This paper compares the professional beliefs and teaching behaviors of traditional and nontraditional/adult teacher candidates during their student teaching experience. Data for the study came from 45 elementary student teachers’ structured, weekly autobiographical critical reflections written during their student teaching. Participants were predominantly white females who ranged in age from 20 to 47 years. The reflections facilitated their ability to examine their assumptions, operational theories, and focus issues, illustrating the self-evaluation dynamics of becoming critically reflective beginning teachers. Students were given structured questions that guided their weekly reflections. Analysis of the journal entries, observations of student teaching, and pre- and post-lesson interviews provided data for the study. Results indicated that there were marked differences in the developmental process of becoming a teacher. Most nontraditional students entered the experience with more self-confidence and were convinced they wanted to teach after a week in the schools, whereas most traditional candidates expressed doubts about ever becoming teachers. Despite their doubts, the traditional students were rated as highly as their nontraditional counterparts in the teacher education program’s competencies and requirements. Nontraditional students viewed and interacted with cooperating teachers as peers and friends, whereas traditional candidates felt they could not overstep boundaries. Nontraditional candidates were more career focused. (Contains 25 references.) (SM)
CRITICAL REFLECTIVE TEACHING: A CONSTRUCTIVIST APPROACH TO PROFESSIONAL DEVELOPMENT IN STUDENT TEACHING

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Dr. Yvonne E. Rodriguez
Professor of Education

Dr. Barbara R. Sjostrom
Associate Professor of Education

Ms. Idalis Alvarez
Student Teacher Researcher

Areas of Specialization:
Adult and Continuing Education,
Management and Organization
Pre-service Teacher Education
Curriculum and Instruction;
Multicultural Education;
Bilingual/ESL Education;
Outcomes Assessment;
Urban Education

Rowan University
201 Mullica Hill Road
Glassboro, New Jersey 08028-1701
New Jersey 08028-1701
(609) 256-4500 x 3807 or 3811 (o)
(609) 783-5970 (h)
Fax: (609) 256-4918
E-mail: Rodriguez@Rowan.edu

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ABSTRACT

CRITICAL REFLECTIVE TEACHING: A CONSTRUCTIVIST APPROACH TO PROFESSIONAL DEVELOPMENT IN STUDENT TEACHING

Teacher educators use critically reflective teaching techniques as metacognitive tools to facilitate their ability to study and understand how nontraditional/adult and traditional student teachers acquire professional knowledge, develop teaching practice, and ultimately become teachers. Weekly critical reflections of autobiographical experiences in the student teaching placement were the main data source. These reflections facilitated the teacher candidates' ability to examine their assumptions, operational theories, and focus issues. They illustrate the self-evaluation dynamics of becoming a critically reflective beginning teacher. The findings provide insight into the professional development of nontraditional and traditional teacher candidates. They also provide evidence for teacher educators to build trust and establish authentic needs and purposes for diversifying coaching for mature students during the student teaching supervision.

This study will appear in The Journal of Teacher Education, Volume 49, No. 3, May - June Issue
Critical Reflective Teaching: A Constructivist Approach
To Professional Development In Student Teaching

The professional education of the nontraditional adult teacher candidate requires the implementation of strategies that are aimed at creating a learning environment that allows for the inclusion of multiple perspectives, democratic principles, sound pedagogy, and critical thinking. "Facilitating adult learning is a very complex process that incorporates diverse paradigms of thought" (Galbraith, 1991, p. ix). The process requires a metacognitive understanding of varying worldviews, shifting expectations, diverse learning styles, personalities, levels of sophistication, and numerous cultural and ethical backgrounds. Different approaches are often necessary with adult learners because of the diversity, varying intellectual domain levels, and extensive past experiences that traditional university students do not have. Although one can make a strong case that all learners are unique, adult learners differ in that they come to teacher preparation programs with a clear set of goals and a sense of themselves which have been shaped by their cumulative life experiences.

In this paper, we compare the professional beliefs and teaching behaviors of traditional and nontraditional/adult teacher candidates, while focusing our attention on the nontraditional/adult teacher education candidates. Using structured, weekly students' autobiographical critical reflections as a strategy during student teaching, we built trust and established authentic needs and purposes for coaching novice teachers in their professional development.

