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Novice teachers' experiences of community service–learning

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Abstract

This study focuses on beginning teachers' experiences with a currently popular curriculum strategy in the US: community service–learning. To determine the personal and contextual factors influencing novice teachers' experiences, we surveyed over 300 early career teachers and interviewed 30 of the larger sample. The study provides evidence that some beginning teachers are willing to implement strategies they learned in their teacher education programs, and can do so successfully, in spite of being busy and unsupported. Results indicate that specific preparation features and school characteristics may play a large role in whether novice teachers implement service–learning activities in their class-rooms. © 1999 Elsevier Science Ltd. All rights reserved.

Keywords: Community service–learning; Teacher preparation

Frequently educators have bemoaned the fact that teacher education programs have little impact on novice teachers' practice, that beginning teachers are more likely to teach as they were taught in their own elementary school years (Feiman–Nemser & Buchmann, 1983; Zeichner & Tabachnick, 1981). The purpose of this study was to assess the impact of a central component of our teacher education programs – community service–learning – on novice teachers' practice. While our research findings may prove most useful for other teacher educators engaged in service–learning, we believe that the results are of value to all teacher educators who endeavor to influence the teaching practices of their graduates.

In response to growing social and environmental problems in many US communities and with substantial financial support from the US government's Corporation for National Service, service–learning programs are proliferating among both K-12 schools and teacher education programs in the United States. Service–learning is the integration of community service activities with academic skills, content, and reflection on the service experience (Cairn & Kielsmeier, 1991). Standards for quality service–learning experiences include the

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following: setting objectives for both learning and service, integrating service with academic content and skills, providing opportunities for student input and ownership of the project, meaningful reflection, effective collaboration with others in the school and/or community, and plans for assessing students' learning from the experience (Alliance for Service–Learning in Education Reform, 1993).

The components of curricular integration and reflection are what distinguishes service–learning from community service. Service–learning is not an extracurricular activity; it is a pedagogical method in which service projects form the basis of learning opportunities. Examples of school-based service-learning projects include building a nature trail as part of the science curriculum, conducting a voter registration drive as one aspect of the social studies curriculum, or writing pen pal letters to home-bound elderly as a means of developing literacy skills. In teacher education programs, service-learning experiences typically involve working with children in need through community agencies, assisting K-12 teachers in conducting service–learning projects with their classrooms, and developing and implementing service-learning activities during student teaching (National Service–Learning in Teacher Education Partnership, 1998).

While 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; Green et al., 1994; Flippo et al., 1993; Salz & Trubowitz, 1992; Seigel, 1994; Sledge & Shelburne, 1993; Wade, 1993,1995; Wade & Yarbrough, 1997), only one study to date has addressed whether graduates incorporate service–learning into their instructional repertoires as teachers (Anderson, Connor, Greif, Gunsolus & Hathaway, 1996). Anderson et al. (1996) found a 21% implementation rate among full-time teachers of the Seattle University Masters in Teaching Program, citing the following factors as most influential: gender, school location, grade level, flexible schedule, transportation, and financial support.

Building upon this initial study, we wanted to find out if novice teachers trained in the use of service–learning from several different teacher education programs across the US were using service-

learning or not in their full-time teaching. While we could have chosen to compare these teachers with others who did not have service–learning training (a strategy we may employ in a future study), for this first study we were most interested in the impact of our efforts to provide our students with the knowledge and skills they needed to implement service-learning as novice teachers. The exploratory study incorporated both quantitative and qualitative methods to understand beginning teachers' experiences with service–learning. We placed particular emphasis on exploring the variety of factors that influenced their efforts including personal issues (e.g. commitment to service–learning, family background) and contextual issues (e.g. types of service–learning experiences in preservice teacher education, financial support, administrative approval). The findings of this study hold important implications for both preservice teacher education programs and programs designed to support novice teachers.

1. Methods

1.1. Participants

The participants in this study were 344 K-12 public school teachers in their first through fourth years of full-time teaching. Months of teaching experience ranged from 1 to 50, though approximately 50% were in their first year of teaching and 25% were in their second year. While a few teachers dealt with as few as 2 or as many as 145 students in a given day, 94% had 30 or fewer students, the majority having between 24 and 28 students per class. The participants included 263 women and 77 men. Most were Caucasian; only 33 identified themselves as being an ethnic minority (9 African-Americans, 14 Asians, and various others). The teachers ranged in age from 22 to 57, though 75% were under 30 years. They taught in a variety of school settings including public ($n = 276$), parochial ($n = 35$), independent ($n = 18$), alternative ($n = 8$), and others ($n = 17$); and in rural ($n = 75$), suburban ($n = 147$) and urban ($n = 116$) communities. Elementary, middle, and high school teachers teaching all types of subjects were included.

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Thirty of the teachers were selected for interviews based on their having completed service–learning activities in their first few years of full-time teaching, their willingness to be interviewed, and their approximate representativeness as a group to the larger sample. Among the thirty interviewees, 25 were female and 5 were male. Their ages ranged from 23 to 55 with 73% below 30 years of age. Their class sizes ranged from 14 to 30 with half having a class size between 22 and 28. They taught in the following school settings: public ($n = 23$), parochial ($n = 4$), independent ($n = 1$), and alternative ($n = 2$); in rural ($n = 2$), suburban ($n = 15$), and urban ($n = 13$) settings. Twelve of the teachers had just completed one year of teaching and another dozen had completed their second year. The remaining six teachers were completing either their third or fourth years of teaching.

1.2. Teacher education programs

Each of the study's participants attended one of four teacher education programs that incorporated service–learning as a teaching method in their preservice education program. The programs included a large research university in a midwestern town (site A), a private university in a northwestern city (site B), a small private college in a midwestern city (site C), and a state university in an eastern town (site D). The interviewees were selected from sites A and B only, as these two programs had the most extensive and varied service–learning opportunities for teacher education students. Following is a brief description of each program.

Site A students in the elementary education program received instruction in service–learning through the required elementary social studies methods course and also completed a 10 hour service–learning project in the community as part of that course. Concurrently, students completed a required 12 hour practicum working in the local school district's service–learning program. Some students also chose the option to complete a service–learning project during student teaching. (Note: Some Site A respondents took the methods/practicum courses in the summer and did not have significant service–learning experience

there; however, those students did complete a project during their student teaching).

