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What English/Language Arts Teacher Candidates Learn During Coursework and Practica: A Study of Three Teacher Education Programs

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Abstract

This study investigates the learning reported by a set of volunteer participants from three university teacher education programs: from one Southwestern U.S. University, the program in secondary English/Language Arts Education and the program in Elementary Education; and from one Southeastern U.S. University, the program in secondary English/Language Arts Education. Based on interviews conducted between the end of coursework and the beginning of student teaching, this study uses a sociocultural perspective to consider not only the manner in which the teacher candidates' learning was mediated by a host of factors, including formal teacher education courses and mentor teacher guidance, but also a wide range of factors that introduced competing conceptions of effective teaching. The interviews were analyzed collaboratively by the two authors, who relied on a sociocultural analysis attending to the pedagogical tools, attribution of learning to specific sources and the settings in which they were located, the areas of teaching in which the tools were applicable, and goals toward which the pedagogical tools were deployed. Findings suggest that even with the three programs having radically different structures and processes, the teacher candidates reported very similar learning, yet with variations conceivably following from their program structures. Furthermore, teacher education emerged as one of several sites of learning named by teacher candidates, rather than serving as their sole or even primary source of learning. The study concludes with a consideration of the many factors that contribute to teacher candidates' conceptual understanding of effective teaching and the role of teacher education programs within this vast complex of goals, epistemologies, and practices.

Keywords

teacher education, English education, apprenticeship of observation

A single powerful influence is often attributed as the source of teachers' pedagogical knowledge in teacher education research. Many, for instance, view the *apprenticeship of observation* (Lortie, 1975)—what teachers learn about teaching from their experiences as students—as the dominant experience in accounting for beginning teachers' instructional practice, often arguing that it overrides the effects of teacher education (e.g., Boyd, Gorham, Justice, & Anderson, 2013). Other studies (Gomez, 1996; Hallman & Burdick, 2011), however, find that teachers learn about teaching from a variety of sources, one of which may be the apprenticeship of observation, which Smagorinsky and Barnes (2014) found to be far less unitary and less conservative than is generally understood in teacher education studies.

In this study, we look specifically at what teacher candidates (TCs) from three university teacher education programs learned during their teacher education programs. We rely on interviews to explore the broad range of influences identified by TCs in shaping their conceptions of how to teach, rather than focusing on isolated, specific variables: the epistemology of assigned readings (Smagorinsky & Whiting, 1995), the consequences of community-engagement experiences (Burant & Kirby, 2002), the writing of literacy autobiographies (Florio-Ruane, 2001), and other particular explanations of pedagogical knowledge. The influences that our participants identified include not only deliberate programmatic interventions of the sort often studied by teacher education researchers but also such factors as the politics of school environment, the influence of students, and other elements often elided when looking for a single, overriding explanation.

We investigate the experiences of a subset of volunteers from three cohorts of preservice teachers in the United

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States: one Southwestern elementary education program, one Southwestern secondary English/Language Arts education program, and one Southeastern secondary English/Language Arts education program. We conducted interviews at the juncture between their coursework/practica and the beginning of their student teaching to understand what the TCs learned about teaching and what they attribute their learning to during their teacher education programs, which we understand to include both practica and coursework, prior to student teaching. More specifically, we inquire into the following questions:

1. What *pedagogical tools*—that is, the conceptual and practical means by which instruction is carried out, such as scaffolding, group work, journal writing, and other instructional means—did the TCs report learning about during their teacher education programs, including both coursework and fieldwork?
2. What *pedagogical areas*—that is, the responsibilities within a teacher's purview, such as assessment, curricular strands, classroom control, and other focuses and duties—did the TCs' pedagogical tool knowledge fall within?
3. To what *sources*—that is, the people or texts from which the TC reported having learned an idea, such as a mentor teacher (MT) in practica, a professor in teacher education courses, a course reading, or other informant or resource—did TCs attribute their knowledge about how to teach the English/Language Arts curriculum or Language Arts strand of the elementary school curriculum?
4. What did the TCs report that they did *not* learn from teacher education and practicum experiences?
5. To what extent were the three programs, each with a unique structure, similar to and different from one another in the participants' construction of their experiences? To what extent did the availability of stated goals for program graduates influence TCs' reports of what they learned during their teacher education programs?

Theoretical Framework

This study falls within the line of inquiry established by Smagorinsky (Smagorinsky, 1999; Smagorinsky, Cook, Jackson, Moore, & Fry, 2004; Smagorinsky, Jakubiak, & Moore, 2008; Smagorinsky, Shelton, & Moore, 2015) concerning the concept-driven developmental trajectories of beginning teachers, starting with their experiences during teacher education, and extending into their first jobs. The notion of human development adapted to this body of work follows from the social, cultural, and historical tradition established by Vygotsky (1934/1987) based on his work primarily with young children. Because his perspective is oriented to the ways in which human thinking is mediated by factors in the environment, rather than by age-based biological stages, his ideas are adaptable to people at older points in life. Bruner (1987) has pointed out that

> For Vygotsky unlike Piaget, there is no "stage" but only a progressive unfolding of the meaning inherent in language through the interaction of speech and thought. And as always with Vygotsky, it is a progression from outside in, with dialogue being an important part of the process. (p. 11)

Social mediation through speech and other means thus occurs throughout the life span and is amenable to study to account for the development of thinking, including thinking within particular communities of practice such as the teaching profession and its sites for learning.

