys and received back 123 for a 56% response rate. A follow-up survey was

sent to individuals who did not respond to the first mailing, and reminder phone calls made to non-respondents to both mailings.

The researchers conducted telephone interviews with 30 service-learning teacher educators during the spring of 1999. Each interview lasted approximately 40 minutes, and was tape recorded with the permission of the interviewee. Interview tapes were then transcribed.

Data analysis

We generated descriptive statistics (mean, standard deviation, standard error, variance, range, and others) for each of the four groups of survey participants. In addition, unpaired t-tests were used to compare means for each survey item between groups, between respondents from public and private institutions, and between males and females.

We conducted the qualitative data analysis using procedures described by Bogdan and Biklen (1992). First, transcripts were carefully read and re-read seeking specific strategies used to surmount service-learning challenges. These strategies were then summarized looking specifically for common themes and patterns. Finally, we drew conclusions while paying particular attention to identifying discrepant evidence and rival explanations (Miles and Huberman, 1984).

We used Zlotkowski's service-learning conceptual matrix (1998) to analyze and organize the strategies obtained in the interviews. The work of the National Service-Learning Cooperative (1998), Fullan (1993), Bringle and Hatcher (1996) and Erickson and Anderson (1997) provided the basis for additional descriptive and interpretive support.

RESULTS

We present the results of the study first for the survey data, then the interview data. Survey data results are organized into the following categories: (1) mean ratings of the 22 challenges, (2) differences in mean ratings among the four groups of participants, (3) differences in mean ratings between participants from public and private institutions, (4) differences in mean ratings between male and female participants, (5) differences in mean ratings between tenured and non-tenured service-learning faculty, and (6) additional challenges described by participants.

Interview data are organized by challenge with strategies for success with service-learning presented for 14 of the most critical challenges, including the top ten most challenging issues, including

frequencies of use for each strategy. This is followed by a summary of the advice interviewees would give to teacher educators new to service-learning.

Survey data

Mean ratings of the 22 challenges

Table 2 summarizes the mean ratings of each of the 22 challenges included in the survey for each of the four groups and for all groups combined (group 1, service-learning teacher educators (SLTE) (n=72) ; group 2, non-service-learning teacher educator (NSLTE) (n=22); group 3, deans of schools of education (ED) (n=13) ; group 4, state department of education service-learning coordinators (SDESLC) (n=16), and the combined mean).

Table 2
Means and standard deviations by group

Issue code	Group 1		Group 2		Group 3		Group 4		Combined	
	M	SD	M	SD	M	SD	M	SD	M	SD
1a	2.53	1.57	2.00	1.10	2.84	1.21	3.00	1.20	2.64	1.48
1b	1.28	1.25	2.29	1.38	1.77	.73	1.50	1.09	1.38	1.18
1c	1.52	1.61	2.29	1.60	2.15	1.86	3.50	1.24	1.87	1.73
1d	2.90	1.94	2.29	1.25	2.69	1.44	3.92	1.00	3.00	1.81
1e	2.30	1.75	2.71	1.11	2.46	1.71	3.75	1.54	2.51	1.77
1f	2.08	1.62	2.43	.98	2.08	1.44	3.83	1.12	2.31	1.64
2a	3.02	1.58	3.83	1.60	3.31	1.03	3.75	.87	3.15	1.45
2b	3.00	1.41	3.17	1.47	3.00	1.15	3.67	.65	3.09	1.31
2c	1.72	1.51	3.14	1.46	1.69	1.11	3.00	1.13	1.88	1.47
2d	1.52	1.60	2.43	.98	1.54	.88	2.91	1.45	1.69	1.56
2e	1.48	1.54	2.43	.98	1.46	1.33	3.00	1.04	1.67	1.53
3a	2.03	1.53	3.14	1.35	3.08	1.24	3.17	1.19	2.32	1.52
3b	2.27	1.37	2.29	1.50	2.31	1.25	2.83	1.03	2.35	1.31
3c	2.08	1.61	2.29	1.60	1.69	1.32	1.92	1.24	2.00	1.52
3d	1.15	1.16	2.00	1.83	1.23	1.09	1.73	1.27	1.24	1.17
3e	2.24	1.53	2.29	1.60	2.15	1.34	1.67	1.23	2.15	1.47
3f	1.02	1.16	1.86	1.57	1.54	1.20	1.50	1.38	1.15	1.20
4a	3.29	1.39	4.00	1.16	3.54	1.33	3.42	.67	3.34	1.30
4b	2.60	1.49	3.00	1.16	2.54	1.45	3.17	.58	2.67	1.40
4c	2.92	1.54	3.71	.95	2.33	1.30	3.17	.72	2.88	1.44
4d	1.48	1.35	2.29	1.16	1.70	1.31	1.50	1.09	1.51	1.30
4e	2.82	1.47	2.71	.98	2.15	1.46	3.09	1.38	2.75	1.46

Table 3 presents the combined data regarding the 22 issues listed by degree of challenge, beginning with the most critical challenge and ending with the least critical.

Table 3
Combined rank order of issue ratings

Rank	Issue	Code	Mean
1	faculty lack time to implement S-L	4a	3.34
2	lack of time in preservice curriculum	2a	3.15
3	faculty lack time to plan	2b	3.09
4	lack of alignment with institutional faculty roles and rewards	1d	3.00
5	faculty unprepared to use S-L as a teaching method	4c	2.88
6	other faculty not interested in S-L	4e	2.75
7	faculty unprepared to develop long-term partnerships	4c	2.67
8	lack of funds	1a	2.64
9	lack of alignment of S-L with institution/dept. priorities	1e	2.51
10	difficulty communicating with K-12 teachers/ agency staff	3b	2.35
11	transportation difficulties	3a	2.32
12	lack of sustained professional development opportunities	1f	2.31
13	difficulty locating K-12 teachers interested in S-L	3e	2.15
14	lack of successful K-12 S-L sites	3c	2.00
15	lack of S-L curriculum	2c	1.88
16	lack of administrative support	1c	1.87
17	difficulty aligning S-L with state/nat. teacher ed standards	2d	1.69
18	difficulty linking S-L with other ed reform initiatives	2e	1.67
19	lack of student interest in S-L	4e	1.51
20	liability/safety concerns	1b	1.38
21	addition of S-L detrimental to K-12-teacher ed partnerships	3d	1.24
22	lack of S-L projects app. For K-12& teacher ed students	3f	1.15

Differences in mean ratings among the four groups

The four groups that were surveyed had similar perceptions regarding the degree to which each of the 22 issues was a challenge to the successful use of service-learning in preservice teacher education. Two or more groups had statistically significant differences between their mean ratings of issues in only 19 of the total 132 item comparisons (14%). These items are presented below as differences of item ratings between the following groups: 1) service-learning teacher educators and non-service-learning teacher educators; 2) service-learning teacher educators and state department of education service-learning coordinators; 3) education deans and state department of education service-learning coordinators; 4) state department of education service-learning coordinators and non-service-learning teacher educators;

and 5) education deans and non-service-learning teacher educators. There were no statistically significant differences for item ratings between any other groups.

Service-learning teacher educators (SLTES) and non-service-learning teacher educators (NSLTE)

These groups ratings differed significantly on one item. This was 2c, lack of service-learning curriculum, which the NSLTE (M=3.14, SD=1.46) rated as a much more critical challenge than did the SLTE (M=1.72, SD=1.51). The difference between these mean ratings was -1.42(p<.05).

Service-learning teacher educators (SLTE) and state department of education service-learning coordinators (SDESLC)

These groups ratings differed significantly on seven of the 22 items, with the SDESLC rating each of these issues as more challenging than did the SLTE. Table 4 presents these results.