At Site B, students received instruction in service–learning through several required courses, including a foundations course "Learners and Instruction", and a course called "Service Leadership". As one aspect of the latter, students completed a 25 hour practicum assisting a K-12 teacher with a service–learning project. Students presented the results of their efforts in the schools at a service–learning conference on campus. Additional options in the program were to engage in a collaborative action research project on some aspect of service–learning and to complete a service–learning project during student teaching.

Site C teacher education students first learned about service–learning in the required introductory course "Orientation to Education in an Urban Setting". Part of this course was a 30 hour practicum that included some service–learning activities. A second required course "Creating Learning Environments" included more direct instruction about service–learning and occasional opportunities for teaching a service–learning related lesson in a practicum setting. Students at Site C also had the option to complete a service–learning project during student teaching.

At Site D, student teachers received initial training in service–learning during the first few weeks of student teaching. All were strongly encouraged to complete a service–learning project during student teaching (though not all did so). Service–learning concepts were also included in several middle school courses and methods courses.

While there were differences among the programs, each provided multiple experiences in service–learning (e.g. in courses, practica, community placements, student teaching). Students' participation in these experiences depended in some cases on their choices and in others on whether aspects of the program were required or optional. Table 1 summarizes, by site, the types of service–learning experiences students indicated they had. Readers should be aware that the findings in this table are as remembered by the students; in several cases students did not recall having service–learning experiences that we as their professors know they had.

Table 1
Numbers of respondents who indicated having various types of service–learning experiences in preservice teacher education

Type of activity	Site A	Site B	Site C	Site D
Didn't participate in SL	2	2	0	4
Teacher education class	95	134	33	10
Class not in teacher education	5	13	16	4
Practicum in a school	58	62	20	2
Practicum at a community agency	9	21	7	1
Student teaching	63	40	23	17
Total # of respondents for the site	120	145	58	21

1.3. Instrument development

This research project was initiated by the Teacher Education Affinity Group (TEAG) funded by the Corporation for National Service. We developed drafts of the surveys and interview questions based on prior research on preservice and inservice teachers' experiences with community service–learning (Anderson et al., 1996; Anderson & Guest, 1993; George et al., 1995; Erickson & Anderson, 1997; Wade, 1991,1993,1995; Wade & Eland, 1995; Wade & Yarbrough, 1997) and information we wanted to learn about beginning teachers' experiences with service–learning. We also gathered valuable input on potential data collection methods from recent graduates of one of the teacher education programs included in the study and the professor and graduate students in program evaluation at one of the other institutions. We then conducted a pilot study of both the surveys and interview questions with a select group of graduates from another teacher education program that included service–learning preparation but was not involved in the formal research study. The results of the pilot study led to further modifications of the surveys and interview questions.

Two versions of the survey were developed, a long form with a total of 130 items and a short form with 40 of the items from the Long Form. Two forms were designed in the hope that we could get in-depth information from a select number of teachers and general information from a greater

Table 2
Interview questions

1. Take a few minutes and tell me the story of one of your service–learning projects. Include references to your role, the service activities, your students, and the community organizations you engaged.
2. What are your reasons for integrating service–learning (SL) into your classes?
3. How does service–learning fit with your beliefs about teaching?
4. What were the major learning objectives of your SL project?
5. How often and over what length of time were your students involved in service?
6. How many students did you teach? How many were involved in your SL efforts?
7. How much time did you spend planning and preparing for your SL project? Who, if anyone, provided assistance with planning and preparation?
8. How were your students involved in choosing, planning, or implementing SL?
9. How were parents, community members, or agencies involved in the SL project?
10. How did you integrate the SL project with academic content and skills?
11. What reflection methods did you use? What is the goal of your reflection activities?
12. What methods did you use to assess the impact of SL on your students?
13. How do you determine the success of a SL project?
14. What obstacles and challenges did you encounter in integrating SL in your class?
15. Let's take a few of these challenges. How have you addressed them?
16. What types of support did your school provide to help you implement SL?
17. Of all your experiences in SL and in life, what most contributed to your current involvement in SL?

number of teachers. Both surveys included basic demographic data as well as items related to the following: prior service–learning experiences in the teacher education program, current practice of service–learning, school factors supporting service–learning, and intent to implement service–learning in the future. The long form also included items related to service experience prior to college, more detailed information on school and community factors helpful to service–learning implementation, and further information on teachers' prior experiences with service–learning in their teacher education program.

The interview questions were developed concurrently with the surveys. Following a standardized, open-ended format (Patton, 1980), 17 questions (Table 2) focused on encouraging teachers to describe their service–learning projects in greater detail and to reflect on their reasons for integrating service–learning into their teaching.

1.4. Data collection

During the Spring 1997 semester, surveys were mailed to 622 graduates from the four sites.[1] Response rates for each site and the two survey forms are detailed in Table 3. Overall, we mailed out 380 short form surveys and received back 205 for a 54% response rate. In regard to the long form surveys, we mailed 242 and received 139 for a 57% response rate. While there is likely some response bias (e.g. teachers favorable toward service–learning being more likely to complete and return the survey), this is probably less the case for Site A where 60% of the initial sample returned the postcards and were mailed surveys (not knowing it would be about service–learning) and 90% returned the surveys. In order to compare the responses between sites, we conducted separate analyses on each sample. On the short form, we preselected 10 items for in-depth analyses (Table 4). Table 5 presents the means and standard deviations for

Table 3
Numbers of responses on short (SF) and long form (LF) surveys by site

	Site A	Site B	Site C	Site D
SF mailed	54	214	112	—
SF received	49	115	41	—
SF response rate	90%	54%	37%	—
LF mailed	79	73	53	37
LF received	71	30	17	21
LF response rate	90%	41%	32%	58%
Total response rate	90%	51%	35%	58%

these 10 items for each of the three sites returning surveys. Table 6 presents the means and standard deviations for the 16 preselected items (listed in Table 4) for each of the four sites returning surveys. As can be seen from Tables 4–6, the general characteristics of the sites on these items were similar.