Aspiring and early-career teachers, as we have noted, have often been represented in research as subject to a small set of influences: responsive mentorship during practica (Cherian, 2007), the integration of technology into teaching (Mouza, 2002), the use of experiential literary narratives to prepare teachers for multicultural teaching and to develop students' narrative imaginations (Phillion & He, 2009), and other interventions affecting their pedagogical thinking. Our work, in contrast, is attentive to the myriad of factors that beginning teachers are exposed to throughout the course of learning to teach and the likelihood that their abundance creates pedagogical dissonance for those entering the profession.

We have found that binaries such as the *two-worlds pitfall* (Feiman-Nemser & Buchmann, 1985)—which positions conservative schools against progressive universities for novice teachers' attention and loyalty—are too limiting to account for the many directions in which beginning (and veteran) teachers are pulled. We have described, for instance, the *multiple-worlds pitfall* experienced by beginning teachers (Smagorinsky, Rhym, & Moore, 2013), with neither schools nor teacher education programs necessarily providing unitary conceptions of teaching: Each instead includes competing beliefs about teaching available from a variety of stakeholders. Furthermore, factors well beyond the control of each contribute to teachers' thinking about how to teach, including federal policies (Cohen & Moffitt, 2010), state and local funding that may or may not provide sufficient resources (Biddle & Berliner, 2003), the dispositions of students toward schoolwork (Kaufman, 2004; Sleeter, 2001), and other mediators.

In this study, we focus on the university experience, up to the point of student teaching. We consider this setting to include (a) university coursework in education and the humanities (the latter primarily for secondary English/Language Arts rather than elementary education TCs), and (b) the related practica that take place prior to student teaching, which we include because it is undertaken under the auspices of teacher education and its supervision, and because it often involves a medium such as a seminar in which TCs

discuss their field experiences. Through our interviews with TCs at the juncture between these learning opportunities and formal student teaching, we investigate the mediators that shaped teachers' conceptions of effective instruction during their formal education about how to teach.

In previous work, we have detailed the problem of concept development in learning to teach as a decidedly nonlinear pathway, originally positioning it as a "twisting path" (Smagorinsky, Cook, & Johnson, 2003) based on Vygotsky's (1934/1987) metaphor. We have since revised our adaptation of this analogy, because it assumes that a clear destination is available at the end of the path. The pathway, however, is too obstructed and pulled centrifugally by competing centers of gravity to be directly traversable or to have a distinct endpoint (Smagorinsky et al., 2013). The revisions became necessary because our studies showed that the competing notions of effectiveness within which TCs learn to teach are so powerful and contradictory that the notion of a stable endpoint is chimerical (Smagorinsky, 2013).

For example, let us take a hypothetical TC in a university program. The educational psychology course might emphasize Piagetian constructivism in conjunction with information processing accounts of cognition, each of which emphasizes biological factors in learning and development and minimizes social factors. The TC might simultaneously be enrolled in a teaching methods class that takes a sociocultural perspective grounded in Vygotsky's (1934/1987) notion of social mediation as the primary factor in thinking, speech, and human development; here, biology and approaches like "brain-based" teaching (Jensen, 2008) become less important than social contexts in human development. This same student might take English literature courses that emphasize the professor's invocation of an authoritative literary theory as the primary lens for interpreting texts, and at the same time take an English/Language Arts Education course in which the professor distributes interpretive authority among the students through book club discussions (see Addington, 2001, for just such a study), suggesting two very different conceptions of the role of teachers in students' literary engagement. All of these contradictions take place in one of the two worlds of Feiman-Nemser and Buchmann's (1985) pitfall, suggesting far less agreement in either world than is typically assumed.

Many more contradictions of this sort typically complicate the conceptual pathway of a beginning teacher throughout university studies. Field experiences introduce many conflicting conceptions as students experience the school culture, itself rife with contradictory and competing notions of effective practice. One colleague might emphasize the development of "life skills" among students who are less likely to attend college (Smagorinsky et al., 2008); another might embrace formalism in students' engagement with texts (Smagorinsky, Lakly, & Johnson, 2002); yet another might see school as a character-building environment (Smagorinsky, Boggs, Jakubiak, & Wilson, 2010); and another may encourage freewheeling instruction in spite of the specter of high-stakes writing examinations (Johnson, Smagorinsky, Thompson, & Fry, 2003). Schools in turn are situated within district, state, and national political landscapes whose values and imperatives provide endpoints for instruction that are often at odds with those emphasized in teacher education.

The study we report in this article focuses on what students in three different university teacher education programs report having learned from the range of influences encountered during their studies and related field experiences. We confine our attention to this limited period to investigate the degree to which teacher education and its two primary sites—university courses and field experiences—help to shape TCs' thinking. We next explain our method of investigation into the 19 TCs who volunteered for this study and their experiences in their three teacher education programs.