Table 4
Comparison of SDESLC and SLTE data

Issue code	Issue	SDESLC		SLTE		Diff.
		M	SD	M	SD	
1c	lack of admin. support	3.50	1.24	1.52	1.61	-1.98***
1e	lack of alignment with inst. priorities	3.75	1.54	2.30	1.75	-1.45**
1f	lack of sustained prof. dev. opp. 3.83	1.12		2.08	1.62	-1.75***
2a	lack of time in preservice curr. 3.75	.87		3.02	1.58	-.73*
2c	lack of SL curricula	3.00	1.13	1.72	1.51	-1.28**
2e	diff. linking SL with ed reform init.	3.00	1.04	1.48	1.54	-1.52**
3a	transportation difficulties	3.17	1.19	2.03	1.53	-1.14*

Note: *=p<.05; **=p<.01; ***=p<.0001

State department of education service-learning coordinators (SDESLC) and education deans (ED)

These groups ratings also differed significantly on seven of the 22 items, with the SDESLC rating each item as more challenging than did the Eds. Table 5 presents these results.

Table 5
Comparison of SDESLC and ED data

Issue code	Issue	SDESLC		ED		Diff.
		M	SD	M	SD	
1d	lack of alignment with fac. roles 3.92	1.00		2.69	1.44	-1.23*
1e	lack of alignment with inst. priorities	3.75	1.54	2.46	1.71	-1.29*
1f	lack of sustained prof. dev. opp. 3.83	1.12		2.08	1.44	-1.75**
2b	lack of time to plan SL projects 3.67	.65		3.00	1.15	-.67*
2c	lack of SL curricula	3.00	1.13	1.69	1.11	-1.31**
2d	diff. align. SL with teacher ed stand.	2.91	1.45	1.54	.88	-1.37**
2e	diff. linking SL with ed reform init.	3.00	1.04	1.46	1.33	-1.54**

Note: *= $p < .05$; **= $p < .01$

State department of education service-learning coordinators (SDESLC) and non-service-learning teacher educators (NSLTE)

These groups mean ratings differed significantly on two items, with the SDESLC rating these two issues as more challenging than did the NSLTE. The first item was 1d-lack of alignment with institutional faculty roles and rewards (SDESLC M 3.93, SD 1.00) (NSLTE M 2.29, SD 1.25). The difference between these ratings was -1.64 ($p < .01$). The second item was 1f-lack of sustained professional development opportunities (SDESLC M 3.83, SD 1.12) (NSLTE M 2.43, SD .98). The difference between these ratings was -1.40 ($p < .01$).

Education deans (ED) and non-service-learning teacher educators (NSLTE)

These two groups mean ratings also differed significantly on two items, with the NSLTE rating each of them more challenging than did the Eds. The first item was 2c- lack of service-learning curriculum (NSLTE M 3.14, SD1.46) (ED M 1.69, SD1.11). The difference between these mean ratings was -1.45 ($p < .05$). The second item was 4c-faculty unprepared to use service-learning as a teaching method (NSLTE M 3.71, SD.95) (ED M 2.33, SD1.30). The difference between these mean ratings is -1.38 ($p < .05$).

Summary

The SDESLC ratings were involved in 16 or the 19 instances of significant differences; in each case they rated the challenge involved as more critical than did the other group. Four of the cases of significant difference involved item 2c-lack of service-learning curriculum, and three cases involved item 1f-lack of sustained professional development opportunities.

Differences in mean ratings between participants from public and private institutions

The 55 SLTE, ED, and NSLTE from public institutions mean ratings' differed significantly from the mean ratings of their 52 counterparts from private institutions on one of the 22 survey items; 1e-lack of alignment of service-learning with institutional and/or department priorities. Those from public institutions rated this issue as more challenging (M=2.61, SD=1.79) than did those from private institutions (M=1.62, SD=1.79). The difference between these two means was $-.992$ ($p < .05$).

Differences in mean ratings between male and female participants

These groups' ratings differed significantly on one of the 22 items, 2b-lack of time to plan service-learning projects (Male M =2.79, SD=1.23) (Female M= 3.30, SD=1.27). The difference between these two mean ratings was $-.51(p<.05)$ with females rating this item as more challenging than males.

Differences in mean ratings between tenured and non-tenured service-learning teacher educators

These groups' ratings differed significantly on two of the 22 items. The first item was 2d-difficulty aligning service-learning with state and national teacher education standards (tenured M= 2.19, SD=1.70) (non-tenured M=1.16, SD=1.47). The difference between these ratings was $-1.03(p<.05)$ with tenured service-learning faculty rating this item as more challenging than did non-tenured faculty. The second item was 1e- lack of alignment of service-learning with institutional and/or departmental priorities (tenured M= 2.08, SD= 1.65) (non-tenured M=3.16, SD=1.43). The difference between these mean ratings was $-1.08(p<.05)$ with non-tenured service-learning faculty rating this item as more challenging than did tenured service-learning faculty.

Additional challenges described by survey participants

The final survey question asked participants to describe any challenges they faced to the use of service-learning in preservice teacher education that were not included elsewhere in the survey. A total of 26 participants (21% of all participants) described one or more of these challenges (total challenges=31). Eight of the challenges related to institutional issues, nine to curricular issues, eight to K-12 and community issues, and six to faculty and student issues. The challenges are organized below by participant group.

Service-learning teacher educators (SLTE)

The SLTE provided 14 challenges not included elsewhere in the survey. These challenges were contributed by 14 different individuals (one per person).

1. Difficulty establishing service-learning infrastructure in the school of education.
2. Too many service-learning projects going on at one time with no one to coordinate them.
3. Difficulty creating a university-wide, coordinated service-learning program.

4. Difficulty monitoring school and community sites.
5. Difficulty integrating service-learning into all teacher education courses.
6. Difficulty balancing service-learning activities with her main content area focus(special education).
7. The abstractness of content area disciplines makes it difficult for Arts and Sciences faculty to integrate an applied approach to learning such as service-learning.
8. Burnout of preservice teachers involved in service-learning.
9. Preservice teachers don't see service-learning as part of the role of the teacher.
10. Teacher education faculty turnover(new faculty aren't aware of service-learning).
11. Lack of a service-learning coordinator in the College of Education.
12. Difficulty developing service-learning connections with social work and urban affairs departments.
13. Lack of effective methods to assess service-learning outcomes that aren't as time consuming as responding to student journal entries.
14. Difficulty clarifying for faculty that service-learning can be integrated throughout courses to address many standards, rather than being an add-on.

Non-service-learning teacher educators (NSLTE)

NSLTE provided four challenges(two individuals contributed two challenges each). Although the NSLTE described these challenges as distinct from the 22 issues included in the survey, the challenges do appear to be very similar to survey issues.

1. Lack of service-learning sites in K-12 schools and the larger community.
2. Transportation difficulties in a rural area.
3. Lack of time in the teacher education curriculum.
4. Difficulty aligning service-learning with teacher education standards.

Education deans (ED)

Five ED provided additional challenges (one challenge per individual).

1. Large number of preservice teachers in a low population rural area makes finding service-learning placements difficult.

2. Lack of alignment with existing coursework (lack of available credits).
3. Difficulty reaching agreement of a definition of service-learning.
4. Perception that service-learning is a form of slavery.
5. Lack of research-based evidence of academic effectiveness of service-learning in teacher education programs.

State department of education service-learning coordinators (SDESLC)

Five SDESLC described challenges not included in the survey. These eight challenges are listed below with the number of SDESLC who mentioned each challenge in parentheses.

1. Difficulty bringing together K-12 and higher education (3).
2. Lack of coordination between K-12 and higher education Learn and Serve Grantees (1).
3. Difficulty integrating service-learning with state education reform policy (1).
4. Lack of support for faculty collaboration (1).
5. Lack of information on how to assess and grade service-learning (1).
6. Parent concerns and involvement (1).
7. Lack of sustained partnerships between teacher education programs and the state department of education (1).
8. Not able to give much time to service-learning at the state department of education due to other program responsibilities (1).