Trained graduate students at Site B conducted interviews with 15 teachers during the Spring 1997 semester. At Site A, the researcher conducted interviews with 15 teachers in five states during the Fall 1997 semester. With few exceptions, these interviews were conducted on-site at the teachers' schools. When possible, the interviewers collected

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[1] The sampling approach was slightly different for each site for reasons described below. At Site A, we wanted to obtain a high response rate for comparison purposes with the other sites. Thus, we first mailed postcards to all 446 elementary education graduates with service–learning experience who graduated between May 1994 and December 1996. The postcard was enclosed in an envelope with the request that graduates respond whether they were engaged in full-time teaching and if they would be willing to fill out a survey. In an effort to reduce response bias, no indication was given about the content of the survey in this initial contact. Of the 264 postcards returned, 130 were fulltime teachers and eligible for a survey. We mailed 56 copies of the short form and 74 copies of the long form.

At Site B, we divided up the 297 graduates of the 1994–1996 of the Masters in Teaching Program (a licensure program for those who have an undergraduate degree and want to be licensed to teach elementary or secondary students) to whom we sent 214 Short Forms and 73 Long Forms. At Site C, we mailed surveys to all 165 graduates from 1994–1996 with elementary or second-

ary licensure who had had one or more service learning placements. Of the 165, 112 received short forms and 53 received long forms. At Site D, since the sample was so small, we mailed only long-form surveys to 37 full-time teachers with whom the service learning practicum supervisor had maintained contact. This represented about 25% of the students who completed service learning practicums during the Spring 1995 through Spring 1996 Semesters.

The cover letter with the long form stated that those completing and returning the survey would be paid $10. The rest of the study participants received the short form along with information that their name would be placed in a sweepstakes to win $100 if they completed and returned the survey. Both cover letters indicated that survey recipients should only fill them out if they were currently teaching full-time. A second mailing was conducted one month after the first to non-respondents. In addition, follow-up phone calls were conducted to request completion of the surveys and, in some cases, to gather the survey information over the phone.

"artifacts" from the service–learning project (e.g. curriculum plans, letters to parents, etc.) and met with additional individuals in the school to get a broader view of the beginning teachers' experiences with service–learning. Each interview was transcribed in its entirety.

1.5. Data analysis

Yarbrough conducted the analysis of the survey results. In addition to analyzing the descriptive statistics by site and long or short survey form, correlations were conducted between two criterion items (a) having implemented service–learning as a teacher and (b) the likelihood of doing so in the future and two sets of predictor items, 8 for the short form and 14 for the long form. To further investigate possible correlates of the two criterion variables on the two survey forms, multiple regression analyses of prespecified variables was conducted.

Wade completed a qualitative analysis of the 30 interview transcripts which included the three sub-processes of analysis recommended by Miles & Huberman (1984): data reduction, data display, and conclusion drawing and verification. First, reading and re-reading the transcripts allowed for the emergence of several categories. Interviewees' responses in the interviews were then placed into these initial categories. For example, responses to

Table 4
Selected items used in Tables 5–8

Short-form selected items

1.	Have you implemented any service–learning projects as a teacher? (yes or no)
2.	How likely is it that you will implement service–learning in your teaching in future years? (very likely to very unlikely)
3.	Total service learning participation in college (checked off 0 to 5 different ways)
4.	In general, how would you evaluate your collegiate service–learning experience(s)? (very negative to very positive)
5.	Does the school where you teach have a service–learning program? (yes or no)
6.	Does the school where you teach have a service–learning coordinator? (yes or no)
7.	Does the school where you teach provide funds for service–learning projects? (yes or no)
8.	What is your age?
9.	How many months of full time teaching have you completed?
10.	What is your average class-size?

Long-form selected items

1.	Have you implemented any service–learning projects as a teacher? (yes or no)
2.	How likely is it that you will implement service–learning in your future teaching? (very unlikely to very likely)
3.	Total service learning participation in college (checked off 0 to 5 different ways)
4.	How would you evaluate your collegiate service–learning experience(s) in general? (very negative to very positive)
5.	Does the school where you teach have a service learning program? (yes or no)
6.	Does the school where you teach have a service–learning coordinator? (yes or no)
7.	Does the school where you teach provide funds for service–learning projects?
8.	What is your age?
9.	How many months of full time teaching have you completed?
10.	What is your average class size?
11.	If you organized a service–learning project during student teaching, for what percent of the planning of the project were you responsible? (0%-100%)
12.	If you organized a service–learning project during student teaching, for what percent of the implementation of the project were you responsible? (0%-100%)
13.	Indicate whether lack of funds hindered your use of service learning as a teacher? (not a hindrance to critical hindrance)
14.	Indicate whether lack of administrative support hindered your use of service learning as a teacher? (not a hindrance to critical hindrance)
15.	Indicate whether being too busy and overwhelmed with other responsibilities hindered your use of service learning as a teacher? (not a hindrance to critical hindrance)
16.	Indicate whether other teachers in your school not practicing service learning hindered your use of service learning as a teacher? (not a hindrance to critical hindrance)

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three questions related to reasons for using service–learning (questions 2, 3, and 17) were grouped in the "rationale" category as teachers' answers to these questions were often similar. Next the data were reduced by summarizing key ideas for each category expressed by each interviewee. These key words and phrases were placed in a chart for each category. Following established procedures for content analysis, categories were continually modified in light of the data (Holsti, 1969; Weber,

1990). During the process of drawing conclusions, particular attention was paid to identifying discrepant evidence and rival explanations (Miles & Huberman, 1984).

2. Results

The results of both the surveys and interviews are presented in the following sequence of categories: pre-college service experience, service–learning in preservice teacher education, service–learning in teachers' schools, beginning teachers' service–learning projects, teachers' reasons for service–learning involvement, and successful service–learning projects.