The adult education literature identifies adulthood at age 25 and beyond. For purposes of this study, nontraditional adult teacher candidates are preservice teachers over the age of twenty-
five who have experienced some intervening variables such as participation in the workforce, child rearing, military service and/or post-secondary training. These experiences, in turn, provide adult beginning teachers with skills and competencies that are transferable to the process of becoming a teacher. As teacher educators, if we accept the premise that teaching methods are highly influenced by the teacher's perceptions and beliefs, then we must carefully address the professional preparation of nontraditional adult teacher candidates, since their beliefs and operational theories may be more ingrained, than those who lack their maturation, knowledge, and life experiences. How teacher candidates view themselves, their work, and the world is highly influenced by their social, political, and cultural context and they may not be aware of this. Nontraditional/adult teacher candidates may need strategies that will help them become conscious of the consequences of their attitudes, values, beliefs, and rules, long taken for granted, by which they make sense of their world. They may also need structures that facilitate questioning whether or not their traditional ways of doing things produce the results they want to achieve in their teaching.

Purpose

In this paper, we describe major characteristics of the professional development of a sample of traditional and nontraditional/adult teacher candidates during their student teaching experience. As teacher educators, it was our purpose to use critical reflection as a teaching, metacognitive tool to facilitate their ability to understand how one acquires professional knowledge, develops teaching practice, and ultimately becomes a teacher. We further wanted to expedite their comprehension of the relationship between teachers' beliefs about teaching and learning and their pedagogical decisions. As teacher researchers, it was our purpose to use critical reflection as a data collection tool for helping student teaching supervisors study the professional
growth and development of beginning teachers and to compare the traditional and nontraditional adult teacher candidates. Thus, it was our purpose to (1) identify and document the underlying assumptions, focus issues and self-evaluation dynamics of becoming a critically reflective beginning teacher; and (2) how these affect professional development for two groups.

Theoretical Framework

Research in teacher education has found that preservice programs need to move beyond the transmission of facts to teaching the process of learning (Campbell, 1996). Teacher education programs must prepare future teachers for lifelong learning and professionalism. If our teacher candidates are to become inquiring educators; they must develop an ethos of intellectuality about teaching. One of the best ways to scaffold learner cognition is by encouraging active, meaningful learning. Bruner, Piaget, and Vygotsky advanced the theory that cognitive processes develop based on experience. Critical reflection scaffolds well-reasoned decisions, problem solving, and fair mindedness (Brookfield, 1995; Beyer, 1988; Paul, 1988; Schon, 1987, 1991). Gramsci's description of intellect based on life experience suggests that experience advances intellectuality through rational analysis and critical awareness. From the beginning of their professional careers, student teachers, especially the nontraditional adults, can empower themselves to strive for professionalism and decision-making/problem solving by examining their assumptions and school culture in a way that is authentic, personal, and meaningful.

Critically reflective teaching and learning contributes to student empowerment and conceptual change. As defined by Ross, Bondy, and Kyle (1993), reflective teaching is "making rational and ethical choices about what and how to teach and assuming responsibility for those choices" (p. iv). In a review of the literature on critical pedagogy and reflective teaching,
Rodriguez, (1996) concluded that "reflective teaching is a process requiring the practitioner to have a particular set of attitudes and abilities which include: (1) An openness to the cognitive and social construction of learning; (2) the active role of the learner in constructing meaning; (3) an openness to multiple perspectives; and (4) building on the learner's background knowledge and experience in promoting critical thinking and learning. These characteristics influence the quality of teacher reflection and the set of criteria teachers use to evaluate their decisions" (p. 1).

In our previous study of culturally responsive teaching (1995), we found urgency in the need to restructure and revise teacher education preparation programs to infuse diversity in both theory and practice. Part of diversity is the need to accommodate the nontraditional/adult teacher education student. There is a gap in the teacher education research related to age as a key element of diversity in teacher preparation programs. While reporting on postbaccalaureate field experiences, Lange (1995) states that teacher education programs must use a variety of strategies to restructure or reorient their responsibilities for the preparation of postbaccalaureate, nontraditional teacher candidates. Mulkeen and Tetenbaum (1987; 1986) describe certain characteristics of the 21st Century that elicit professional development from preservice through career ladder skills and open-ended continuing professional development. These trends will have significant implications for the teaching profession and to some extent, the nontraditional teacher education student exemplifies them.

Sprinthall, Reiman, and Thies-Sprinthall (1996) identified three models that have been used in the delivery of professional development programs. These models are the direct model (direct instruction approach), the expert model (expert advice approach), and the interactive model (collaborative approach). We have selected the use of the interactive model coupled with
critically reflective teaching as our conceptual framework for this study. The interactive model "seeks to include the [student] teacher as an active participant in the professional development process" (Byrd, 1997, p. xiv). A collaborative relationship exists among the cooperating teacher, the student teacher, and the university supervisor. All are encouraged to cooperate in the facilitation of the student teacher's professional development. "In addition, the interactive model also encourages the teachers to be reflective about their practice and their role in the profession" (p. xv). This model of supervision and professional development fits well with adult education principles and critically reflective teaching theory.