Method

Participants

Participants were enrolled in the teacher education programs in their U.S. state namesake universities. Upon gaining permission from the appropriate course professors in the programs, the second author visited teacher education classes to recruit participants from each of three teacher education programs. The resulting set of volunteers from each program signed consent forms to participate in a study of their language arts instruction, six from the Southwestern University elementary education program, six from the Southwestern University secondary English education program, and seven from the Southeastern secondary English education program. In addition, the programs' professors provided course syllabi, schedules, and other documents to help the research team construct the programs' structures. See Table 1 for the participants' profiles; all names are pseudonyms.

Data Collection

The interview prompts for soliciting the participants' learning about teaching during their education programs were adapted from Grossman (1990) and attended to the two areas of influence that we anticipated would provide the majority of their knowledge about teaching during their university education: preservice coursework and field experiences. (The interview protocols are available in the appendix. The interviews also included questions about general teaching philosophy and prior educational experiences; these questions provided the focus for separate studies, yet were also read for this study to see whether they provided answers to the questions motivating this investigation.)

Data Analysis

Formal coding and tabulation. To consider the effects of the three different program structures, we began by clustering

Table 1. Participants.

Name (pseudonym)	Program level[a]	Age	Race	Sex[b]	Taught by second author
Southwestern U.S. University Elementary Education Program					
Holly	BSEd	Early 20s	European American	Female	No
Jessica	BSEd	Mid 30s	Native American	Female	No
Sharon	BSEd	Early 20s	European American	Female	No
Sarah	BSEd	Early 20s	European American	Female	No
Tamara	BSEd	Early 20s	African American	Female	No
Tonya	BSEd	Late 20s	European American	Female	No
Southwestern U.S. University Secondary English Education Program					
Denny	BSEd	Early 20s	European American	Male	Yes
Doris	BSEd	Early 20s	European American	Female	Yes
Gaea	BSEd	Early 20s	European American	Female	Yes
Jack	M.A.T.	Late 20s	European American	Male	Yes
Laney	BSEd	Early 20s	European American	Female	Yes
Leslie	M.A.T.	Early 20s	European American	Female	Yes
Southeastern U.S. University Secondary English Education Program					
Amanda	M.A.T.	Early 20s	European American	Female	No
Ainsley	BSEd	Early 20s	European American	Female	No
Jenn	BSEd	Early 20s	European American	Female	No
Nicole	BSEd	Early 20s	European American	Female	No
Reggie	M.A.T.	Late 20s	African American	Male	No
Shannon	BSEd	Early 30s	European American	Female	No
Tracy	BSEd	Early 20s	European American	Female	No

Note. TC = teacher candidate.
[a]We use BSEd to refer to undergraduate certification (Bachelor of Science in Education) and M.A.T. to refer to master's-level certification (Master of Arts in Teaching), even though these titles were not used uniformly across programs.
[b]We use this category in the traditional sense of "sex assigned at birth" while recognizing that humans may fall within a wider range of identities. The study's methods did not include attention to gender identification or expression, and the participants did not refer to their identity during the interviews. We categorized them according to available TC-provided demographics and how they presented themselves, much as we did in approximating their ages. We thus present this category of information to provide a very general sense of the sex distribution of the participants.

interviews by program. We then collaboratively read and coded each of the 19 interviews. This form of collaborative coding provides a form of reliability that takes into account the dialogic nature of decision making, allowing the coding scheme to evolve through continual discussion, coding, and refinement (Smagorinsky, 2008) while also being cognizant of and in part adapted from prior coding schemes from this line of inquiry. Not all of the 19 participants ended up taking teaching positions, and were difficult to locate at the conclusion of the data analysis. Thirteen were available for member checks and were given opportunities to respond to the analysis of their cases.

Each interview was analyzed in light of our research questions, themselves derived from Vygotsky's (1934/1987) emphasis on goal-directed, tool-mediated action in social, cultural, and historical contexts (Smagorinsky, 1995; Wertsch, 1985). Our research questions enabled us to look more specifically within the data for codes that detailed the following:

1. The *goals* toward which the TC anticipated using the tools (e.g., addressing issues in the educational landscape such as staffroom politics, helping students become better writers);
2. The *areas* of teaching, and thus the specific aspects of a teacher's responsibilities, in which the tools were used within these general levels of activity (e.g., planning, control, curricular strands such as reading and writing);
3. The particular sorts of *pedagogical tools* referenced by the TCs (e.g., use of manipulatives, group work) and the instructional traditions they represented (e.g., constructivist, formalist); and
4. The *source* to which the TC attributed her or his learning of how to use each tool and the context from which it was adapted (e.g., MT, teacher education faculty).