2.1. Pre-college service experience

Most teachers indicated they were "somewhat" or "moderately" active in volunteer community service during their pre-college years (64%). Only 15% of the teachers were very active and 7% did not participate in any community service. Of those who did participate, most were positive or very positive about their pre-college service experience. Only 7% rated their experience as neutral or

Table 5
Short-form means and standard deviation by site

Item	Site A		Site B		Site C	
	M	SD	M	SD	M	SD
1	0.33	0.47	0.18	0.69	0.33	0.47
2	4.84	1.26	4.85	1.30	5.12	1.33
3	1.90	1.22	1.96	1.03	1.98	0.95
4	6.03	1.06	6.07	1.33	6.15	1.03
5	1.32	0.47	1.17	0.38	1.23	0.42
6	1.10	0.30	1	0	1.10	0.31
7	1.15	0.36	1.11	0.31	1.12	0.33
8	27.68	5.57	26.11	5.32	30.22	6.01
9	15.14	10.16	13.78	8.34	12.96	8.53
10	24.17	7.25	20.12	6.89	24.92	5.68

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Table 6
Long-form means and standard deviations by site

Item	Site A		Site B		Site C		Site D	
	M	SD	M	SD	M	SD	M	SD
1	0.19	0.40	0.28	0.45	0.52	0.51	0.36	0.49
2	4.27	1.39	4.83	1.44	5.52	0.93	5.23	0.90
3	2.25	1.39	2.18	0.99	1.76	1.04	1.67	1.03
4	6.25	1.71	6.20	1.08	6.57	0.75	6.0	1.09
5	1.5	0.52	1.25	0.44	1.29	0.46	1.23	0.43
6	1.19	0.40	1.06	0.23	1.05	0.22	1.10	0.31
7	1.56	0.51	1.21	0.41	1.14	0.36	1.23	0.43
8	28.88	5.23	26.01	5.19	28.76	6.42	30.59	6.25
9	17.06	15.67	16.14	13.76	11.43	8.39	16.62	9.84
10	25.5	3.67	20.34	6.56	23.14	6.67	27.33	7.72
11	11.25	20.62	48.03	40.90	82.38	32.85	32.17	34.38
12	11.88	28.57	46.69	41.03	82.38	30.44	31.67	37.33
13	2.78	1.64	2.58	1.64	2.14	1.96	2.6	1.45
14	1.38	1.20	1.25	1.71	1.10	1.81	0.57	1.19
15	3.44	1.50	3.48	1.46	3.14	1.77	4.0	1.36
16	2.13	1.67	2.31	1.98	1.05	1.40	1.73	1.68

negative. Parents' participation in community service was positively correlated with teachers' pre-college service activity ($r = 0.43$). Also, a positive evaluation of one's early community service experience was positively correlated with parents' participation ($r = 0.39$) and more strongly with teachers' own pre-college service experience ($r = 0.64$).

2.2. Service–learning in preservice teacher education

As mentioned previously, the service–learning training offered at the four teacher education program sites varied. Findings on type of activities from both the long form and short form surveys by site are listed in Table 1. Overall, results reveal that most participants (79%) report having had service–learning experiences through a teacher education class. Slightly over 40% completed service–learning projects in a practicum at a school and 44% did projects during student teaching. Fewer numbers reported service–learning involvement through courses not in teacher education or practica at community agencies. Eight respondents indicated that they had had no service–learning experience in their preservice teacher education. While some variations exist within programs depending on which year students attended, all received some experience in service–learning according to the researchers at each site. In our view, these eight students have forgotten or omitted to include some of the service–learning experiences they had in teacher education or misunderstood the question. Overall, respondents were very positive about their service–learning experiences in teacher education; 78% rated their experience as a 6 or 7 on a 7 point scale ranging from 1 (very negative) to 7 (very positive). Only 5% rated their experience as neutral and 2% as negative. Responses were similar across sites. The lowest average was approximately 6 for Site C on the short form and Site B on the long form, while the highest average was 6.57 for Site D on the long form.

2.3. Service–learning in teachers' schools

A number of the survey items on both forms focused on the prevalence of service–learning prac-

tice in the teachers' schools. Eighty-six of the 344 respondents (25%) indicated that their schools had a service–learning program, though 40 were "unsure". Twenty-seven teachers (8%) indicated that their schools had a service–learning coordinator; 41 were unsure. Some teachers asserted that their school or district provided funds for service–learning projects ($n = 60$, 17%), yet again, many were unsure ($n = 147, 43\%$).

When asked "Have you implemented any service–learning projects/activities as a teacher?", 102 of the teachers (30%) indicated they had. The percentages of teachers implementing service–learning ranged from 18% for Site A on the Short Form to 52% for Site D on the long form.[2] Teachers completing the long form surveys also noted the following individuals who had implemented or helped implement service–learning projects at their schools during the previous year: other teachers ($n = 55$, 40%), the principal ($n = 21$, 15%), parents ($n = 17$, 12%), and service–learning coordinators ($n = 6$, 4%). In a space labeled "other", a few teachers listed the following as well: vice principal, community agency members, school counselor, the school-wide community service committee, and the before and after school program director.

Teachers who indicated they had completed a service–learning project as a teacher were asked to rate various school factors on a scale from "not at all helpful" to "critically helpful". Items indicated by at least 75% of the teachers as being very or critically helpful were the following: flexible scheduling, transportation, peer support, administrative support, release time for planning, easy phone access, parent assistance, and community agency assistance. Many of these factors are the same as those found by Anderson et al. (1996).

An item on the long form survey asked all respondents to indicate from a list of 14 factors, those that most hindered, or served as a disincentive to, the use of service–learning. Three items were listed as a critical hindrance by at least half of the survey

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[2] Several factors likely account for this difference. First, Site A has the least response bias due to the different sampling procedure used. Second, Site D participants completed service–learning during student teaching. They were also a select group of teachers with whom the professor had kept in contact.

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respondents: lack of time for service in the school day, lack of time to plan a service–learning project, and being too busy and overwhelmed with other responsibilities.

Teachers we interviewed spoke of many different types of obstacles and challenges they faced in the process of conducting service–learning activities (see Table 9). The most difficult challenge, referred to by 11 of those interviewed, was time. Teachers mentioned needing more time to plan projects, to seek out resources and help in the community, and to fit service into an overly crowded curriculum and school day. Two teachers specifically mentioned how difficult it was to find the time and energy as a first-year teacher to carry out a service–learning project. One of these two teachers stated,

> It's so hard. I mean, it's hard to figure out a unit plan for me. So if I were to expand beyond that and go, well in addition to that we're going to have a service–learning component, I would have to be super human and have no social life.