Interview Data

The 30 interviews focused on specific successful strategies used by teacher educators, education deans, and others to resolve or minimize the challenges identified in the survey. We present these 155 strategies organized by challenge, although in some cases the same strategy has been used to address two or more of these challenges. In cases in which more than one interviewee reported using a strategy successfully the number of these individuals is included in parentheses following the strategy. Following this we present interviewees advice to teacher educators new to service-learning.

Challenge 1: Faculty lack time necessary to implement service-learning.

Strategies:

1. Begin service-learning activities with a small pilot project; add-on to this gradually so that the work and stress level never becomes overwhelming. (16)
2. Establish a campus-wide service-learning center. Hire a coordinator who works with faculty to set up and monitor service-learning placements, and will go into any course to do “service-learning 101”. The Center can also provide stipends for faculty service-learning development and syllabus revision. Another approach is to set up a College of Education service-learning Field Placement Coordinator, Fund with grants initially, then institutionalize. (7)
3. Establish a service-learning community advisory board. Board members are given associate faculty status and supervise and evaluate preservice teachers at service-learning sites. (Example: a director of a homeless shelter becomes an adjunct faculty member-volunteer or paid.) (6)
4. Arrange for teaching assistants, work-study students, AmeriCorp members, or VISTAS to set up and monitor service-learning sites. Use grant funds to support them. (4)
5. Structure the faculty reward system so that adequate work load is provided to support the time and effort necessary to employ service-learning as a pedagogy. (3)
6. Work with faculty to have the integration of service-learning included as a yearly department or college goal, this will justify faculty spending more time focused in this area and less time on other issues.(3)
7. Give students (teacher education and K-12) the opportunity to locate and arrange their own service-learning projects. Also allow them to work in teams during class time to resolve problems related to their service-learning project. Faculty need to provide service-learning preparation, guidance, and supervision. (3)
8. Faculty plan and implement multicourse or multidisciplinary service-learning projects in conjunction with other faculty members. This reduces the time and work required of any one faculty member. (2)
9. Service-learning faculty only teach multiple sections of one course. This allows them more time to focus on the service-learning components of this course since they have fewer courses to prepare to teach.
10. Team-teach service-learning courses and share service-learning responsibilities.

Challenge two: Lack of time in the preservice teacher education curriculum.

Strategies:

1. Bring together K-12 service-learning cooperating teachers and teacher education faculty to engage in a curriculum audit. Focus on what they want preservice teachers to be able to know and do, and methods for achieving these goals. Distinguish between what is essential for them to know and be able to do, and what would be nice but not crucial. Cooperating teachers often have good ideas regarding how service-learning activities can be used to achieve other goals of the teacher education

program. Have teacher education faculty visit K-12 schools in the role of learners to reconceptualize what teachers really need to know. They need to see what the best schools are doing now.

2. Have teacher education faculty engage in low-threat service-learning activities themselves to see how service-learning can be used to achieve a variety of program goals. (2)
3. Require student teachers to create a written service-learning action plan for use in student teaching placement; encourage its' implementation. Require either service-learning or an action research project during student teaching. If cooperating teachers will not allow the student teacher to do service-learning students should find another teacher in the same school, or in a nearby school who will support their service-learning use, while retaining the initial student teaching placement. (5)
4. Integrate the various elements of service-learning throughout a series of courses so that no one course gets overloaded with service-learning. For example, teach needs assessment in intro to reading course, design a service-learning action plan in a methods course, create a service-learning assessment plan as a part of the assessment course, and implement service-learning in student teaching. (4)
5. Make service-learning part of a voluntary, extra program that does not compete for time with any of the required courses. Offer a variety of different levels and types of involvement in service, ranging from one-shot community service to year-long academic service-learning. This could be a separate, elective service-learning course, an elective, separate section of a required course, or an optional, weekend add-on. Integrate into regular courses over time by using positive student feedback to convince faculty of the value of service-learning. Students need many choices. (2)
6. Integrate service-learning experience into the first course in teacher education program, usually a survey course. Service-learning can be used to achieve many existing course goals. This gets students involved with service-learning early in their teacher preparation. Then teach service-learning as a pedagogy in methods courses, especially social studies as a way to enhance citizenship. (5)
7. The key is to have enough knowledge of service-learning, flexibility, and a positive attitude so you can see opportunities to use service-learning as a teaching method in the same places where others see barriers. (9)
8. Work with faculty to help them shift from service-learning as an add-on to integrated use of service-learning. Help them make the transition in use of teaching styles from lecturer to facilitator. Begin with mission dialogues that address questions like "what does it mean to be a teacher?", "why do you teach?", "what are we trying to accomplish with our teaching?". (3)
9. Start by placing service-learning in existing practicum courses. Just tweak them so they become service-learning. Pre-student classroom observation practicum can become a service-learning placement in a K-12 school. (2)
10. Use the fourth credit option, (+1) so students can choose which courses they wish to tie to their service-learning experiences. Let faculty control number of students per term who do 4th credit option with any one course. (2)
11. Bring in K-12 teachers for a year or two as visiting professors; look for service-learning expertise in choosing these people. (4)
12. Build the entire class around service-learning(whole course becomes a summer school for exceptional needs kids.) Align all service with course objectives.

13. Align service-learning activities with NCATE and state standards for teacher preparation. This takes time but can clearly demonstrate that service-learning is central to achievement of program goals and is not an add-on. (6)
14. Develop service-learning projects that run over two courses, in two consecutive semesters.
15. Work with NSLTEP, the National Service-Learning Clearinghouse at the University of Minnesota, or the campus service-learning coordinator to obtain syllabi from other institutions that demonstrate how others have found space in their teacher education program for service-learning. (3)

Challenge three: Faculty lack time to plan

Strategies:

1. Support a group of faculty to leave campus to participate in a conference or workshop on service-learning in teacher education. This gives them time away from their busy routine to think and plan together regarding their use of service-learning. (2)
2. Conduct a workshop on service-learning for K-12 cooperating teachers, teacher education faculty, and community partners since there isn't time in faculty meetings to do in-depth service-learning planning. (5)
3. Focus on service-learning integration at times when faculty need to engage in program redesign anyway, such as for NCATE accreditation. This is a natural opening. It is more efficient to have faculty meet together and plan as a whole group for service-learning than to have each one do it individually. (2)
4. Use grant funds to buy a course release for faculty who are beginning with service-learning and/or provide stipends to faculty for syllabus redesign. These stipends do not need to be large sums (\$500 is enough). Obtain funds from the institution's professional development fund and/or external sources. (5)
5. Faculty at some institutions (especially religious ones) find time for service-learning because it is so closely tied to their mission, and because they are personally committed to service-learning. Preparation and use of service-learning become a habit for them. Lack of time is a pseudo-challenge faculty use if they don't want to engage in service-learning. (8)

Challenge four: Lack of alignment of service-learning with institutional roles and rewards

Strategies:

1. Form a school, department, or college of education-wide service-learning committee that promotes service-learning by publicizing service-learning successes, seeks grants and internal funds, provides recognition for service-learning faculty and students, educates faculty and administration about service-learning, and advocates for tenure and promotion policies that reward service-learning scholarship, teaching, and service. Need to create a critical mass of influential faculty. (6)

2. Encourage faculty to engage in research and other scholarship focused on their service-learning teaching. Build a professional life that integrates teaching, research, and service around service-learning. (4)
3. At some institutions, writing and administering grants pertaining to service-learning can be counted as scholarship or service in support of tenure and promotion.
4. Focus on creating campus-wide service-learning initiatives; this will speed up the process of changing tenure and promotion policies to support use of service-learning.
5. Convince the Dean and/or department chair to give public recognition and salary rewards to faculty involved with service-learning by showing them how service-learning can be a sound teaching method that addresses the institutional mission and course goals. (4)
6. Establish a regional consortium of service-learning faculty and students; create a forum for faculty to publish and present research and other scholarship.
7. Specifically include service-learning in the faculty evaluation process (link to social justice, working with the community, or other core goals.)
8. Get positive media coverage and other publicity for school of education service-learning efforts. Have celebrations and invite the mayor, governor, and media. Universities are more likely to institutionalize programs that have received this kind of publicity. (2)
9. Gain community support for service-learning by offering service-learning scholarships to the university for students from neighborhood schools. Link this to high parental involvement in school/university partnerships.
10. Encourage faculty to apply for service-learning Fellowships and other awards from the state Campus Compact or foundations.