**Data Source**

Forty five elementary education preservice teacher candidates enrolled in their student teaching course at Rowan University, an NCATE accredited teacher education program, volunteered to participate in the study. The participants ranged from twenty years to forty-seven years of age. There were three male students and forty two female students. Of these, two students were African American, one Asian, one Latina, and the remaining students were white. The sample reflected the demographics of the national teaching force in terms of gender, race, age, class, and ethnicity for elementary education teachers.

The nontraditional adult teacher candidates sample totalled 18 participants. Seventeen are female and one is male. Several students were postbaccalaureate and the majority were first generation college students. Although the focus of this paper is on the nontraditional students, data were also collected and analyzed on the traditional student teachers for purposes of studying professional growth and comparing perceptions and experiences of the two groups.
Methodology

The data reported in this study are part of a broader project that examined how critically reflective teaching addresses matters of diversity in curriculum, instruction, and professional development. Data were collected for one academic year over two sixteen week semesters. Forty-five preservice teachers were followed into their student teaching placements in public school classrooms for five days a week. Autobiographical, critically reflective, journal writing was the main source of data. The subjects were given structured questions (see appendix) which guided their weekly reflections. In-class observations during student teaching as well as pre and post lesson interviews were also used to collect the data on critically reflective teaching and candidates' classroom performance. In this descriptive study, a content analysis was done independently by each of the two researchers who then compared their results. After reading weekly reflections, the researchers acting as teacher educators, identified that week's focus issues and used them in their coaching and supervision. In our role as teacher educators, our supervision focus was emergent as we analyzed the weekly reflections. As teacher researchers, we integrated the analysis of data with the other task and followed a qualitative design (Goetz & Le Compte, 1984). The written reflections, the bi-weekly student teaching observations, and interviews gave us the research focus issues. These guided us as to whom to visit next and what questions to ask in the field. We functioned as participant observers, keeping our teaching and research roles distinct. The analysis became more intensive once all the data were collected. Next, we compiled all the reflections and looked for patterns at specific weeks in the process and major focus issues during the student teaching experience, especially for the adult group. Participants over the age of twenty-five, with intervening life experiences, were aggregated for the purpose of
studying the nontraditional/adult teacher candidate.

Data collection and analysis were done simultaneously (Merriam, 1988). This allowed for organizing the data by issues, themes, problems of practice and chronologically. The emerging analysis formed a case record data base. The information was edited, redundancies sorted out, focus issues grouped and problems to be addressed during visitations identified. We wanted to write a case study of the whole process, rather than of each event.

Findings

Table 1 presents a comparative content analysis of the characteristics of nontraditional/adult and traditional student teachers based on the findings of the present study. The table summarizes the data elicited from the weekly critical reflections across eight characteristics for the nontraditional/adult and the traditional student teachers. Data were extensive and consistent in revealing the characteristics described in the table. As revealed in the critical reflections utilized in this study, the vast majority of the student teachers (n=45) fit the descriptions for their respective group (nontraditional or traditional). There were two anomalous cases in which the tractional student teachers manifested several of the characteristics of the nontraditional/adult sample (e.g. career/job focussed, student/learner centered). In contrast, there were no anomalous cases in which nontraditional/adult student teachers fit the categories of traditional student teacher.
Table 1