Ten teachers felt challenged by some part of the logistical aspects of coordinating the project: from finding funding to getting it started to keeping all of the pieces organized. Other problems mentioned by just a few teachers were student resistance to getting involved in service and the project not turning out the way they wanted. Three teachers stated they encountered no obstacles in the course of their service–learning experience.

Twelve teachers mentioned problems they had with other individuals involved in the project. Four mentioned a lack of support or even an outright "no" from their principals. Two mentioned a lack of help or support from parents. Problems with community members were mentioned by seven teachers; most referred to community agency workers who did not understand the abilities and minds of their students and therefore did not work with them in a "kid-friendly" manner.

Despite the challenges faced by some of the teachers in their service–learning practice, strong beliefs in the importance of service–learning were expressed by the majority of respondents completing both forms of the survey. When asked "How likely is it that you will implement service–learning

in your future teaching?", 83% ($n = 285$) indicated that it was likely, with almost half of the overall sample ($n = 170$) circling the highest response, "very likely". Averages at the different sites were similar, clustering around 5 on the 6 point scale ranging from 1 (very unlikely) to 6 (very likely). The lowest average rating was for Site C on the long form (4.27) and the highest average rating was for Site D on the long form (5.52). In addition, 78% ($n = 267$) indicated they plan to spend more time on service–learning, with 38% ($n = 130$) choosing "much more than this year", the highest response on a 7 point scale.

2.4. Beginning teachers' service–learning projects

Both survey forms provided lines for teachers to write a brief description of their service–learning projects, the subjects in which they were integrated, and the duration of the project in number of weeks. Beginning teachers' projects varied greatly, yet most could be categorized in the following areas: environmental (park clean-ups, tree or garden planting, recycling, water monitoring, adoption programs with animals or rainforest acreage), intergenerational (conducting oral histories, writing pen pal letters to seniors, visiting nursing homes, making gifts for nursing home residents, making books for preschoolers), poverty/hunger (fundraisers for community agencies, serving a meal at the soup kitchen, collecting canned foods for the food pantry), and school-based projects (recycling at school, cross-age or peer tutoring, environmental projects on school grounds). Environmental and school-based projects were predominant, with many intergenerational and poverty related activities as well.

The service–learning projects were integrated with every subject area, typically math, science, social studies, reading, and/or language arts. In addition, religion in the parochial schools and special subjects such as drama, art, video production, and computers in several schools were also included. Projects ranged in duration from a few days to "ongoing". The long form provided spaces for respondents to indicate the number of hours they spent on various aspects of the service–learning project. The beginning teachers spent a mean of 10.3 hours on planning the project, 10.9 hours on

service activities, 9.6 hours on classroom lessons related to the service activity, and 3.5 hours on reflection, though over 60% spent from 2 to 6 hours on service and 1 to 2 hours on reflection.

Questions in the interview (Table 2) were related to several aspects of quality service–learning practice. In general, the quality of the projects was strongest in terms of expressed objectives, curriculum integration, collaboration, and student ownership. Teachers' projects were minimal in terms of time spent on service and reflection. One teacher admitted, "This is where I think we lacked. All we had was a group discussion about it in first grade and I don't know what the fourth grade did with it ... It was a real quick twenty-five minute discussion and that was the last we talked on it". Despite the limitations, teachers viewed most projects as positive learning experiences for their students that provided valuable if mostly small contributions to their schools and communities.

2.5. Teachers' reasons for service–learning involvement

A few of the interview questions related to teachers' rationales for doing service–learning and many teachers often included such information in their answers to other interview questions as well (see Table 9). Not surprisingly, most of the reasons teachers offered for why they engage their students in service–learning revolved around positive benefits for their students. Providing learning that is "real world", meaningful, relevant, active, interesting, or enjoyable to their students featured prominently. Seven teachers stated that they thought students learned more through service–learning and five others asserted that service–learning was "easy to integrate" or fit well with their school curriculum or district goals. One teacher stated, "To me ... just as important as teaching about math and reading is to teach them to be good people".

Half of those interviewed also mentioned wanting their students to develop greater self-esteem, self-worth, or self-efficacy, the sense that "I can make a difference" in my world. Half of the teachers stated that they wanted their students to develop empathy or responsibility for others and a third thought that service–learning would contribute to

students' appreciating and connecting with their communities. A third also asserted that they hoped service–learning would lead to life-long volunteering and community participation among their students.

Only a few comments focused on the teachers themselves or the larger community. Six said they included service–learning in their teaching because they were trained in it, felt it was personally important, or had a good experience with it themselves. One added that she thought it would "make myself look good in the district." The few comments relating to the community dealt with the importance of meeting community needs and improving the community's attitudes toward adolescents.

The last question in the interview asked the teachers to indicate the primary factor in their lives leading to their use of service–learning in teaching. While some of the teachers struggled with this question, others were quite clear. Eight teachers stated that the service–learning preparation they had received in the teacher education program led to their involvement. The most prevalent factor cited, though, was early life experience. Sixteen teachers referred to service activities they had done as youth with their families, churches, or schools. Perhaps the strongest example is from a teacher who did two service–learning projects, a cross-age tutoring program and a canned food drive for a local food bank. He stated, "Basically all my life I've volunteered as either a tutor or worked at food banks. It has just been a part of my life, I'd say, from like the age of eight".