These codes helped us to recognize which areas of teaching were associated with which tools, where they came from, and which purposes they were used toward. Based on this knowledge, we were able to identify the different influences on these beginning teachers' conceptions of effective practice. These influences fell into five spheres. As might be

expected, teacher candidates in English Education and the Language Arts strand of the elementary curriculum emerged from coursework well-versed in *ELA teaching principles*, such as instructional planning, teaching writing, assessing student work, and other basic responsibilities of the job. They also, either through generalizations from these principles in courses or from mentorship elsewhere, learned what we considered to be *general teaching principles*, e.g., classroom management, appropriate instruction in light of human development and other factors, and a wide range of other principles shared by teachers across the curriculum. In addition to talking about what they did learn, the teacher candidates also noted holes in their preparation, which we classified as *information not learned in practicum* and *information not learned in coursework*, categories that included how to apply technology, how to move theory into practice, and other matters not covered extensively in coursework or fieldwork. Finally, the teacher candidates learned about what we classified as the *educational landscape of teaching*, a non-pedagogical category that included attention to the context of teaching, traits of communities, and other non-pedagogical aspects of the profession that influence instructional decisions.

Tables 2 to 7 detail the coding categories and frequencies of each code for each cohort. We see these frequencies and percentages as approximations of the attention that the TCs gave each factor when asked open-ended questions about how they taught and how they had learned to teach that way. We thus make the following arguments based on the presence of distinctively discrepant data that suggest particular effects of each program structure.

Findings

Prior work in this line of inquiry has found that beginning teachers, who are often expected to become highly proficient instructors through one to two semesters of coursework and practica and a semester of student teaching (see, for example, National Council for Accreditation of Teacher Education, 2008), are more likely to have fragmented understandings of how to teach due to their immersion in multiple conceptions of effective teaching that are often in conflict with one another (Bickmore, Smagorinsky, & O'Donnell-Allen, 2005; Johnson et al., 2003; Smagorinsky et al., 2003; Smagorinsky, Wright, Augustine, O'Donnell-Allen, & Konopak, 2007). These tensions were evident in TCs from all three programs, no matter how coherent or fragmented we found the program design.

A previous study in this research program further found that the apprenticeship of observation (Lortie, 1975) contributes to what TCs know about teaching, although in ways that require an update of Lortie's oft-cited findings from the 1960s and 1970s. Smagorinsky and Barnes (2014) found that TCs in more recent times have been exposed to a greater variety of pedagogies such that they state a preference for progressive teaching methods centered on students' interests, high levels of student participation, validation from teachers, choice in reading, and other methods that are more democratic than what Lortie identified in his Cold War-era sample. This study suggests that TCs in this century are more likely to gravitate to the values of Deweyan progressivism than were Lortie's experienced teachers, who felt comfortable within authoritarian structures. Smagorinsky and Barnes conclude that this exposure to a varied instructional tool kit over time produces less of a disjuncture between TCs' incoming values and those emphasized by progressive teacher educators in universities, even as those values might be practiced less often in schools than those driven by more conventionally teacher- and text-centered beliefs.

Regardless of program, TCs referred to a wide range of factors affecting their pedagogical thinking, rather than recognizing the campus-based teacher education program (e.g., the university-based faculty, fellow cohort members, or the methods courses) as being either singularly influential or even the most influential in teaching them what they needed to know to become a teacher. The data suggest that the factors that TCs named as having informed their developing conceptions of effective instruction (a) indicated that all three programs provided many aspects of preparation in virtually identical ways, (b) appeared to vary in ways consistent with the unique structure of their programs, and (c) included influences from outside the formal teacher education program (e.g., the practicum setting, the community, the policy context) and from life experiences preceding their teacher education program (e.g., their apprenticeship of observation, other university-based courses). Thus, even though the TCs in this study were explicitly asked what they learned during their teacher education programs, their responses extended far outside the formal learning from faculty to include a broad range of knowledge gained from a wide variety of sources, many of which were in contradiction to one another.

The TCs reported both similarities and variations on the knowledge sources they named for their understandings of effective teaching. We created Table 8's reduction of data from Tables 2 to 7 to present a general understanding of what the TCs learned and where they learned it from. We use relative frequencies to identify anomalies that suggested a strong area of emphasis in statements made in interviews. We assume to a degree that areas in which the three programs' TCs made roughly similar references indicate the presence of knowledge that most TCs learn by going through teacher education programs, no matter what type. These three programs themselves might be anomalous, yet may represent a sort of program found in universities carrying a Carnegie classification of *RU/VH: Research Universities (very high research activity)*, as both universities in this study were listed, and thus may include findings of interest for teacher educators working in such environments.

Table 2. Southwestern Elementary Education Program: Knowledge.