Descriptive Comparison of Characteristics

of Nontraditional/adult and traditional student teachers

<table>
<thead>
<tr>
<th>Nontraditional/adult student teachers</th>
<th>Traditional student teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analytical about experience (indepth discussions, more questioning of beliefs, etc.)</td>
<td>1. Descriptive about experience (little detail or reflection included) [procedural/behavioral practitioner]</td>
</tr>
<tr>
<td>[reflective practitioner]</td>
<td></td>
</tr>
<tr>
<td>2. Self-initiating (more independent, inclined to assume professional teaching responsibilities early on)</td>
<td>2. Less self-initiating (more dependent on external feedback in assuming professional teaching responsibilities) [directed by other]</td>
</tr>
<tr>
<td>[self-directed]</td>
<td></td>
</tr>
<tr>
<td>3. Self-confident about goals, capabilities and desire to teach early in the experience</td>
<td>3. Less confident about goals, capabilities and desire to teach until later in the experience</td>
</tr>
<tr>
<td>[professional efficacy]</td>
<td></td>
</tr>
<tr>
<td>4. Student/learner centered early in the experience</td>
<td>4. Curriculum/lesson centered until late in the experience [focussed on teaching performance]</td>
</tr>
<tr>
<td>[focussed on learning and development]</td>
<td></td>
</tr>
<tr>
<td>5. Career/job focussed [future orientation]</td>
<td>5. Completion of experience focus [present orientation]</td>
</tr>
<tr>
<td>6. Perception of themselves as practitioners in need of time and practice [teaching as a developmental process]</td>
<td>6. Perception of themselves as students who need to learn the skills from scratch and within the semester timeframe [teaching as acquisition of skills]</td>
</tr>
<tr>
<td>7. Perceive mistakes as developmental, part of the process of trial and error, leading to success [enrichment]</td>
<td>7. Perceive mistakes as deficiencies working against overall success [deficit]</td>
</tr>
<tr>
<td>8. Aware of consequences of behavior vis a vis culture and politics of schools [future orientation]</td>
<td>8. Less aware of consequences of behavior vis a vis culture and politics of schools [present oriented]</td>
</tr>
<tr>
<td>9. Able to develop collaborative professional relationships [collegial, peer-like interactions]</td>
<td>9. Worked cooperatively but subordinate to cooperating teacher; hierarchical relationship [expert dependent]</td>
</tr>
</tbody>
</table>
The following section presents a representative sample of reflective comments from both samples of student teachers which illustrate and corroborate in more detail, the existence of and the types of differences between the two groups. It also adds empirical evidence to the eight characteristics as constructs or themes for understanding the differences between nontraditional/adult and traditional student teachers.

**Data on Nontraditional/Adult Teacher Candidate Sample**

The nontraditional teacher candidates appeared to enter the student teaching experience with a higher degree of self-confidence (#3) or acquire it early on in the semester. Related to this characteristic and frequently overlapping were those of self-initiation and assuming responsibility or taking charge (#2), and collaborative professional relationships with the cooperating teacher (#9). Overall, they indicated a level of comfort with taking on the challenges and tasks related to working with children. Some examples from the data include: *This week I was courageous. I decided to do a cooking activity: I think this was well worth the mess and yes, I would definitely do this more often; I tried to pay close attention to the daily math meetings. This will be my first serious teaching assignment. I am not nervous about the content. I am pleased with the math curriculum; I feel confident enough in my abilities to teach effectively. I've learned so much; As I reflect on next week (week 2), I am looking forward to teaching my first subject, English. I plan to make these lessons fun and informative; I had an idea to help the basic skills math class out in understanding the concept of rounding numbers. I need to share it with the teacher; My most exciting day so far. I accomplished something the teacher has tried to do for a long time. Hafsa, from Bangladesh talked. I coached her on how to perform a magic trick; In order to arouse their [students] curiosity to learn, I started bringing in an item of interest every*
day since the third day of student teaching. These examples demonstrate a high degree of eagerness to assume the responsibility of taking charge and confidence about their ability to handle more teaching and challenges and to collaborate. Noteworthy is that the examples come from the first quarter of the student teaching course.

The nontraditional/adult teacher candidates tended to focus on the learner and his/her needs and development rather than on how they were doing. Whereas, the traditional candidates focused on themselves. Evidence of the child/learner centeredness was abundant in the data. A sample included: When I started teaching social studies this week, I couldn't figure out how to explain to the students the meaning of Black history week. I was afraid that a student would ask why isn't there a white history or a Mexican history week? But none of them said that. The lesson went well and the kids seemed very interested in the subject; When I begin taking over the whole class, I would like to have challenging activities for the advanced students who always finish their work ahead of time; I believe that because of the many varied learning styles that the teacher needs to teach in a variety of ways; I noticed that one of the girls in the basic skills class takes her time and doesn't finish. I will discuss this with the cooperating teacher to see what she thinks; This week was a very rewarding one. I was very proud of the children. What am I talking about? Long division! There are so many learning styles within the class, I want to try different techniques to make sure I give every student an opportunity to learn (week 4).

These examples demonstrate the nontraditional teacher candidates' focus on reaching all children and enhancing their learning. It is interesting to note in analyzing the data that the nontraditional candidates tended to focus on children's learning over their own teaching from the very beginning or early in the student teaching experience (weeks 1-3). They were also more
willing to step out of the structure to try something else or take a risk with difficult concepts and strategies. In contrast, the traditional candidates were more focused on how well they were doing vis a vis teaching rather than whether the children were following them and "getting it."