2.6. Successful service–learning projects

Teachers were asked in the interviews to talk about how they would determine if a service–learning project was successful (see Table 9). Not surprisingly, their answers were very consistent with their reasons for involving their students in service–learning activities. While eight teachers mentioned the importance of the service–learning project meeting a need in the school or community, the vast majority of the teachers ($n = 23$) placed priority on their students' reactions to the experience. They would deem the project a success if students were enthusiastic, excited, proud, or positive. Some would look for students to want to continue

ing with their helping, to remember the project, or to refer back
that they hoped to the experience throughout the year. One high
ng volunteering school teacher's recipe for success was the follow-
their students. ing: "You hang out for ten or fifteen years and when
n the teachers your former students start coming back and tell
. Six said they you all the great things they did then you know it
tching because was a success".
sonally impor-   Some teachers also felt it was important for stu-
it themselves dents to learn from their service experience. Three
l "make myself teachers stated that a successful project would in-
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importance of Eight teachers mentioned students learning about
wing the com- themselves, breaking down stereotypes of others, or
ts.   developing awareness of community issues. One
ew asked the second grade teacher asserted that a project would
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led with this   if I can meet my objectives and they have
Eight teachers   learned in the process. If they also hopefully
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ney had done   have as community members and citizens of
es, or schools. a community to fill in and reach out to people.
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2.7. Factors explaining the use of or intent to use service–learning

Two of the most important questions that can be addressed by the surveys are which experiential and situational factors are associated with actual implementation of service learning in teaching and the intent to implement service learning in future teaching. By examining which of the other items correlate with these two criterion variables (items 1 and 2 in Table 4), we hoped to be able to describe the features of the service learning experience, as well as teacher characteristics, that best predicted or explained which of the teachers went on to implement service learning or expressed likelihood that they would do so in the future.

Correlations between the two criterion items and the 10 predictor items on the short form are presented in Table 7, and for the long form between the two criterion items and the 16 predictor items in Table 8. These analyses were exploratory and suggestive of possible relationships that will need to be confirmed by future research. We kept the short and long form data separate because there were different numbers of items selected for analyses.

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Table 7
Aggregated short form correlations for the selected items

	2	3	4	5	6	7	8	9	10
1	0.20*	0.17*	0.20*	0.11	0.06	0.03	0.16*	0.12	0.04
2		0.18*	0.38*	−0.10	−0.04	0.15*	−0.02	−0.04	−0.04
3			−0.29*	0.09	0.08	0.09	−0.09	−0.09	0.12
4				0.05	0	0.05	0.05	0.11	0
5					0.49*	0.22	0.15	0.18	0.06
6						0.11	0.10	0.01	0.08
7							0.04	0.13	0
8								0.12	0.04
9									0.09

*$p < 0.05$, $n = 186$

The results of each are presented separately and can be viewed as providing complementary results.[3]

Aggregating the data across all sites, 58 of the 202 (29%) responding to the short form and 44 of the 125 (35%) responding to the long form indicated that they had already implemented service-learning in their teaching. In addition, 145 of 202 (72%) responding to the short form and 89 of 135 (66%) responding to the long form indicated that they were likely or very likely to implement service-learning in future teaching. Which experiential and situational factors are associated with these two service-learning outcomes?

Results from the long form provided the strongest set of predictors of actual service-learning activity in current teaching as well as the likelihood of future service-learning activity. The factors best predicting likelihood of future service-learning activity were the following: responsibility for

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[3] As can be seen in Table 7, responses from teachers on the short form suggest several moderate associations. Having implemented service-learning projects is significantly correlated with planning to implement service-learning in the future ($r = 0.20$), with total service-learning participation in college ($r = 0.17$), with positive evaluation of service-learning experiences ($r = 0.20$), and with age ($r = 0.16$).

In order to investigate more fully the ability of these associates to account for variability in whether these teachers had implemented service-learning, we submitted the variables to multiple regression analysis. In the stepwise regression equation, positive evaluation of collegiate service learning entered first ($R^2 = 0.04$), followed by age ($R^2 = 0.07$), total service-learning participation ($R^2 = 0.09$), likelihood of future implementation of service learning ($R^2 = 0.10$), and months of full-time teaching $R^2 = (0.11)$. Because the criterion variable was scored dichotomously, we also subjected the variables to logistic regression procedures. The possible independent (predictor) variables entered in the following order: positive evaluation of collegiate service-learning experiences, age, likelihood of future service learning, total service-learning participation, and months of full-time teaching. The classification of respondents who had and had not implemented service learning based on the prediction equation compared to actual reported implementation resulted in 72% concordant and 28% discordant classifications.

With regard to the second criterion variable, how likely teachers are to implement service learning in the future, Table 7 reveals the following significant correlations: total service-learning participation in college ($r = 0.18$), evaluation of collegiate service-learning experiences ($r = 0.38$), and availability of funds at the school ($r = 0.15$).

Regression analyses resulted in the following results. Evaluation of collegiate service-learning experiences entered first ($R^2 = 0.15$), followed by available funding ($R^2 = 0.16$), presence of a service-learning program in the present school ($R^2 = 0.18$), and previous implementation of a service-learning program ($R^2 = 0.19$).

The results from these two regression analyses on the short form variables suggest that a modest amount of variability in the criterion variables can be accounted for by these selected items from the survey, in part helping to explain the situational and educational experiences that are associated with actual imple-

mentation of service-learning and intent to implement service learning.

Results from the long form survey analyses suggest more robust covariance between selected items and the criterion variables. Five items were correlated significantly with prior implementation of service-learning projects and activities: percent responsibility for service-learning implementation during student teaching ($r = 0.29$), percent responsibility for service-learning planning during student teaching ($r = 0.23$), likelihood of future service-learning activity ($r = 0.34$), evaluation of collegiate service-learning experiences ($r = 0.17$), and presence of a service-learning coordinator in the current school ($r = 0.17$).

Multiple regression analyses resulted in the following results: reported likelihood of future service-learning projects/activities entered first ($R^2 = 0.10$), followed by months of full-time teaching ($R^2 = 0.15$), percent responsibility for implementation ($R^2 = 0.18$), and whether lack of funds was a hindrance ($R^2 = 0.20$). The logistic regression procedure resulted in the same variables entering in the same order. The classification of those who had and had not implemented service learning based on the prediction equation compared to actual reported implementation resulted in 77% concordant and 23% discordant classifications.

Table 8 also presents the significant correlations between the criterion variable likelihood of future service-learning practice and activities and other selected survey items. The six significantly associated covariates were percent responsibility for planning service-learning activities during student teaching ($r = 0.45$), percent responsibility for implementing service-learning activities ($r = 0.42$), positive evaluation of collegiate service-learning experiences ($r = 0.33$), previous implementation of service-learning projects/activities as a teacher ($r = 0.34$), and months of full-time teaching ($r = 0.25$).