Category	No.
Educational landscape	
Community (Christian values are explicitly endorsed in some schools; Knowing when to act *in loco parentis*; Schools include diverse cultures, races, and learning styles; Some students' home lives are difficult; Parents can be violent/ threatening; domestic abuse; school struggles may follow from home life)	11
Policy (excessive standardized testing, policies require teaching against beliefs, standardized test scores can make teachers and schools look bad, test-driven priorities, teachers must accommodate to the school's expectations)	7
Curriculum (Some elementary classes focus on worksheets, Some teachers rely on showing movies, State curriculum's requirements, State curriculum may be pitched inappropriately for many kids' levels, Curriculum-literacy skills are integrated, but separated for assessment)	6
Professionalism (Teacher conflict undermines student learning, teachers interfere and meddle with each other's business)	5
Resources (Many schools are resource poor, Availability of speech pathologist)	5
School operation (Chain of command for dealing with problems, Counselors can provide perspective on kids, Open classroom environment, Politics of, Principles and teachers may have different philosophies, Procedures for legal matters, School functions disrupt teaching and learning, Urban schools are rule oriented, Each school operates differently)	10
Teacher education (Different programs have different philosophies, Professors do not always practice what they preach, Teacher education program limited opportunities to learn from students because of emphasis on learning from mentor teachers)	6
Two-worlds pitfall (Highly structured environments do not accommodate constructivist practices, Schools and university occasionally aligned, University expectations inappropriate for kids in school, University expectations inappropriate for school resources, University theory must be negotiated to fit school classrooms)	9
English Language Arts (ELA) teaching principles	
Constructivist methods (Student interests guide learning inquiries, Active learning, Authentic books, Multiple text modes, Student choice in reading, Use everyday texts, Bridging prior knowledge to current knowledge)	10
Language pedagogy (Teach grammar skills)	2
Planning (Integration of curriculum, Skills can be taught out of context of usage, Teacher guides learning rather than directing it)	3
Reading/literature pedagogy (Basals and workbooks go together, How to choose good books, How to use a basal reader, Real books interest kids more than basals, Use of multicultural literature)	6
General teaching principles	
Constructivist (Reading conferences, Student choice, Teacher learns from student, Learning centers, Student ownership of classroom, Reading and writing workshops, Authentic writing promotes kids' engagement, Constructivist methods need to be instituted at the beginning of the year, Personal writing can promote thinking, Classroom arrangement should not be centered on the teacher, Kids can learn from mistakes, Student groupings should change, Students want to learn, Teachers should not always know or provide the answers, Authentic learning experience, Avoid worksheets, Cooperative learning, Creativity, Discovery/exploratory learning, Eschew memorization, Experiential learning, Focus on each student so they feel valued, Hands-on learning, manipulatives, implementing group work, incorporating song, Learning can be more engaging without textbooks, Making learning fun, Promote active learning, Promote freedom of expression, Self-guided exploratory learning, Student-led class segments, Students' self-assessment on learning, Constructivism [with traditional as foil], Cooperative learning, Discovery/exploratory learning)	53
Control (Behavior can be managed gently, Classroom management, Reward and punishment, Contracts with students)	4
Differentiation (Individual pacing, Individual pathways, Provide for special needs, Variation in kids calls for variation in teaching, Knowing individual kids, Individual rather than standardized assessment, Immigrant students require greater attention, Accounting for diverse learners)	11
Disposition (Be assertive, Be open, Being nonjudgmental allows teachers to become kids' confidants, Caring attitude, Cultivate kids' self-esteem, Flexibility, support for kids, Question own assumptions about exceptional learners, Support students' success, Teacher enthusiasm is contagious, Teacher's self-assessment on teaching, Set boundaries with students, Developing self-esteem to cultivate experimentation, How to find things on your own, Opportunities limited by convergent-question assessments, High expectations for kids)	20
Human Development (Delight in kids' light-bulb moments, Piagetian and Vygotskian theories, Stages of development allow for new types of instruction, Developmentally appropriate instruction, Piagetian stage theory, Piagetian theory in practice [practicum])	8
Planning (Aligning instruction with objectives, be creative, Designing cross-curricular unit, Diverse ways of teaching, Employ variety of strategies, Flexible pacing of lessons, Good plans do not always work in practice, Including real world examples and connections, Integrating arts and literacy instruction, Knowing disciplinary content, Learning is social, Preparation can make classrooms productive learning sites, Providing print-rich environment and opportunities to read/write,	40

(continued)

Table 2. (continued)

Category	No.
Teaching skills in context of usage, Team teaching can produce disarray, Thematic units, Using mnemonics, Using music to aid memory, Variety of text types, Writing lesson plans, Centers can help integrate curriculum, Teaching from workbooks does not guarantee learning, Integrate and diversify curriculum, Designing fair tests, Not all students' work needs to be graded, Seating arrangement must be aligned with pedagogy, Adapt methods to needs of the setting, Theory sometimes works in practice)	
Technology (Educational software, How to use classroom tech)	2
Not learned in practicum	
Planning instruction (Constructivist teaching, Scaffolding student learning, Authentic engagement with texts, Learning from materials requires follow-up discussion)	4
Not learned in coursework	
Classroom processes (How to deal with local tragedy, working with emotionally disturbed children, Specific strategies for teaching how to discuss race and religion in class)	4
Parents' perspectives (Exceptional children)	1
Planning (A range of theories, Extreme constructivist teaching can leave kids floundering, Kids' scientific background knowledge, Questioning strategies, Methods [not enough])	7
Technology (Using new technologies)	2

Note. Each category is subdivided into the specific codes used to analyze the interview transcripts. The number column refers to the frequencies with which each code was identified within this particular batch of interviews.

