Prospective teachers and their supervisors completed a pre- and post-student teaching questionnaire concerning the perceived impact of education and training on their capabilities to teach. Forty-one undergraduate and 18 graduate student teachers participated, along with 66 supervisory teachers. Extensive practica, consisting of over 400 hours in elementary school classrooms, had been introduced to the undergraduate teacher education program but not to the graduate school program. Results indicated that student teachers began student teaching quite confident in their beliefs about their education, training, and ability to teach. After they completed two student teaching placements of 7 weeks each, they felt even more positive about their ability to teach elementary subjects, to use specific teaching methods and strategies, and to manage a classroom in general. Undergraduate students were more confident than graduates at the post-questionnaire point. Following the student teaching experience, supervisors conveyed a positive belief about undergraduate student teachers' general preparation to teach, with 76 percent of the supervisory teachers of undergraduates ranking their students at the 2 highest levels, while only 40 percent of the supervisory teachers of graduate students did so. Factors explaining these intergroup differences are considered. (JDD)
Pedagogical Field Experience or None: A Comparison Study Report

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Prospective teachers' beliefs about teaching and learning to teach strongly influence what they do in their classrooms (Brooseau & Freeman, 1988; Clark & Peterson, 1986; Feiman-Nemser, 1985; Richardson-Koehler, 1988; Weiner, 1990). Before student teaching, prospective teachers typically hold overly inflated beliefs about their own abilities to teach and how they can improve children's learning, but as they acquire classroom experience, these beliefs decline. Characteristically, many novice teachers move toward conservative views about classroom management and control (Hoy & Wolfolk, 1990; Weinstein, 1988).

Although the student teaching component of teacher education is recognized as having a large impact on prospective teachers' views about classroom teaching, not all that they learn is constructive (Cochran-Smith, 1991; Goodlad, 1990). Student teachers may learn utilitarian or short-term goals, such as classroom order and control, but neglect long-range concerns about curricular improvement or children's learning (Richardson-Koehler, 1988).

In this study, prospective teachers and their supervisors completed a pre- and post- student teaching questionnaire concerning the perceived impact of education and training on their capabilities to teach. Extensive practica, consisting of over 400 hours in elementary school classrooms, had been introduced to the undergraduate teacher education program, but not to the graduate school program. The course work for the two groups is similar, based on children's active and integrated learning. Course work in teaching methods, while separated into content areas (e.g., science and social studies) stresses the integration of reading, writing, and inquiry through cooperative and collaborative processes.
The study asked three questions:

(1) How do prospective teachers in each program perceive their capabilities in teacher preparation before student teaching?

(2) In what ways do these prospective teachers change in their perceptions about teacher preparation after they have student taught?

(3) How do supervisory teachers' opinions compare to the student teachers' opinions about their work in student teaching?

Method and Analysis

Forty-one undergraduate and eighteen graduate student teachers (N=59) voluntarily participated in this study. Questionnaire data from sixty-six (N=66) supervisory teachers were used in the analysis. Each student teaches with two different supervisors, seven weeks in each placement. A supervisor may work with an undergraduate during one placement and a graduate during another. Hence, data may have been collected from any particular supervisor for either one or two students.

A 31-item questionnaire was developed, requiring students to rank their responses on a Likert scale ranging from 1 to 7, administered before and after 14 weeks of student teaching. The questionnaire items asked about perceptions of the following areas: capabilities to teach specific subject matter (social studies, science, mathematics, language arts), differing teaching approaches and planning/grouping methods, and the effects of different course work (education, liberal arts) on their training.
Data Analysis

Questionnaire data were analyzed in the following ways:

1. Descriptive statistics in the form of frequency ratings for all questionnaire items.
2. Non-parametric statistics on the pre- and post- student teaching questionnaires to determine if the observed changes in students' responses represented meaningful differences: Mann-Whitney U Analyses of Variance
3. Descriptive statistics on all items for the supervisory teachers

(The questionnaire and a full report of all statistical treatments are available from the authors.)

Results

Results of the data analyses indicate that the student teachers in this study began quite confidently in their beliefs about their education, training and ability to teach. Before student teaching, more than half of both groups rated themselves at ranks of five or better on the scale on their capabilities in teaching strategies and functioning in the classroom. Their confidence in teaching subject matter varied more, since individual backgrounds and academic majors differed considerably.

Furthermore, their confidence grew as they taught. After the undergraduates and graduate students completed two student teaching placements they felt even more positive, about their ability to teach elementary subjects, to use specific teaching methods and strategies, and in general classroom functioning. On the comparisons from pre-to-post-student teaching, all items in these areas were significant at the p < .05 level of the Mann-Whitney U Analysis of Covariance score (two-tailed). Undergraduate
students were also more confident than the graduates at the post-questionnaire point on all questionnaire items at the p < .05 level (two-tailed). Items concerning the effects of college course work on teaching yielded mixed results, although all were in the positive direction.