Challenge five: Faculty are unprepared to use service-learning as a teaching method

Strategies:

1. Invite teacher education faculty to attend or participate in service-learning training or courses offered for K-12 teachers and encourage the K-12 teachers to invite teacher education faculty to visit their classrooms to see service-learning in use. (2)
2. Enlist faculty to serve as consulting experts on service-learning, either within their discipline, or as a general teaching method. This can motivate them to learn about service-learning in order to be able to consult successfully. This can get around faculty unwillingness to admit they are not knowledgeable about service-learning. (2)
3. Faculty who are experienced with service-learning can mentor those new to it. Administrators can also mentor other administrators. (9)
4. Consider knowledge of service-learning and willingness to learn about service-learning as hiring criteria when bringing in new faculty. Must be sure to get new faculty and administrators up to speed quickly on service-learning. Make service-learning preparation a required part of new faculty induction program. (3)

5. Invite community agency representatives to campus for a service-learning fair at which they present their organizations mission and needs, and teacher education faculty present an introduction to service-learning lesson for them. Invite faculty new to service-learning to attend to hear about community organizations; they will also learn about service-learning.
6. Incorporate faculty new to service-learning into service-learning grant proposals. Include both education faculty and faculty from other disciplines in order to gain wider campus visibility and support. (4)
7. Convince the Dean or department chair, or the department to mandate use of service-learning in specific courses.
8. Some faculty are already doing service-learning and they don't realize it. Educate them about the theory and practice of service-learning. (4)
9. Work with Campus Compact in your state to obtain faculty development grants and other funds, as well as training for teacher educators to use service-learning. (2)
10. Provide faculty with readings on service-learning and set up a resource area in the library for service-learning materials. (4)
11. Work with state and national service-learning and teacher education organizations (NYLC, AACTE, ATE, AERA) to gain support for service-learning such as publications, grant funds, and conference presentation opportunities. Support faculty new to service-learning to attend these organizations' state and national conferences. (3)
12. Encourage teacher educators and preservice teachers to learn about service-learning by accessing web sites, then by communicating with each other about service-learning projects they have done by email and a service-learning listserv. (3)
13. Suggest that teacher education faculty start with very small steps towards the use of service-learning (like adding a reflection component to a lecture or lab assignment). See service-learning use on a continuum from no use to very high-quality; and accept that use of service-learning is a continually developing process. (7)
14. Establish a service-learning advisory committee to develop a service-learning integration plan for the department, school, or college; plan and conduct service-learning professional development sessions for faculty; provide faculty new to service-learning with mentor support and reflection sessions; and publish a service-learning newsletter with suggestions for high-quality service-learning.
15. Create an endowed chair for service-learning and an endowed service-learning research fund to support course development and research.
16. Encourage faculty to engage in research on service-learning impacts on preservice teachers, K-12 students, and communities. (6)
17. Obtain service-learning professional development support from experienced service-learning faculty from other institutions or the National Service-Learning in Teacher Education Partnership. (4)

18. Encourage faculty new to service-learning to work with the campus service-learning center or office of cooperative education. The work study office could also provide students who can gather service-learning resources for faculty.
19. Arrange for preservice teachers to conduct professional development sessions on service-learning for teacher education faculty.

Challenge six: Other faculty not interested in service-learning.

Strategies:

1. Start small and slowly and work one-on-one with colleagues who exhibit receptivity toward the concept of service-learning. The best service-learning faculty are self-directed learners who will pick it up on their own if given a little support such as sending them to a conference. (3)
2. Develop opportunities through workshops and meetings for faculty to get excited about service-learning and think "it is their thing" - if they are interested in civic education, for example, demonstrate how service-learning fosters those outcomes. (2)
3. Create affinity among faculty interested in service-learning through meetings, listserves and other formal and informal networks. This will reduce their feelings of isolation and help motivate them to continue to improve their service-learning practice. (2)
4. Help faculty re-define their efforts as service-learning. Some faculty engage students in forms of experiential learning that include both a service component and reflection focused on learning outcomes. Help them understand the framework of service-learning and how their teaching fits within it. (2)
5. Provide interested faculty with development grants to revise their course syllabi to include service-learning. (5)
6. Provide recognition to service-learning faculty such as certificates, awards, pictures in newsletters, or recognition from the dean or university president. This recognition can come from a service-learning committee or the administration. (4)
7. Encourage individual K-12 teachers, schools, and/or school districts to approach teacher education programs or individual faculty with service-learning grant or partnership proposals, or to encourage them to teach their preservice teachers how to use service-learning as a pedagogy. (3)
8. Utilize college leaders; for example, if the provost thinks service-learning a good thing and mentions it frequently, faculty will recognize this support and move to action.
9. Share brochures on service-learning workshops with other faculty: especially the pre-conference workshops on service-learning in teacher education conducted at the AACTE and NYLC Annual Meetings. (3)
10. Highlight articles and resources that showcase service-learning efforts on *your* campus; for example, our campus was featured in the AACTE book on service-learning and teacher education and we shared that with colleagues. Publicize service-learning efforts and impacts at faculty meetings but don't push it too hard or you might create resistance. (2)

11. Develop a state-wide consortium to support service-learning in teacher education that includes the state teacher education organizations, the state department of education, and other groups such as the state Campus Compact. (2)
12. Develop service-learning as a theme at state AACTE or ATE annual meetings and other convenings of teacher educators. (3)
13. Use existing research to demonstrate that service-learning aligns with course content and prepares teachers to meet state and national standards in new ways. Help faculty tie service-learning to theories of education such as brain-based learning, and John Dewey's approach to experiential learning. (2)
14. Develop and nurture strong, trusting personal relationships between service-learning champions and other faculty. The service-learning champion must have trust and credibility, and be able to explain to other faculty how the use of service-learning will benefit them and their students. It is crucial to have at least one service-learning champion who is willing to go the extra mile for service-learning, especially in the beginning stages. (2)
15. Make a strong case to faculty explaining how use of service-learning is aligned with the school's mission and how it can support achievement of existing program goals. (2)
16. Recognize that many teacher educators are politically liberal but personally quite conservative; that they are pressured to meet standards, and are content oriented. It is ok for some faculty not to have an interest in service-learning. Trying to get them interested is a poor use of time and resources. Look for receptive faculty and work with them as opposed to trying to entice all faculty.
17. Have K-12 students, teachers and administrators present to faculty regarding their success and service-learning goals. Also, have recent teacher education program graduates who have used service-learning in their first years of teaching address faculty. (2)
18. Include non-service-learning faculty as content experts in service-learning advisory groups and grant proposals.
19. Service-learning faculty can offer to set up service-learning placements for new faculty. They can also help by sharing course materials, leading reflection sessions, and grading assessment measures for the faculty new to service-learning. New faculty can transition into these roles the following semester.
20. Conduct a survey of K-12 principals in your area to find out how many would hire a new teacher with experience in service-learning over another candidate with similar credentials who lacked service-learning knowledge and experience. Publicize positive results with students and faculty.