Table 3. Southwestern Elementary Education Program Knowledge Source.

Code	No.
Field experience—School setting	28
Field experience—Students	4
Field experience—Teacher	22
Field experience—The act of teaching	1
University courses—Methods: Mathematics	3
University courses—Methods: Reading	5
University courses—Methods: Science	2
University courses—Methods: Social studies	1
University courses—(General)	4
University courses—Child development	3
University courses—Exceptional learner	3
University courses—Learning and cognition	4
University courses—Media and technology	3
University courses—Methods block	19
University courses—Methods: Language arts	14
University courses—School and American culture	3
University courses—Teacher education (general)	1

Note. The code indicates the knowledge sources participants attributed their knowledge to. The number column refers to the frequencies with which each code was identified within this particular batch of interviews.

We begin by reviewing the three programs and their conceptions of how they were preparing TCs, and then report on the effects of the programs as revealed through the interviews. TCs, regardless of program, were situated quite similarly amid competing notions of effective teaching, and thus were subject to a common set of tensions that mitigated against the possibility of arriving at a unified understanding of how to teach English in secondary schools or the Language Arts strand of the elementary school curriculum.

Southwestern Elementary Education Program

Design and intentions. The elementary education program was mostly taught by tenure-track faculty, with some courses taught by adjunct professors. After taking courses that were required of TCs in all of this university's certification programs—human development, special education, foundations, and so on—the TCs took a block of five methods courses (language arts, mathematics, science, social studies, reading) in their senior year in a cohort group. Each of the five methods courses was accompanied by a minimum of 30 hr of field experiences distributed across urban, rural, and suburban school settings, all within easy driving distance of the university campus.

The elementary education faculty embraced Piagetian (1954) constructivism as the umbrella concept to guide their students' thinking about teaching, explicitly streaming these principles throughout all elementary education courses. Students in the program learned to contrast this version of constructivism with what their faculty termed *traditional teaching*, that is, instruction oriented to teacher authority, fixed knowledge, linguistic form, and other aspects of the formalist tradition. The faculty's adherence to Piagetian constructivism was evident in both the interviews we conducted with TCs and in professors' course syllabi and assessments, faculty web pages where it was listed as a theoretical orientation, and search committee deliberations where it was axiomatic as a factor in hiring new faculty. We considered this program to be conceptually unified given this explicit agreement on the theoretical orientation of its faculty and

Table 4. Southwestern Secondary English Program: Knowledge.

Category	No.
Educational landscape	
Community (Parental communication, parents oppose diversity education, schools include diverse cultures, races, and learning styles)	5
Context (Critical stance on educational issues, Social and political issues surrounding schools)	2
Curriculum (Curriculum and assessment are aligned, each school develops its curriculum uniquely, English teachers at grade level did same work at same pace, some schools emphasize lessons more than whole curriculum, teachers have leeway in interpreting the curriculum)	6
Resources (Many schools are resource poor)	2
School operation (How whole schools work, Middle school team approach, old, limited technology limits teaching, Open-classroom environments are distracting, Politics of, Schools operate by administrative routines, Secondary school and primary school differ in structure, Some teachers just punching in)	10
Student pathways (Mainstreaming challenges teachers)	6
Teacher education (English profs look down on education profs and students, Disciplinary culture—Education/Arts and Sciences have different values, Program Integration—Courses lack articulation)	3
Two-worlds pitfall (progressive theory does not always work in practice, Sometimes schools do not follow research-based practices)	2
ELA teaching principles	
Assessment (How to write a test, How to grade papers, Students need papers returned promptly, Teaching toward outcomes)	4
Constructivist methods (Involving students, Learning by doing, not by instruction, Student-centered teaching, Teachers facilitate learning, Connecting reading to real world)	9
Curriculum (Advanced Placement [AP] curriculum content, Historical foundation, Nontraditional writers, Historical perspective on English curriculum)	4
Language pedagogy (Perfect grammar is an illusion, Teach grammar in conjunction with reading and writing)	3
Planning (Addressing culturally diverse learning styles, Designing thematic units, Engage students with creative thinking, Planning for block schedule, Rationale for instruction, Relate literature to students' experiences, Sequencing, Theoretical grounding for planning, Writing educational objectives, Writing lesson plans, Most teachers use textbooks cover to cover, Pre and post instruction assessments, Scaffolding)	17
Reading/literature pedagogy (Provide practice time, Attend to multiple student interpretive perspectives, Reading broadly, Reading from author's perspective, Reader response pedagogy)	5
Writing Pedagogy (Allow writing in many textual genres, Provide practice time, High yet realistic expectations)	3
General teaching principles	
Appropriate instruction (Meeting needs of minority students, Teaching mainstreamed classrooms)	3
Constructivist methods (Using technology, Learning through play, Projects, Recapturing fun of elementary school in high school English, Struggling students can have fun learning, Summoning childhood memory as basis for writing, Teachers can make learning interesting by moving beyond rote, Teachers need to hook kids on instruction, Enjoying learning, Student choice, Students take ownership of learning, Motivational techniques, Role of prior knowledge)	16
Control (Classroom management, Students take advantage of soft-spoken teachers)	6
Culture and diversity (Navigating multicultural classrooms, Race relations should be discussed in class, Teachers should know and respond to their students' racial cultures)	3
Differentiation (Many students are less accomplished than novice teachers anticipate, Recognize special needs, Variation in kids calls for variation in materials)	4
Disposition (Uncomfortable with sexual topics, Young teachers must differentiate selves from kids, Overcoming performance anxiety, Initial nervousness of getting up in front of people, Flexibility, Mutual respect for students, Consistently firm, Equitable treatment of diverse students, Good grades can indicate good teaching, Teachers want students to succeed)	11
Human Development (Exploring values, How children develop identities that shape adolescence, Imaginatively project social futures, People are continual learners, Phases of adolescence, Piagetian developmental stages)	7
Knowledge of students (Cultures, Home lives, Diversity, Readiness for learning, Ability to "do school," Dislike of rote teaching)	6
Planning (Aligning instruction and assessment, Making theory practical, Making transparency/slide presentation, Scaffolding, Synthesizing knowledge from different courses into unit plans, Teaching toward objectives, There are creative ways to teach, Writing Lesson plans, Writing Educational Objectives)	13
Technology (How to use spreadsheet, Making laminations)	3