In terms of perceptions about the mistakes they made or obstacles they encountered, the nontraditional candidates tended to see mistakes and trial and error as part of the norm of becoming a professional. They also saw themselves as practitioners who needed time on task and practice to perfect their training. Examples of these characteristics from the data follow: Deep down, I know I feel concerned/worried about whether I am doing/teaching this the right way. I can understand that there is no right way. My main goal is to meet a specific objective and I need to be flexible and allow for more student interaction; and This week was very interesting because my teacher was out sick and I worked with a substitute. I taught all day. I really enjoyed having total control of the classroom. These and numerous other examples indicated that the nontraditional candidates tended to look forward to, rather than be anxious or nervous about, what it takes to become a teacher and how to achieve this outcome. On the other hand, the traditional candidates tended to focus on teaching as a composite of discrete skills. They also indicated stress and anxiety about taking charge, and attempting challenging concepts or lessons.

Another characteristic which revealed differences between the two groups was that of peer or collaborative vs. hierarchical relationships with their cooperating teachers. By and large, the nontraditional candidates viewed and interacted with cooperating teachers as peers, colleagues, even friends. They perceived the cooperating teachers as "experts" but felt comfortable about asking to initiate, undergo scrutiny, question practices and suggest changes. Examples from data included: My cooperating teacher and I are getting along well. She is very
encouraging and makes me feel confident; My cooperating teacher has made me feel very
comfortable in her class. She allows me to run with an idea. For instance, when I noticed the
students having trouble with answering questions in complete sentences, I made up my own
activity. Ms. X thought it was a good idea. She also stated how excited she was that she had me
there to help. This was a marked contrast to the traditional candidates who frequently
commented that they didn't want to overstep boundaries, or try something different from the way
the cooperating teacher does it.

When it came to dealing with the politics and culture of schools, the nontraditional
candidates, in acting more like peers, seemed to fit in and understand their roles in the setting.
They indicated awareness of the importance of their behavior as professionals and the
consequences of acting otherwise as indicated by this example: I don't see myself having complete
control over the classroom during student teaching. I don't see my cooperating teacher giving
up reading and math. It is not that she thinks I'm doing a bad job--she thinks I'll be a very good
teacher. It's just that she loves teaching. I want to see what you think and how I should handle
this situation appropriately and delicately in order to complete all of the field experience
requirements. The traditional candidates, on the other hand, often showed a lack of skills in the
area of interpersonal communication and appropriate professional behavior within their settings.

Related to feeling like a peer and understanding the importance of context, nontraditional
candidates tended to be more career/job focussed than their traditional counterparts. Examples
from the data included: I'm getting my resumes out and shifting my job search into high
gear...I'm very excited and proud of myself for making it this far and finally feeling like I could
have my own classroom. and Now comes the hard part, finding a job. I hope I am able to. I feel
like a teacher, I think like a teacher, now, if only I can be one.

Another theme which surfaced with the nontraditional teacher candidates throughout the data is the constant involvement with the student teaching experience on and off site. One of the candidates even had an elaborate dream which exemplified this involvement. Further evidence surfaced in the student teacher reflections as follows: Today it hit me. I am eating, sleeping, dreaming and breathing teaching. Before I fall asleep at night, my head on the pillow, I am feverishly planning what I will do and say the next day in the classroom (week 4). Another student said: Again, student teaching reinforces my belief that I was born to be a teacher. Believe me, I know I have much to learn but I CAN and WILL succeed (Week 5).

Data on Traditional Student Teacher Sample

Traditional students seemed to build levels of self confidence (#3) primarily based on responses from cooperative teachers and college supervisors rather than from reflection on their performance. Furthermore, they tended to focus on their teaching more than on their students' learning until the latter weeks of student teaching. Numerous examples of these themes surfaced in the data including: I would like to be more creative. My problem is I don't know if I will be able to be creative with the students and have them learn the required material; My cooperating teacher and many teachers who have stopped in for various reasons and found me teaching have said that I am really developing a presence with the children and my confidence level is soaring; K [cooperating teacher] gives me a paper on which she has written what I have done well that day, and also what I can improve upon...This has been helpful to me because it also makes me reflect on myself and what I did that day (week 3); The cooperating teacher said she can see a difference. It's like I have a new burst of energy; I can't put my finger on exactly what is
troubling me, I just feel very incompetent. I am the type of person who needs a lot of feedback. My cooperating teacher is wonderful but she really doesn't say a whole lot in terms of where I stand in her eyes and if I am doing a good job or not (week 4); and I tend to panic before you (college supervisor) come and that makes more trouble sometimes because I get worried and want to change my mind at the last minute (9th week); and I must admit I'm nervous to be planning the whole day...I'm feeling overwhelmed with trying to complete my requirements for student teaching; As every day passes, I realize how difficult it is to be a teacher. I didn't realize how much planning is involved (6th week).