Challenge seven: Faculty are unprepared to develop long-term partnerships

Strategies

1. Integrate service-learning into on-going K-12 partnerships and professional development school programs. (3)
2. Use the campus service-learning center to develop partnerships with local community agencies and with schools

3. Seek grants to support the time and effort required to arrange logistics and nurture partnerships with K-12 schools and other community agencies.
4. Identify and share existing partnerships with colleagues; for example, partnerships with K-12 schools focused solely on a reading practicum could be enhanced by adding a service-learning component.
5. Conduct workshops on service-learning that include teacher education faculty and K-12 teachers working together in teams (including adjuncts and student teaching supervisors - provide substitutes for the K-12 teachers) (2)
6. Develop a tool kit for higher education and K-12 faculty to use to create their own partnership mission statement and goals.
7. Consider your partner's agenda first - go with an attitude of let's work together to meet both our needs; not just "we'll fix you" or "here's what we need."

Challenge eight: Lack of funds

Strategies:

1. Use work study students to assist with a lot of the coordinating of service-learning placement logistics. (3)
2. Ask K-12 and community agency partners to include the teacher education program in their grant proposals to support joint service-learning projects. The best programs are supported by higher education, K-12 schools, and the community because they benefit all three of these constituencies.
3. Get involved in other collaborative partnerships that access non-service-learning grant funds to support compatible service-learning experiences. For example, school-to-work, contextual teaching and learning, America Reads, and school violence prevention monies.(2)
4. Seek grants from private foundations to engage in community development through the use of service-learning.
5. Have teacher education students engage in grant writing and soliciting funds from alumni as their service-learning project. This could be tied to a component of a course that focused on grant writing and educational reform.
6. Service-learning can be done without any additional funds, especially when it is fully integrated. Lack of funds is often an excuse for those who have another reason not to do service-learning. (4)
7. Align service-learning with departmental priorities and funded professional development.
8. Apply for funds from the Corporation for National Service. (5)
9. Provide preservice teachers with the opportunity to apply for mini-grants to support service-learning (require cash or in-kind match). (3)

10. Smaller institutions of higher education can partner with nearby research universities who can handle grants more easily; this can also help gain leverage for receiving funds.
11. Work with the campus development office to identify potential funders. There is a lot of money out there available to support service-learning. Set a goal of writing one grant proposal per week.
12. Re-direct funds already designated for other purposes that service-learning can help achieve, such as increasing minority enrollment or helping ESL students pass language tests.

Challenge nine: Lack of alignment with institutional/department priorities

Strategies:

1. When the teacher education program or departments revise their curriculum infuse service-learning into foundations and other courses. (3)
2. Conduct a self-study and use the results to encourage departments to increase student achievement of expected outcomes.
3. The university mission talks about civic outcomes - re-examine the institution's and teacher education program's mission and foundational principles to determine the appropriateness of service-learning use. Focus first on creating an innovative, high-quality teacher education program aligned with your mission and principles; secondly, examine this program to find links to required standards. Doing initial program design by focusing on meeting standards helps develop a mediocre program.
4. Incorporate a model where student teachers develop service-learning activities for use with their K-12 students. This works well when the service-learning is related to integrated, interdisciplinary semester-long units. (5)
5. Have preservice teachers who have had positive service-learning experiences present to faculty regarding how service-learning has helped them achieve existing department goals. (4)
6. Show faculty specifically how service-learning can address state and national teacher education standards. (4)
7. Align service-learning with promotion and tenure process by creating a system in which service-learning is recognized as a form of scholarship, as well as a teaching method and type of service. (3)
8. Revise the institution's mission and/or education departments goals to specifically include service-learning. (2)
9. The university president can mandate the use of service-learning and strongly support faculty who engage in service-learning through additional resources and the promotion and tenure process.

Challenge ten: Difficulty communicating with K-12 teachers and/or community organization staff

Strategies:

1. Work with charter and alternative schools that understand different teaching methods and the necessity of community partnerships. These schools often place more emphasis on collaborative

projects and provide teachers with flexible schedules which allow them to communicate more easily. (2)

2. Take advantage of personal relationships you might have with teachers and school personnel to develop partnerships. (6)
3. Begin the project by conducting a meeting of all cooperating teachers, principals, and teacher education faculty in which the concept of service-learning and the mutual benefits are explained clearly.
4. Work from existing partnerships as opposed to starting new ones. Create more strategic relationships with a few sites. (2)
5. Team teach teacher education courses with K-12 or community agency personnel. If this isn't possible, invite these people in as guest speakers.
6. Make use of community service center on campus to assist in communicating with K-12 schools and community agencies. (5)
7. Place a graduate assistant or AmeriCorps/VISTA member in schools as a service-learning coordinator. (3)
8. Partner with graduates of your teacher education program with whom you have an established positive relationship. (2)
9. Use e-mail and home phone numbers to communicate with K-12 teachers. Determine when each teacher has a planning period or other break in their schedule when they can take a phone call. (2)
10. Place preservice teachers in sites in teams of 2-4. This facilitates easier communication and transportation because there are fewer sites and teachers to work with. (3)

Challenge 11: Transportation and liability issues

Strategies:

1. Have a lawyer in-service faculty, preservice teachers, k-12 staff, and community partners regarding ways to minimize liability issues.
2. Use college vans to transport preservice teachers and K-12 students. (3)
3. Have preservice teachers drive themselves to service-learning sites. Have them go in groups. Be sure all drivers have valid licenses and insurance. (6)
4. Develop service-learning projects at K-12 schools and community agency sites within walking distance of campus. (5)
5. Rent a school bus or van.
6. Have students approach car dealers to request a short-term or permanent donation of a van.

7. Be willing to violate university transportation policies if necessary when there is a clear benefit for K-12 and preservice teacher students. (3)
8. Be sure to follow school district procedures and get signed parent permission forms before transporting K-12 students to and from service-learning sites. (5)
9. Revise the university insurance policy to specifically cover students engaged in transporting students to service-learning activities that are a part of the curriculum.
10. Have parents, aides, AmeriCorps members, or preservice teachers drive K-12 students. Be sure all drivers have valid drivers licenses and the necessary insurance.

Challenge twelve: Lack of sustained professional development opportunities

None of the interviewees mentioned any strategies related to this challenge.

Challenge thirteen: Difficulty locating K-12 teachers interested in service-learning

Strategies:

1. Develop partnerships with graduates your own department who teach in nearby K-12 schools. (3)
2. Participate (offer a workshop on service-learning) in a state-wide K-12 service-learning conference and meet K-12 teachers that are interested in service-learning.
3. Use the university campus community service center to identify K-12 teachers who may be interested in partnerships involving service-learning.
4. Work with local school districts by offering to assist in conducting service-learning workshops. Develop positive working relationships with the teachers that attend those workshops. Offer mini-grants for service-learning implementation to teachers who successfully complete the workshops. (4)
5. Contact the state department of education and/or local school district service-learning, school-to-work, or applied learning representatives to help locate K-12 teachers and schools interested in service-learning. (2)
6. Lobby local school district superintendents and principals to be strong advocates for infusing service-learning and to consider service-learning experience in hiring decisions for new teachers.
7. Raise your level of expectations for student teacher performance. This will result in more teachers wanting to work with your students.
8. Prepare full-time teacher education faculty or adjunct faculty who engage in supervision of student teaching to be knowledgeable regarding service-learning. (2)
9. "Talk-up" service-learning whenever you are with teachers; one-on-one ad hoc service-learning instruction can get them interested.
10. Place student teachers with cooperating teachers who do not know much about service-learning but are open to working with student teachers to do it. Some of these placements are the most successful

because student teachers take a lead role in implementing service-learning and preparing experienced teachers to use service-learning. (2)

11. Offer pre-service teachers as a "free" resource for K-12 teachers who want to get started with service-learning. The preservice teachers can set up project logistics, supervise students, lead reflection sessions, and provide resources for the teacher.
12. Contact the National Service-Learning Clearinghouse at the University of Minnesota for a list of teachers in your area interested in partnering with teacher education institutions.
13. Work to develop 9 - 10 lead service-learning teachers - each in a different professional development school
14. Network with youth service coordinators in city government or community organizations such as Campfire and YMCA regarding K-12 teachers they know who are interested in service-learning. (3)
15. Many placements can be found by word of mouth and inside connections (friends and friends of friends). (2)
16. Place students in teams of 2-4 to reduce the number of placements needed. (2)

Challenge fourteen: Lack of successful K-12 service-learning sites

Strategies:

No strategies were mentioned regarding this challenge, however, many of the strategies listed under challenge thirteen above also apply to this challenge.