(continued)

Table 4. (continued)

Category	No.
Not learned in practicum	
Curriculum (Knowing what to teach and leeway within guidelines)	1
Not learned in coursework	
Classroom processes (How to work with kids, Classroom management, What classrooms are like)	4
Planning (How to write a lesson plan, How to teach, Moving theory into practice, Integrating mainstreamed Special Education students into regular instruction, Preparation to teach)	5
Technology (How to use sophisticated tech, Secondary school applications, Using new technologies)	5
What not to do with kids	
Stick to plan even if students are bored; Be mean, sarcastic, and racist; Disregard offensive comments; Favor the boys; Let kids be mean, sarcastic, and racist	6

Note. Each category is subdivided into the specific codes used to analyze the interview transcripts. The number column refers to the frequencies with which each code was identified within this particular batch of interviews.

Table 5. Southwestern Secondary English Program: Knowledge Source.

Code	No.
Education courses—Generally speaking	8
English education faculty	23
Fellow teacher education students	1
Field experience—School setting	7
Field experience—Students	6
Field experience—Teacher	25
University course—History class	1
University courses—Developmental psychology	5
University courses—Drama	1

Note. The code indicates the knowledge sources participants attributed their knowledge to. The number column refers to the frequencies with which each code was identified within this particular batch of interviews.

deliberate means of reinforcing it across courses, particularly in light of the cohort approach that helped to insulate the TCs from other perspectives.

The faculty appeared to assume that this heavy, recursive concentration on a single theoretical perspective and its accompanying tools would have a durable effect on TCs' conceptions of teaching, regardless of school organizations, community demographics, or other factors. This context-independent understanding of child development was based on age-based maturation and readiness, a hallmark of Piagetian stage theory, rather than an understanding of exogenous factors such as poverty (Berliner, 2014) or cultural variation among community members (Lee, 2008) that might shape developmental patterns and trajectories, as would be available through a perspective grounded in social and cultural mediation (Vygotsky, 1934/1987; Wertsch, 1985). Piagetian constructivism served as their sole theoretical orientation to teaching across the curriculum, suggesting that biological, age-based stages provide the knowledge required to teach appropriately at the various grade levels. For example, according to Inhelder and Piaget (1958), the formal operational stage begins at about age 11, a point at which adolescents gain the abilities to think abstractly, to combine and classify items in a more sophisticated way, and to think with higher order reasoning; and this stage kicks in regardless of cultural factors shaping development.

The Piagetian constructivist perspective (e.g., Piaget, 1954) was central to coursework and referenced by all TCs in their accounts of how to teach Language Arts effectively. In this conception, people construct knowledge and attribute meaning to its artifacts through their experiences in the world, processing them through the stage of cognitive development available at particular ages. The process of constructing knowledge involves, independent of acculturation, *assimilation*, the incorporation of new experiences into old such that one may develop new perspectives, resolve discrepant knowledge, and learn to evaluate this knowledge and produce new perceptions. The second critical component, *accommodation*, involves the resolution of existing schematic knowledge with discrepant information from worldly experience such that schema are adjusted to account for expanded understandings.

The teachers graduating from this program ideally developed a singular view of teaching, one that they shared with all other members of their cohort. Each graduate should be easily recognizable in schools as a graduate from this program. According to the vision of this program, their graduates left their teacher education program prepared to make a smooth transition into their first classroom as novice teachers, ready to apply constructivist teaching principles to any school context in which they might find employment.

Knowledge and its sources. Compared with the other two programs, TCs in the SW Elementary program reported learning about constructivist and general (i.e., not discipline-specific) planning with the greatest frequency. Because this program was organized into five discipline-specific methods courses (math, social studies, science, reading, and language arts), it is not surprising that TCs would report learning about

Table 6. Southeastern Secondary English Program Knowledge.