The above examples of traditional student teachers' responses to the themes of outside input, performance, and efficacy indicate that from early on (week 3) through much later (week 9), the teacher candidates tended to rely on feedback from cooperating teachers, supervisors and others in defining their success, progress, and self-confidence. In addition, they tended to reflect much more on their teaching than on their student's learning. In this respect, the traditional student teacher data support studies on novice/veteran teachers whereas the nontraditional student teachers, as a group look more like veterans even though they are also novices.

Unlike their nontraditional peers, the traditional students tended to express more anxiety about whether or not they are cut out to be teachers and will be professionally successful. Some examples of the doubts and anxieties expressed by the traditional teacher candidates were: My cooperating teacher was upset with me because of my time management and my pronunciation of words and I began to question the profession I am pursuing (week 5); I can only hope that the students will appreciate me and give me a chance. I do hope that I can figure all of this out, teach and complete my assignments all within the next fifteen weeks (week 1); I just worry
because I doubt myself. I want to make student teaching the most successful experience of my college career but I am constantly worrying that I am not doing well enough (week 2); Today, the thought ran through my mind that I really wasn't sure if I wanted to be a teacher anymore. I know that this sounds so very pessimistic, but I don't mean for it to be, I'm just being honest and reflecting on my feelings. (week 2); and "This week something occurred which I knew would happen some day. I gave a lesson that bombed...I must admit that I get slightly discouraged when I see my cooperating teacher teach lesson. I sit back and wish I could be as effective as she is. Will I ever get there?

Although most of the traditional candidates expressed a passion to teach and a desire to work with children, occasionally doubts surfaced and rarely did they express the "eating, sleeping and dreaming teaching" or the "born to "teach" comments that were prevalent in the nontraditional sample. Interestingly, by the last weeks of student teaching many of the doubts dissipated. For example, the final reflection of one of the traditional candidates who expressed serious doubts every week, illustrates efficacy, student learning centeredness, and a perception of professional development: The only thing I can compare my growth to is a sponge. I feel like I have gone through the past few months like a sponge just "sucking up" as much information as was available. Everything that was a huge obstacle for me in the beginning, has straightened out now, and I feel confident and in control when I am teaching. No longer is my main concern with getting through the lesson, but rather the main concern is "are they understanding and synthesizing the information?"

These examples illustrate some of the traditional teacher candidates' apprehension about teaching while showing their desire to reach a particular goal. They tended to express more
feelings of being scared or unsure rather than challenged by taking over major segments of the student teaching experience. In contrast, the nontraditional candidates tended to express feelings of looking forward to the challenges of taking on more.

The traditional teacher candidates were less future or job oriented as a group than their nontraditional counterparts. They focussed on one week at a time, one task at a time and the completion of student teaching in and of itself. Examples follow from the data: *It's such a relief to be so close to graduation that I never really thought about getting a job. My mentality is to finish student teaching first and then get a job; I just want to rest and think about the next steps in looking for a job; and I want to work at my present job awhile and approach the job search after a break.*

The data in the study indicated that the traditional teacher candidates tended to see themselves as students who need to learn everything and who perceived mistakes as obstacles to their success. Examples included: *My mind is constantly thinking about what has to be done and I feel so overwhelmed. I just keep looking through my student teaching handbook and talking to my cooperating teacher about all of the work that has to be done. I'll never be able to do everything. I watch my cooperating teacher and wonder how I'll ever be able to teach like that. I just keep trying to tell myself that the point of my being there is to learn and that to a certain point, people expect me to make some mistakes. I just hope that I can correct them, because once you are aware of your mistakes, there is no excuse for making the same ones.*

According to the data, this group of traditional teacher candidates also tended to be less aware or concerned about the culture of school or the consequences of their behavior. Examples related to this characteristic and based on a response to the supervisor's comments on attendance,
recommendations and securing jobs, traditional candidates responded as follows: *I know I should be at school early but I have other priorities as well and I will probably work in another district anyway; I plan to move to North Jersey to look for a job; or I am also taking two courses.*

Overall, the traditional group appeared more concerned with completing whatever tasks were necessary for successful completion of their student teaching experience rather than in professional efficacy or long term planning for their future. It should be pointed out, however, that some traditional candidates, as they approached week 14 gained confidence and focussed on career goals and professional efficacy.