Challenge fifteen: Lack of service-learning curriculum

Strategies:

1. This was not a problem for most faculty at our institution because they learned how to use the service-learning process which is a method to design your own curriculum. An essential component of service-learning is that the service-learning project must be responsive to the unique needs of the students and community involved, so curriculum can't be prescribed. Need to teach people the design process. (3)
2. This is not a problem because there is a lot of service-learning curriculum available for use in a variety of content areas in K-12 education. The real issue might be lack of access to curriculum. (2)
3. Access service-learning curriculum on the web. (2)
4. Connect faculty to curriculum in their discipline which has service-learning embedded in it, perhaps not even called service-learning (such as the ACT curriculum from the Constitutional Rights Foundation)- this will be more appealing to content methods faculty than the label service-learning. (2)
5. Seek out curriculum from the campus volunteer center or office of service-learning. (2)

6. We received K-12 and higher education service-learning curriculum from the National Service-Learning Clearinghouse at the University of Minnesota. (2)

Challenge sixteen: Lack of administrative support

Strategies:

No strategies were provided regarding this challenge.

Challenge seventeen: Difficulty aligning service-learning with state and national teacher education standards

Strategies:

1. This is not a problem because service-learning clearly fits with the state standard on preparing for effective citizenship. (2)
2. Our State K-12 graduation standards and teacher education student standards are very performance based and link well with service-learning. (3)
3. List specific standards addressed by service-learning activities in the course syllabus.
4. Many standards require the type of school-community connections that service-learning can develop.
5. Advocate for service-learning to be explicitly included in state and national teacher education standards. (4)
6. Start by conceptualizing a great program, then tie in standards. If you begin by creating program based on standards it will be mediocre.

Challenges eighteen through twenty-two:

No strategies were mentioned that directly related to these challenges. Some of the strategies described above address one or more of these challenges indirectly.

Advice to teacher educators new to service-learning

1. Start small. Set yourself up for success with a service-learning project that involves a small number of students. Focus on just one site, or one course, the first time, monitor your efforts, and celebrate progress. (21)
2. Find colleagues to work with; both in your department and from K-12 schools. Start a team (service-learning committee) and meet regularly. (14)
3. Engage in service-learning with the preservice teachers and K-12 students on a regular basis in order to really understand the benefits and issues associated with service-learning. Walk your talk with essential elements of service-learning incorporated into your teaching. (10)
4. Analyze the required teacher education curriculum and identify outcomes and courses where service-learning clearly fits. Don't make service-learning an add-on; it doesn't fit in every course. (6)

5. Work with campus service-learning champions such as the institutions' president, especially if they are active with Campus Compact. Conduct workshops for other faculty, K-12 educators, and other community members. Keep your Dean and department chair informed of all service-learning activities and invite them to observe and celebrate. (5)
6. Just do it! That's the best way to learn, by getting started. (4)
7. Obtain faculty buy-in by discussing how service-learning will help prepare better teachers. (2)
8. Make the service-learning personal; it must meet the needs of whoever uses it. Don't go about it cookbook style. (3)
9. Be sure to assess preservice teachers interests, and let them engage in service-learning related to these interests. (3)
10. Use a model in which student teachers need to develop service-learning projects that fit with the curriculum they are going to teach; and then be sure they actually use service-learning as a pedagogy during student teaching. Define the community to include service-learning done at the school site. (4)
11. Seek internal and external funding; publicize grants obtained to help other faculty to focus on service-learning. (2)
12. Interact with networks of other teacher educators involved with service-learning such as the AACTE Special Study Group on Service-learning and the National Service-Learning in Teacher Education Partnership. Participate in service-learning conferences such as NYLC and AACTE, and read service-learning publications. (3)
13. Do research on service-learning, write and publish articles, and present sessions at professional conferences such as AACTE, AERA, and NYLC. (2)
14. Talk with your campus service-learning and community service coordinators and faculty in other disciplines who are experienced with service-learning; especially senior faculty who can help with advice and support. (3)
15. Examine your institutional mission statement, program and course goals, and your personal philosophy of education to become very clear on why you are doing service-learning. (2)
16. Provide preservice teachers with a service-learning lesson plan format, sample lesson plans, and many examples of successful K-12 service-learning projects that can guide them through the entire service-learning process. (3)
17. Obtain three or four good articles on service-learning and share them with students, faculty, and administrators.
18. Have your Dean provide small service-learning incentives for faculty such as release time.
19. Bring in an outside service-learning consultant. (3)
20. Find K-12 teachers and teacher educators who are doing service-learning; observe their classes, talk with them and their students, and community partners.

21. Develop a continuum of service activities (from community service to academic service-learning). Develop long-term Professional Development School partnerships that include on-going service-learning projects.
22. Trust preservice teachers to do service-learning well; but maintain high standards, just because they are active doesn't mean they are learning.
23. Work collaboratively with your K-12 and community partners to create clear roles and responsibilities for all service-learning stakeholders.

DISCUSSION

This discussion will highlight results of the study that we believe are most important to advance the field of service-learning in teacher education. We first address results and issues regarding the challenges to service-learning integration; then discuss key points involving the strategies for success with service-learning. We conclude with limitations of this study and suggestions for future research.

Challenges

The three issues rated as the most critical challenges to the implementation of service-learning in preservice teacher education all relate to lack of time; either for teacher educators (4a and 2b) or in the preservice curriculum (2a). Six of the top ten most critical challenges relate directly to teacher education faculty (faculty lack time to implement S-L, 4a; faculty lack time to plan, 2b; lack of alignment of S-L with faculty roles and rewards, 1d; faculty unprepared to use S-L, 4c; other faculty not interested in S-L, 4e; and faculty unprepared to develop long-term partnerships, 4c). Only one of the top ten most critical challenges relates to K-12 and community issues (#10-difficulty communicating with K-12 teachers and community agency staff, 3b). All these challenges are similar to those cited by Bhaerman, Cordell, and Gomez (1998). Teacher education faculty identified issues that directly involve faculty as the most challenging and education deans and state department of education service-learning coordinators also saw these issues as important challenges.

We analyzed the challenge ratings using Zlotkowski's Service-Learning Conceptual Matrix. Challenges relating to pedagogical strategies and academic culture were rated as more critical than those involving community partners and values development. Five of the top ten challenges deal with the academic culture of the teacher education institution, three relate to pedagogical strategies, two involve community partners, and only one deals with values development. The additional challenges described by the survey participants also focused mostly on pedagogical strategies (11), and least on values development (4). This lack of concern with the values development quadrant may be due to several

reasons. Perhaps faculty haven't yet examined the values underlying their use of service-learning, such as citizenship education, multiculturalism, peace and justice issues, and ethical and personal development. Or perhaps they have examined their personal reasons for using service-learning but haven't yet attempted to infuse these explicitly into their teaching. As Zlotkowski notes, it is difficult to integrate a focus on these values while maintaining a discipline-specific base (Zlotkowski, 1998, p.84). A more optimistic hypothesis may be that faculty have examined their underlying rationales for service-learning use, have linked these to their institutions' mission, and are weaving these values into the content and process goals of their teacher preparation courses well enough to not experience any major obstacles in this area. Further research in this area would be helpful in clarifying this issue.