Multiple regression analyses resulted in the following results. Percent responsibility for planning the service-learning project during student teaching entered first ($R^2 = 0.21$), followed by positive evaluation of collegiate service-learning experiences ($R^2 = 0.27$), average class size ($R^2 = 0.31$), previous service learning activities as a teacher ($R^2 = 0.35$), months of full-time teaching ($R^2 = 0.40$), existence of a service-learning program in the present school ($R^2 = 0.41$), and whether lack of funds was a hindrance ($R^2 = 0.42$).

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Table 8
Aggregated long form correlations for the selected items

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.34*	0	0.17*	0.10	0.17*	0.08	−0.04	0.09	−0.04	0.23*	0.29*	0.10	0	−0.04	−0.09
2		0.07	0.33*	0.10	0.04	0.10	−0.14	−0.25*	0.13	0.45*	0.42*	−0.17*	−0.02	−0.16	−0.16
3			0.06	0.08	0.02	0.02	−0.08	−0.11	−0.15	0.20*	0.17*	0.07	0.09	0	−0.02
4				−0.12	0.14	0.05	−0.08	−0.14	−0.03	0.23*	0.30*	0.12	0.15	−0.12	0.05
5					0.35*	0.24*	0.04	0.20*	0	0.01	−0.02	0.03	0.04	0.04	−0.23*
6							0.11	0.30*	0.11	0.03	0	0.10	0.05	0	−0.14
7							−0.08	0.13	0.14	−0.07	0.05	−0.13	0.15	−0.03	−0.05
8								0.37*	−0.02	−0.15	−0.17*	0	−0.03	−0.16	−0.16
9									−0.04	−0.15	−0.17*	−0.08	−0.03	0.08	0
10											0.91*	−0.08	−0.07	0.08	0
11												−0.17	−0.10	−0.15	−0.19*
12												−0.07	0.46*	−0.12	−0.14
13														0.19*	0.21*
14														0	0.39*
15															−0.01

* $p < 0.05$, $n = 81$

planning service–learning activities, positive evaluation of collegiate service–learning experiences, smaller class size, previous service–learning activity, and greater months of full-time teaching. These factors could account for approximately 40% of the variance in the reported likelihood that teachers would use service–learning activities in their future teaching. Responsibilty for planning and implementation of collegiate service–learning activities as well as positive evaluation of the collegiate service-learning experience (and likelihood of future service–learning activity) were also associated with having implemented service–learning, although the factors could only account for about 20% of the variance. These results suggest that specific preparation features and school characteristics may play a large role in whether teachers in fact intend to implement and actually do implement service–learning activities once they leave their preservice training and begin teaching.

3. Discussion

This exploratory study sheds light on novice teachers' experiences and points to many interesting avenues for further research. While the participants' experiences varied widely, the following general conclusions seem evident. First, the vast majority of the teachers had positive experiences with service–learning in their teacher education programs, and expressed a strong commitment to service–learning involvement in the future. About 30% of the novice teachers had already implemented service–learning in their first few years of full-time teaching, a promising percentage given all that novice teachers are trying to juggle and the fact that for most of them service–learning is not a requirement. However, it is important to look at the variety of factors that may further explain why most of the teachers are not currently choosing to implement service–learning in their classrooms.

3.1. Factors influencing service–learning involvement

Several factors appear to be influential. First, as with most beginning teachers, our respondents

indicated they were extemely busy, overwhelmed with the many tasks involved in the early years of teaching, and found themselves with little extra time for planning. Second, most of the schools in which these beginning teachers are working are not providing much support for service–learning practice. Few had established programs, hired service-learning coordinators, or provided funds for service–learning (or if they had, the teachers were not aware of them).

Given the prevalence of these two factors, it is notable that 102 novice teachers in this study did implement service–learning. Further analysis of their efforts provides important insights about successful novice teachers as well as recommendations for promoting quality teacher practice through preservice and inservice teacher education programs.

These teachers, like their counterparts who did not practice service–learning, expressed concerns about the lack of time for planning and carrying out projects. While many of these teachers had positive experiences with service–learning in their teacher education programs and expressed strong commitment to implement service–learning, so did many of those teachers who had not yet implemented projects. The interviews revealed that while some teachers found support for conducting service-learning projects, others did so in spite of their principal's opposition, lack of funds, or other teachers' involvement.

The constellation of personal and contextual factors involved problematizes the task of pointing to any single factor as an explanation for why some teachers made the choice to practice service–learning. Yet the results suggest that students who come out of service–learning practica and student teaching experiences where they took responsibility for coordinating a service–learning project and positively evaluated their experience are more likely to implement service–learning and report a stronger likelihood that they will implement service–learning in the future. These results suggest that educational and situational factors really do play a role in service–learning outcomes for practicing teachers just beginning their careers. However, because the variables used in the regression analyses are based on responses to one single item, it is likely that

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there is considerable error in the responses, lessening the relationships between items and lowering the correlations. In addition, some important relationships may have gone unnoticed because of this attenuation.

3.2. Effectiveness of teachers' projects

The issue of how effective teachers' projects were can only be addressed here somewhat generally, given the diversity of the teachers' experiences. Overall, the novice teachers implemented small service–learning projects that were integrated in a variety of subject areas and incorporated at least some opportunities for student input and decision making. The teachers were explicit in their goals for students' learning from the experience. These goals usually involved both academic learning and personal/social development; the success of a project was most often determined by students' enjoyment and learning. In general, the projects involved little reflection or formal assessment. Teachers tended to rely on unstructured journaling or discussions for the former and observation for the latter. While the implementation of the project usually involved collaborating with others both in the school and the community, teachers tended to plan the project with little help from others.

In general, we would agree with the majority of the interviewed (Table 9) teachers who maintained that their projects were effective. The quality of the projects was strongest in terms of expressed objectives, curriculum integration, collaboration, and student ownership. Most teachers' projects could have benefited from more long-term service activity and more time spent on reflection and assessment. Yet given all that novice teachers juggle in their early years, these projects were positive learning experiences for their students and provided valuable if mostly small contributions to their schools and communities.