In summary, one of the key findings was that though all successful teacher candidates in this program accomplished the program objectives for certification as elementary teachers by the end of the sixteen week student teaching experience, the process was markedly different for the two populations. The nontraditional students seemed to move through the process with less anxiety, and after a few weeks in the schools. The traditional students indicated anxiety about the experience throughout the sixteen weeks. By the tenth week of student teaching, after significant coaching and encouragement from the cooperating teachers and college supervisors, they became more comfortable. It is interesting to note that the cooperating teachers working with nontraditional students frequently commented on how their experience and maturity made their adaptation and performance exceed expectations, especially in the first ten weeks. The cooperating teachers expressed a sense of comfort about turning over the children to these novices sooner in the experience than those working with the traditional students. They commented that the traditional students were enthusiastic, and competent but tended to be more insecure about their performance and to depend more on the cooperating teacher for cues as to
what to do next, how they were doing, was it okay to move on to science, and so on. By week
ten, most cooperating teachers stated that they were comfortable turning their classes over to the
traditional students.

**Discussion**

Extensive data from both the traditional and nontraditional/adult students regarding their
perceptions about their professional development, performance and adaptation within their
settings showed marked differences in the developmental process of becoming a teacher. This
substantiates a need for further research on how to facilitate the professional development of the
two groups with varying strategies, coaching techniques, and forms of communication. These
data suggest that university supervisors and cooperating teachers should employ a developmental
perspective which views students teachers as passing through stages of growth as they mature
professionally. These stages and the time it takes to master the skills in them may vary and be
influenced by the maturity, diverse learning styles, personalities, levels of sophistication, and
experiential backgrounds of the candidates. In addition, the multiple interactions among university
professor, cooperating teacher, student teacher, and elementary students makes the process of
becoming a teacher a dynamic one. Each stage includes and transcends the previous one and
contributes to the continuum of professional development.

Most of the nontraditional students were convinced they wanted to teach after a week in
the schools, whereas the majority of the traditional candidates expressed doubts and several even
completed their student teaching wondering whether they would actually become teachers.
Interestingly, most of the traditional students who expressed these feelings were rated as highly as
their nontraditional counterparts in our teacher education program's competencies and
requirements. This may be due in part to the learner outcomes for the student teaching experience. Once these goals are achieved, all student teachers successfully complete are program and are recommended for licensing. The measures used for entrance into the profession usually do not look for depth of analysis, challenging conceptions, and professional efficacy. The measures tend to be centered on teaching behaviors, not values and beliefs about teaching or how these enhance or detract from development.

The findings from this study suggest that differences in the process of acquiring professional development should not be treated as deficits or benefits of one group over the other but merely as development which requires different strategies and perspectives. Surely, if we demand that our teacher candidates be prepared to work with children who manifest such differences, we can expect ourselves, as teacher educators, to address such differences and perspectives in our teacher candidates.

In addition to the study findings regarding the differences between the two groups, these data add to the knowledge base on the effective use of reflective writing for gaining insight into the process of becoming a teacher for two different populations of student teachers; namely, the traditional and nontraditional. Relevant to teacher education, we found that critical reflection on autobiographical classroom experiences is a clear, concise, and authentic process for teaching future teachers to become reflective practitioners. Since the process involves introspection and consciousness raising, it provided a structure for clearly defining their vision and goals for praxis and professional development. This professional introspection "may change the way one thinks about teaching, the relationship between teaching and learning, and the profession of teaching as work" (Putman & Burke, 1992, p. 85). For example, it may mean examining certain practices,
like tracking, that have been particularly damaging to members of oppressed or non-mainstream
groups. "An educational activity is successful to the extent that it encourages people to think
critically" (Brookfield, 1990, p.200). Thus, teacher education faculty need to model and
encourage critical thinking and the use of strategies and assignments that promote critical analysis
and accelerate professional development. Nontraditional/adult teacher candidates need an
experiential base for authentic reflection that helps construct pedagogical experiences into
metacognition to promotes professional growth. These can be analyzed, shared, and put into a
larger socio-political context.

**Implications for Teacher Education**

The implications of these findings regarding traditional and non-traditional teacher
candidates are numerous and far-reaching: (1) teacher preparation programs need to customize
their roles and coaching techniques bearing in mind the differences in maturation levels and how
the experience is processed by these two groups; (2) teacher preparation programs need to collect
data profiles which highlight life experience and student perceptions/expectations for the student
teaching experience prior to entering the field placements to better accomplish #1 above; (3)
college/university supervisors need to work more closely with cooperating teachers in providing
them with background information about the differences in the process for the two groups in
order to coach them differently towards professional development; (4) college/university
supervisors need to prepare traditional and non-traditional student teachers for potential
differences, obstacles and enhancers they may experience in the process of professional
development in order to provide realistic expectations, optimal development and efficacy for both
groups; and (5) teacher educators need to become acquainted with the adult education literature
to better understand the experience of the nontraditional students.