The lack of critical challenges related to community partners may also be due to a similar dynamic. Teacher educators may be so absorbed in the issues closest to them involving pedagogical strategies and their academic culture that they may not have the time to focus much attention on their community partners, consequently, they don't see community issues as pressing, by comparison. This doesn't mean there aren't serious problems and challenges occurring in the community aspects of their service-learning efforts. On the other hand, these results may indicate that teacher educators have examined community issues closely and have implemented practices that are working successfully. Again, further research will help shed light in this area.

The 31 additional challenges provided by the survey participants above can be grouped into five distinct themes. The first theme involves challenges that relate to a lack of understanding of how service-learning can be used as a teaching method to help teacher education course goals, and address state and national teacher education standards and reform initiatives (12 challenges). The second theme involves the difficulties in coordinating collaborative efforts among K-12 educators, teacher educators, other higher education faculty, and state department of education personnel (8 challenges). The third theme addresses issues related to a lack of resources and personnel focused on service-learning issues (4 challenges). The fourth theme pertains to difficulties locating and accessing K-12 and community service-learning sites, especially in rural areas (3 challenges). The fifth theme relates to a lack of knowledge of assessment measures and research-based outcomes of service-learning use in teacher education (3 challenges).

None of the educators surveyed identified reflection as a challenge to the use of service-learning, and only two mentioned assessment as an obstacle. Again, this may be because teacher educators have not advanced enough in their practice of service-learning to recognize these areas as needing improvement, or because, as successful teachers they grasp the importance of reflection and assessment to the success of service-learning and are effectively modeling these elements in their teaching. The same thing may be

occurring regarding the issue of aligning service-learning with state and national teacher education standards and other educational reform issues.

The similarity among the challenge ratings of the four groups surveyed is noteworthy. Ratings differed significantly in only 19 of the 132 comparisons made, and 16 of these differences involved the state department of education service-learning coordinators (SDESLC) rating an issue as more challenging than did another group. This may be due to the fact that most of the SDESLC do not have regular contact with preservice teacher education, teacher educators, or preservice teachers. Many of them noted this point in comments they added at the end of the survey.

Strategies for Success

Many of the strategies used by interviewees to deal with a particular obstacle to successful service-learning were similar to strategies described in the literature. Bringle and Hatcher(1996), Ward (1998), and Wittmer and Anderson (1994) offered ideas to help insure success with service-learning that compliment those provided by interviewees in this study. This study documents the fact that these strategies can be effective in preservice teacher education, as well as in K-12 schools and other disciplines in higher education.

Five themes emerged from our analysis of these strategies:

Theme One: Teacher educators can implement most of the strategies without needing to obtain external funds or even additional internal resources.

One hundred and two of the 155 strategies require no additional money to implement. Thirty-six of the 155 strategies involve seeking external grant funds, and 17 others require either additional internal funds or a shifting of internal resources. Many of the strategies that require additional funds relate to the challenge of preparing teacher educators to use service-learning (10) or the challenge of a lack of funds (6). Implementing the advice to teacher educators new to service-learning is also without direct financial cost in most cases. Only five of the 21 pieces of advice require additional money to put into practice.

Theme Two: Teacher educators initial use of service-learning should be on a small scale.

Whether the challenge is lack of faculty time to plan or implement service-learning, faculty being unprepared to use service-learning as a teaching method, attempting to interest other faculty in service-learning, or difficulty communicating with K-12 teachers, the interviewees recommended starting small, perhaps with a pilot project in order to have a positive initial experience with service-learning. Limiting the number of placement sites by placing students in groups, focusing on one course, one site, or one

faculty member at a time were strategies mentioned often. A key to success with this approach also includes monitoring your efforts, expanding when ready, and celebrating successes.

Theme Three: Teacher educators need to develop a clear understanding of the philosophy and practice of service-learning.

Many interviewees emphasized the importance of having a clear, deep understanding of what service-learning entails, why one is using it as a teaching method, and the type of outcomes that can reasonably be expected to result from its use. Teacher educators who comprehend the philosophy of service-learning, how it changes the traditional structures and processes of teaching and learning, and the dynamics of how this shift can result in greater growth and learning for students, as well as create deeper ties between schools, universities, and larger communities are more likely to be successful with their service-learning initiatives. It is not enough for a teacher educator to know how to do it, implementing the pedagogy successfully is an essential but insufficient approach to obtaining the full benefits of service-learning. Teacher educators who have this understanding are more likely to see opportunities to service-learning success where others see only barriers. This also requires flexibility, a commitment to integrating service-learning, and a positive attitude.

Theme Four: Collaboration is essential for success with service-learning.

The fourth theme involves the importance of developing and maintaining collaborative partnerships with other individuals and organizations. Many strategies that teacher educators report as having contributed to success with service-learning, especially in the areas of academic culture and community partnerships require enlisting the support of other likeminded individuals. This includes working with teacher education students to plan service-learning projects and set up K-12 and community placement sites. It involves joining forces with other faculty members and higher education administrators to insure the university provides the policies, infrastructure, and resources needed for success with service-learning. The necessity for collaboration is also expressed in strategies that require partnering with K-12 schools, community agencies, and other community members to assess needs, plan service projects that successfully address these needs, and fully integrate service with the teacher education curriculum. The ability to work well with a variety of other individuals and organizations appears to be essential for teacher educators who engage their students in service-learning activities.

Theme Five: The creation of supportive policies and infrastructure that align to support effective practice is necessary for success with service-learning.

The majority of strategies and advice are descriptions of specific practices teacher educators have used to make progress with service-learning. However, 43 of the strategies address the development of service-learning friendly policies at the university, school, and/or program level. Another 39 strategies deal with the creation of an infrastructure supportive of service-learning.

Policies such as including knowledge and experience with service-learning as a required qualification for new faculty and administrators can speed the integration of the service-learning, as can revising program or institutional goals to include service to the community or development of active citizens. Having structural elements such as a risk management plan that addresses service-learning and adequate work load for faculty who teach labor-intensive service-learning courses, in place will also promote more success with service-learning. Without policies and infrastructure support even faculty who engage in the most creative service-learning practices may feel like they are swimming upstream and burn-out on service-learning.

Limitations and Future Research

These five themes can help guide teacher educators in their use of service-learning but they need to be used while keeping in mind some of the limitations of this study. Both the survey and interview results presented in this study are self-report data. We have no supporting evidence from others sources that any of these strategies actually were successful in overcoming an obstacle to successful service-learning. Future research could include interviews with students, administrators, and K-12 and community partners, as well as observations of service-learning activities, and collection of artifacts such as syllabi, evaluation forms, university policy statements, and student journals. We also don't know which strategies will be most effective under any particular set of conditions, such as with rural colleges in small towns, or with service-learning integrated into foundations courses in small liberal arts colleges. Future researchers could delve more deeply into these questions and also examine other issues such as what types of service-learning course experiences result in the most optimal outcomes for preservice teachers, K-12 schools, and community organizations. Other studies could examine the sequence with which strategies for success should be implemented to achieve the most positive results for service-learning initiative.

CONCLUSION

This study provides an important contribution to the literature by presenting data regarding the perspectives of several groups of educators pertaining to challenges to the use of service-learning in preservice teacher education. Some of these challenges are similar to those identified by others as barriers to service-learning use in K-12 or higher education, including lack of time, an overcrowded curriculum, and lack of alignment of service-learning with faculty roles, rewards, and institutional priorities. Results of this research also include 155 strategies creative teacher educators have used to, from their perspective, overcome some of these challenges. The study provides evidence that teacher educators are able to devise and implement strategies that can surmount some of the barriers to the use of service-learning in preservice teacher education. This report also provides a rich source of ideas to stimulate the thinking and innovative powers of teacher educators grappling with obstacles to the use of service-learning.