3.3. Benefits for novice teachers

Given the prevalence of isolation and self-doubt among many beginning teachers, the teachers in this study who implemented service–learning projects were notable in their discussions of the colle-

giality, confidence, and affirmation they experienced as a result of their service–learning involvement. Many had received positive comments from their principals, parents, and/or other teachers in the school. Some had also received awards or public recognition through the media. These findings are supported by the few other studies that we found on successful beginning teachers. For example, Krasnow (1993) noted the importance of a strong sense of self in beginning teachers' development, Chester (1991) found that collaboration and attention from supervisors was essential for novice teachers' to exert power and influence in their teaching, and Goodman (1987) found institutional support essential to novice teachers' empowerment.

And yet, while teachers enjoyed the personal recognition resulting from their service–learning activities, it was their students' enjoyment or learning from the service–learning project that provided them with the greatest thrill. Goodman (1987) noted a similar sense of accomplishment in his study of two empowered novice teachers who found that their students were interested in learning as a result of their personal efforts at curriculum development. Clearly, the teachers we interviewed in this study had gone beyond a "self" orientation in their career concerns to a focus on their students' learning and development.

3.4. Recommendations for teacher educators

This study, the first large-scale effort to explore beginning teachers' experiences with community service–learning, sets the stage for additional research on the factors that influence teachers' choices to implement service–learning in their classrooms. Studies examining the influence of different types of preservice preparation (e.g. practica, course work, community placements) as well as the effects of specific school-based factors (e.g. funding, program coordinator assistance, school-wide service–learning program) on novice teachers' practice are important next steps. Research comparing preservice teachers who have a great deal of ownership in their conduct of service–learning activities with those who do not would also provide useful feedback to teacher educators.

Table 9
Selected quotes from teacher interviews

Interview Question	Sample Responses
2. What are your reasons for integrating SL into your classes?	"Kids need to learn to appreciate their surroundings, help others, and I think SL is a good way to get that across to them." "I wanted them to do something hands-on where they had a chance to go out and do something and take action to help others." "It can give the kids a kick, and some self-confidence and self-esteem, especially if it's successful."
3. How does SL fit with your beliefs about teaching?	"Making it relevant, making it fun, wanting them to be good learners, and life-long learners, giving them processes to learn on their own." "I believe that students need a context for their learning. They need to know that it's real." "It is educating a person to learn how to be kind to people, also connecting them to their community, seeing what resources are out there."
4. What were the major learning objectives of your SL project?	"Students will understand the different sort of conceptions and misconceptions of poverty. In the primary level, we're really dealing with issues of indentifying the difference between individuals' wants and their needs." "That the kids understand about nutrition and that when they give food to a food bank that it will feed people . . . Pragmatic learning objectives were cutting, gluing, coloring and dexterity of their fingers in making the mobiles." "The first one was cooperative learning. I did a lot with their small groups, but it was for them to see how they could get along with each other and in their job roles to see if they did their job well."
10. How did you integrate the SL project with academic content and skills?	"I usually come up with the academic content and skills first and then build the service-learning around it." "Naturally reading and writing was integrated, problem solving, they worked in groups and all that, but it wasn't a huge part of our curriculum." "Through the science curriculum. One of the things we are doing is life science, talking about the kingdoms. So the plant kingdom is mostly what we do in the garden."
13. How do you determine the success of a SL project?	"When I see the kids really carrying the learning home with them or I'm seeing them apply it to other things they study or later lessons, then I really feel like it's been instilled in them." "I would want to look at what the students brought away from it, if they learned something, if they had a reaction to it, if they were all excited and talking about it." "If the students are out there doing something and contributing a service and kind of getting off their duff to do something besides just sitting in their classroom, I feel like that's already a success."
14. What obstacles and challenges did you encounter in integrating SL in your class?	"Finding the time to find out how you can break away from the curriculum that you know you have to cover and still incorporate (SL) somehow." "Some of the plants didn't grow . . . and the rain, yes, that was an obstacle . . . you'd see those plant journals and they'd say 'We tried to plant but it rained!' three or four days there". "One of them was my principal ... After we were done, her whole attitude was 'Well I'm glad you're done so you can get back to teaching."

While we await the findings of these additional efforts, however, teacher educators need not stand idle in their efforts to improve the likelihood of their future teachers' use of service–learning in the classroom. Based on the results of this exploratory study, we can conclude that novice teachers will be more likely to employ service–learning as a pedagogical strategy under two conditions: (1) if they participate in varied high-quality service–learning experiences in their teacher education programs in which they have significant ownership, and (2) if they are provided with support for implementing service–learning in the schools in which they teach. It is likely that similar conditions will enhance implementation rates for other types of teaching methods taught in teacher education programs as well.

In regard to the first condition, teacher educators should provide multiple service–learning experiences for preservice teachers through classes, practica, and student teaching. It is important that these experiences be positive ones; thus they should provide meaningful, enjoyable service and frequent opportunities for different types of reflection. Teacher educators can also assist their future teachers in effectively implementing service–learning in their classrooms by encouraging them to brainstorm ideas for simple, low-cost projects and to plan for appropriate reflection and assessment strategies.

Creating supportive school environments for beginning teachers' service–learning efforts is a larger yet no less important task. Teacher educators can work with local school districts to help them develop comprehensive programs and to secure funds for hiring a service–learning coordinator and providing financial support for project costs. According to the teachers in this study, it would also be extremely helpful if schools could provide release time for planning service–learning projects, contacting community agencies, and coordinating all of the details involved. Teachers in this study also benefitted tremendously from the support of principals, parents, other teachers, and school staff. Inservice workshops on service–learning could help teachers integrate service–learning with their curricular goals and consider who in the school or local community might assist them.

4. Conclusion

Novice teachers face a host of challenges in their first few years of full-time teaching. While many tend to teach as they were taught in their early years of schooling, this study provides evidence that some beginning teachers are willing to implement strategies they learned in their teacher education programs, and can do so with some success, in spite of being busy, overwhelmed, and even unsupported in their efforts at times. As teacher educators committed to service–learning and other innovative teaching strategies develop quality programs on their campuses and in the future workplaces of their graduates, hopefully even more beginning teachers will bring these innovations to their early years of teaching.

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