However, data from the supervisory teachers' ranking of the two groups of student teachers after student teaching indicate differences in perceptions. The supervisors conveyed a positive belief about undergraduate student teachers' general preparation to teach: 76% of the supervisory teachers of undergraduates ranked their students at the 6-7 level (general preparation to teach) on the Likert scale. Only 40% of the supervisory teachers of graduate students did the same. Table I illustrates the differing perceptions of the supervisors.

Supervisors ranked their undergraduate students higher than graduate students. On each subject matter area except science, and on functioning in the classroom, as seen in Table 2, these differences in ranking of the two groups of students were significant on the Mann-Whitney U Analysis of Covariance at the p < .05 level (two-tailed p). The supervisors ranked undergraduates higher on the other items as well, although not to such a great degree.
Discussion

Two broad factors may account for the perceived greater confidence and better preparation of the undergraduate level student teachers as opposed to the graduate level student teachers: practica experiences and integration of the sequence of course work. First, the undergraduates have practica associated with virtually every education course. Prior to student teaching, undergraduates have completed over 400 hours of work in elementary school classrooms. Second, the undergraduate course work follows a sequence for three years prior to student teaching. This, with the practica, may provide a more integrated approach to learning to teach, particularly by continuously combining theory and practice.

The implications of the first portion of the results seem clear. The student teachers in this study were more confident in their capabilities after they had experience with students in elementary classrooms. Furthermore, those student teachers with more experience were also more confident after student teaching. The second portion, concerning the supervisory teachers, is less clear in its implications. Questions arise about the content of the ideas of capable teaching that underlie the ratings. It is possible that the undergraduates are more effective in their student teaching and in overall classroom management. Early teaching experience in the practica and integrated knowledge can be important in approaching and carrying-out novice teaching.

However, this does not mean that higher ranked student teachers will eventually become better teachers. More traditional and conservative practices may be the factors
field experience

that supervisory teachers rated more highly for the undergraduates. In other words, the undergraduates may appear to the supervisors to be more like themselves, than do the graduate students who have not had extensive practica experience. Possibly, graduate students gain in confidence after their student-teaching experience, and are more innovative and less wedded to traditional and more conservative practices. They may also be more open to learning pedagogy as they progress. These are important and complex issues. Clarifications and studies of the beliefs and pedagogical concepts of supervisory teachers are warranted.

From the perspective of teacher educators, it is encouraging that new teachers believe in themselves and value the pedagogy learned in their professional studies. However, it is neither sufficient for new teachers to learn from experience, nor to master the required number of education courses. Novice teachers need to have an active conceptual and pragmatic interaction during their pedagogical education. Further, good teachers need to have a rich understanding of teaching practices, broad world knowledge, and constant curiosity to learn more.

References


Table 1

Rankings by Cooperating Teachers (CT) and Student Teachers (ST)

How do you feel about your general preparation to teach?¹

<table>
<thead>
<tr>
<th>Rankings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>CT</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2-3</td>
</tr>
<tr>
<td>4-5</td>
</tr>
<tr>
<td>6-7</td>
</tr>
</tbody>
</table>

¹ = numbers in table indicate percentage of cooperating teachers and student teachers placing the student teacher or themselves at this rank of the Likert scale.
Table 2
Differences in Perceptions Between the Cooperating Teachers of Undergraduate and Graduate Student Teachers

<table>
<thead>
<tr>
<th></th>
<th>Mean Rank</th>
<th>U Score</th>
<th>2-tailed P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate/Graduate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(14) Teach Language Arts</td>
<td>42.46/28.73</td>
<td>379.0</td>
<td>.01</td>
</tr>
<tr>
<td>(15) Teach Integrated Reading &amp; Writing</td>
<td>41.78/26.69</td>
<td>329.0</td>
<td>.004</td>
</tr>
<tr>
<td>(16) Teach Social Studies</td>
<td>36.91/26.19</td>
<td>319.0</td>
<td>.02</td>
</tr>
<tr>
<td>(17) Teach Math</td>
<td>40.41/30.19</td>
<td>403</td>
<td>.05</td>
</tr>
<tr>
<td>(18) Teach Science</td>
<td>35.77/26.</td>
<td>309.5</td>
<td>.0576</td>
</tr>
<tr>
<td>(19) Teach Health</td>
<td>30.18/17.43</td>
<td>141.5</td>
<td>.004</td>
</tr>
<tr>
<td>(20) Function in Classroom</td>
<td>41.88/31.80</td>
<td>446.5</td>
<td>.05</td>
</tr>
</tbody>
</table>

P < .05