Progressive teacher educators face a pair of daunting yet crucial tasks. New teachers must be prepared to function effectively in schools as they exist today and also be educated to take a leadership role in the improvement and reculturing of K-12 education to more fully meet the needs of individual students and resolve societal problems. One approach that can address both these needs is the integration of service-learning experiences into preservice teacher preparation programs. We hope that teacher educators examine the results of this study and use the strategies described here to stimulate their efforts to reculture teacher preparation on their campuses to facilitate successful service-learning outcomes. We agree with Zlotkowski's statement:

If one makes an effort to understand how one's institution works, does one's homework on faculty interests and resources, forms strategic alliances, and refuses to see obstacles as anything other than occasions for a change in tactics, one will make progress.

Although the integration of service-learning into teacher education programs takes a considerable investment of time and effort, the results we have seen in terms of benefits to the community, academic and personal gains for K-12 students, and the pedagogical growth in both preservice and experienced teachers make a commitment to service-learning very worthwhile.

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APPENDIX A

TEACHER EDUCATION FACULTY SERVICE-LEARNING SURVEY

This survey is part of a nationwide study examining challenges related to the incorporation of service-learning in preservice teacher education. Service-learning is defined as "school or community based service integrated in the academic curriculum." Examples of service-learning in teacher education include:

- preservice teachers in development courses complete child advocacy projects such as starting a support group for children of divorce
- as a part of a social studies methods course, preservice teachers work with children in need in community agencies such as Big Brothers/Big Sisters
- preservice teachers learn how to employ service-learning as a teaching method by coordinating service-learning projects during student teaching or other field experience placements.

Thank you for taking a few minutes to complete this survey!

PART I

1. Name _____

2. Institution _____ 3. Gender M F

4. Professional Status (circle all that describe your position)

- | | |
|------------------------|------------------------|
| A. tenured | E. assistant professor |
| B. non-tenured | F. instructor |
| C. full professor | G. adjunct faculty |
| D. associate professor | H. department chair |

5. Have you implemented any service-learning projects/activities in your preservice teacher education program? (circle one)

- | | | |
|-----------------------|-----|----|
| A. elementary program | yes | no |
| B. secondary program | yes | no |

6. Does your program include instruction/activities designed to prepare preservice teachers to use service-learning as a teaching method with their future K-12 students?

- | | | |
|-----------------------|-----|----|
| A. Elementary program | yes | no |
| B. secondary program | yes | no |

7. Number of years service-learning has been a part of your teacher education program

elementary program _____
secondary program _____

8. Which courses in your teacher education program have a service-learning component? (circle all that apply).

- A. Introduction to teaching
- B. Foundations

- C. Child and/or adolescent development
- D. General Methods
- E. Subject area methods. Which subject (s) ? _____
- F. Multicultural or human relations
- G. Pre-student teaching practicum placements
- H. Student teaching
- I. Separate service-learning course
- J. Independent study
- K. Research course or project
- L. Other (Please specify) _____

PART II

Below we have grouped issues that might be faced by teacher educators interested in service-learning into four general categories: 1) institutional issues, 2) curricular issues, 3) K-12 and community issues, and 4) faculty and student issues. Which of these issues challenged, hindered, or served as a disincentive to your use of service-learning in preservice teacher education? (circle a number to indicate the importance of each as a challenge, using the scale below).

1. INSTITUTIONAL ISSUES

challenge	not a challenge	1	slight challenge	2	3	moderate challenge	4	critical	5
a) lack of funds	0	1	2	3	4	5			
b) liability/safety concerns	0	1	2	3	4	5			
c) lack of administrative support	0	1	2	3	4	5			
d) lack of alignment with institutional faculty roles and rewards	0	1	2	3	4	5			
e) lack of alignment of service-learning with institutional and/or department priorities	0	1	2	3	4	5			
f) lack of sustained professional development opportunities	0	1	2	3	4	5			
g) other(specify) _____	0	1	2	3	4	5			

2. CURRICULAR ISSUES

not a challenge	slight challenge	moderate challenge	critical challenge
--------------------	---------------------	-----------------------	-----------------------

a) lack of time in preservice curriculum	0	1	2	3	4	5
b) lack of time to plan service-learning projects	0	1	2	3	4	5
c) lack of service-learning curricula	0	1	2	3	4	5
d) difficulty aligning service-learning with state/national teacher education standards	0	1	2	3	4	5
e) difficulty linking service-learning with other education reform initiatives.	0	1	2	3	4	5
f) other (specify) _____	0	1	2	3	4	5

3. K-12 and COMMUNITY ISSUES

	not a challenge		slight challenge		moderate challenge		critical challenge
a) transportation difficulties	0	1	2	3	4	5	
b) difficulty communicating with K-12 teachers and/or community agency staff	0	1	2	3	4	5	
c) lack of successful K-12 service-learning sites	0	1	2	3	4	5	
d) addition of service-learning detrimental to existing k-12 teacher ed. partnerships	0	1	2	3	4	5	
e) difficulty locating K-12 teachers interested in learning about service-learning	0	1	2	3	4	5	
f) lack of service projects appropriate for K-12 and teacher ed. students	0	1	2	3	4	5	
g) other (specify) _____	0	1	2	3	4	5	

4. FACULTY and STUDENT ISSUES

	not a challenge		slight challenge		moderate challenge		critical challenge
a) faculty lack time necessary to plan and implement service-learning	0	1	2	3	4	5	

b) faculty unprepared to develop necessary long-term partnerships	0	1	2	3	4	5
c) faculty unprepared to use service-learning as a teaching method	0	1	2	3	4	5
d) lack of student interest in service-learning	0	1	2	3	4	5
e) other faculty not interested in service-learning	0	1	2	3	4	5
f) other (specify) _____	0	1	2	3	4	5

5. OTHER CHALLENGES (Please briefly describe any other challenges not listed above).

Thank you for completing this survey. Please return the survey to:

Jeffrey Anderson
School of Education
Seattle University
900 Broadway
Seattle, WA 98122
phone: 206/296-5754
email: janderso@seattleu.edu

APPENDIX B

TEACHER EDUCATOR INTERVIEW PROTOCOL

The primary purpose of the interview is to obtain detailed information regarding strategies teacher educators and their institutions have used to overcome challenges to the use of service-learning. These phone interviews should take approximately 40 minutes each.

Steps in the Interview Process

- a. Review the teacher educator's survey to become familiar with their responses and identify specific items you wish to questions them about (see below).
2. At the beginning of the call ask for permission to audiotape the call for research purposes. Assure the teacher educator that he/she will remain anonymous. Explain the purposes of the study. After they agree to be audiotaped test the audiotape equipment to be sure it is functioning correctly.

Interview Questions

1. "Please tell me about some ways you are integrating service-learning into your teacher education program."
 - a. Follow-up probes: (only if necessary to get them talking)
 1. Which courses have a service-learning component?
 2. What are your goals for including service-learning?
 3. How many faculty are involved?

4. How do you assess learning and service outcomes?
2. Focus on challenges where there is a discrepancy between the overall mean rating and this particular teacher educator's low rating. (review the survey results).
6. Example: "Many teacher educators are challenged to find time in the curriculum for service-learning. You rated this item as only a slight challenge on your survey. How have you found time for service-learning in your teacher education curriculum?"
 - b. Repeat with each item that shows this discrepancy.
3. Focus on items the teacher educator rated as not a challenge or only a slight challenge.
 - a. Example: "You rated transportation difficulties as not being a challenge. What are some ways you deal with this issue to keep it from becoming a difficulty?"
4. Focus on items rated as critical challenges. All of the top ten most critical challenges should be addressed if they haven't yet been discussed.
5. Ask, "What is one piece of advice you would give to teacher educators interested in integrating service-learning into their program?"
6. Ask, "Are there any other strategies for success with service-learning that you have used that we haven't discussed? Is there anything else you'd like to mention?"