This study demonstrates that teacher educators can find ways of exploring how their teacher candidates experience learning and the teaching/learning act. It also shows means by which teacher educators can make their professional practice more sensitive to grounding teaching in learning. Using critically reflective teaching journal writing and pre and post lesson observation interviews, teacher educators can gain insight into the professional development process of each teacher candidate rather quickly during the student teaching experience.

This study used a process which encourages active and meaningful learning conducted in an open and inquiring manner. The teacher educators and the teacher candidates act as learners about their own teaching as they strive for personal and professional growth. Critically reflective teaching/learning encourages and scaffolds lifelong learning. It is a vehicle for examining paradigms that have significantly influenced education in a more authentic way that might better suit the adult learning transactional process (Brookfield, 1995; 1990; and Marsick & Watkins, 1991). As facilitators of adult learning, we are truly committed to life long learning, not as a system, but as a principle upon which the overarching process of learning is founded.

References


We gratefully acknowledge the critical assistance of Christine Bose, The University at Albany, SUNY and David Kapel, Rowan University during the development of this article.
Table 1
Descriptive Comparison of Characteristics
of Nontraditional/adult and traditional student teachers

<table>
<thead>
<tr>
<th>Nontraditional/adult student teachers</th>
<th>Traditional student teachers</th>
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<tr>
<td>1. Analytical about experience (indepth discussions, more questioning of beliefs, etc.) [reflective practitioner]</td>
<td>1. Descriptive about experience (little detail or reflection included) [procedural/behavioral practitioner]</td>
</tr>
<tr>
<td>2. Self-initiating (more independent, inclined to assume professional teaching responsibilities early on) [self-directed]</td>
<td>2. Less self-initiating (more dependent on external feedback in assuming professional teaching responsibilities) [directed by other]</td>
</tr>
<tr>
<td>3. Self-confident about goals, capabilities and desire to teach early in the experience [professional efficacy]</td>
<td>3. Less confident about goals, capabilities and desire to teach until later in the experience</td>
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<tr>
<td>4. Student/learner centered early in the experience [focussed on learning and development]</td>
<td>4. Curriculum/lesson centered until late in the experience [focussed on teaching performance]</td>
</tr>
<tr>
<td>5. Career/job focussed [future orientation]</td>
<td>5. Completion of experience focus [present orientation]</td>
</tr>
<tr>
<td>6. Perception of themselves as practitioners in need of time and practice [teaching as a developmental process]</td>
<td>6. Perception of themselves as students who need to learn the skills from scratch and within the semester timeframe [teaching as acquisition of skills]</td>
</tr>
<tr>
<td>7. Perceive mistakes as developmental, part of the process of trial and error, leading to success [enrichment]</td>
<td>7. Perceive mistakes as deficiencies working against overall success [deficit]</td>
</tr>
<tr>
<td>8. Aware of consequences of behavior vis a vis culture and politics of schools [future orientation]</td>
<td>8. Less aware of consequences of behavior vis a vis culture and politics of schools [present oriented]</td>
</tr>
<tr>
<td>9. Able to develop collaborative professional relationships [collegial, peer-like interactions]</td>
<td>9. Worked cooperatively but subordinate to cooperating teacher; hierarchical relationship [expert dependent]</td>
</tr>
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STUDENT TEACHING WEEKLY REFLECTION GUIDE

Developed by Yvonne E. Rodriguez and Barbara R. Sjostrom

The following questions will serve as a guide for your weekly critical reflections on your student teaching experience. Feel free to expand, explain, and interpret further as needed.

(1) What were some of this week's highlights in terms of your development as a teacher?

(2) What were some of the obstacles which impeded your progress this week?

(3) What were some breakthroughs you had that fostered your knowledge or teaching practice this week?

(4) In comparing your experience this week, previous weeks, what stands out in your mind as improvements or mastery of techniques for planning, teaching, management, etc.?

(5) What action did you initiate which scared, worried, pleased or otherwise affected you? Why do you think you felt this way?

(6) Is there anything you wish you had done differently this week? If so, what and why do you feel this way?

(7) Is there anything in particular that you need your supervisor(s) to address this week or during the next visit?

(8) Additional comments or concerns:
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Signature: Yolanda E. Gonzalez Rodriguez

Printed Name/Position/Title: Professor of Education

Telephone: (609) 1 56-4500 X 3807

FAX: (609) 2 56-4912

E-Mail Address: rodriguez@rowan.edu

Printed here to please: Yolanda E. Gonzalez Rodriguez

Organization/Address: Professor of Education

Rowan University

Education/Early Childhood Literacy

261 Milligan Hall, K-11

Glassboro, N.J. 08028

Date: 3/26/97

(over)