Category	No.
Educational landscape	
Community (diversity, parental intervention, White flight)	3
Curriculum (accommodates styles and ability ranges [includes "disability"]	2
Long-term issues (educational history, cyclical nature of teaching styles)	2
Policy (work with school board, work on standards projects, write research proposal)	3
School operation (politics of, hidden agendas, communication lines, administrative roles, teacher culture, types of schools, procedures for getting assistance, bureaucratic routines, teachers help one another, teachers share frustrations)	15
Student pathways (tracking and racial composition, social promotion, tracking is about socialization)	6
Two-worlds pitfall (classrooms are not ideal, schools and universities have different values, progressive theory does not always work in practice, synthesize school and university knowledge)	13
English/Language Arts teaching principles	
Assessment (organization, alignment with instruction, portfolios, not necessary to grade everything, attention to state assessment, reasonable and appropriate goals)	7
Classroom logistics	2
Constructivist methods (journals, writing and reading workshops, portfolios, open-ended inquiry, student-centered teaching, peer editing, discussion, understanding is better than memorization, metacognition, teachers facilitate learning, attention to learning processes, exploratory learning)	17
Language pedagogy (theory of grammar instruction, formalism can be appropriate)	2
Reading/literature pedagogy (cultivate love and need for reading, choice in reading, Shakespeare, anthologies are limiting)	5
Sequencing (begin with accessible instruction, chunking longer readings, sequencing can be flexible)	4
Writing pedagogy (how to research a topic, give students practice)	2
General teaching principles	
Community (rapport with students, knowing and caring for students builds community, interpersonal relationships matter, kids' home lives present challenges to teachers)	9
Constructivist methods (ground abstract in concrete, relate new learning to prior knowledge, real world utility for school learning, publish student work, school can have a vocational purpose, kids often do not like subject matter, peer editing, collaborative learning, peer assessment, lesson planning, connections between students and curriculum, dialogic classroom, learning by doing, engaging kids is challenging, using technology, kids dislike academic reading)	24
Control (kids can be manipulative, kids can be resistant, some kids like in-school suspension; Classroom management, speaking with authority without condescension)	6
Culture and diversity (inclusive approach to diversity; Delpit's views on explicit teaching of codes of power, culture should be discussed in class, theories of race and education, students' cultures frame educational practices, race-based traits, racial performance disparities)	8
Differentiation (multiple intelligences, kids have different learning styles, kids have different talents, groups respond differently to same instruction, variation in kids calls for variation in materials, not all kids like the same teaching, learning disabilities, low literacy levels)	16
Dispositions (each style unique, personal life and experience affect teaching, teaching is a performance, there is always more to learn about teaching, teachers are learners/works in progress, teachers change over time, reflection promotes growth, manage much at once, tough job, it's OK to feel out of control, teachers are observers, teachers get ideas from multiple sources, teachers are resilient, teachers should risk failure with new ideas, teachers learn from failure, patience, resourcefulness, sense of humor, fairness, positive attitude, respect for kids, do not take things personally, exhibit professionalism, flexibility, teachers should keep relationships with students bounded)	46
Human developmental ("natural" development, teachers can change kids' lives, moral development)	6
Knowledge of Students (teaching is responsive to students, incorporate student choice, kids different from teachers, kids today different from my generation, students don't see teachers as whole people, youth culture, adjusted to kids' levels, based on students' cultures and experiences)	16
Planning (organization, preparation, adjust lessons in situ, have a backup plan, interdisciplinary teaching, scaffolding, teaching within time constraints, kids expect to be told what to do)	12
Theory (theory changes in relation to new experiences, connecting personal and academic knowledge, education classes are too theoretical, theory does not always work in practice)	9
What not To do	
Curriculum and instruction (teach grammar, use process approach with kids who need direct instruction, emphasize quantity over quality, be disorganized)	7

(continued)

Table 6. (continued)

Category	No.
With assessment (overmark with red ink, multiple choice tests)	3
With kids (bore, alienate, be mean and sarcastic, disregard disengagement)	2
Not learned in coursework	
Classroom processes (classroom management, how to lead discussion, how to lecture)	5
Planning (units, lessons, grammar instruction, alternatives to process method, integrating media and technology, moving theory into practice)	7
Not learned in practicum	
Assessment	1
Classroom management	1
Integrate media and technology	1

Note. Each category is subdivided into the specific codes used to analyze the interview transcripts. The number column refers to the frequencies with which each code was identified within this particular batch of interviews.

Table 7. Southeastern Secondary English Program: Knowledge Source.

Code	No.
Assigned readings	9
English education cohort (fellow students)	10
English education faculty	31
Mentor teacher—Assigned	18
Mentor teacher—Informal (school colleagues, family members)	2
Negative—Mentor teacher/practicum	7
Negative—Teacher education program	6
Self (girl scout leader, parent, personal reflection, prior teaching)	6
Students in practicum	26
University courses (educational psychology, foundations, special education, English department course in teaching Shakespeare)	9

Note. The code indicates the knowledge sources participants attributed their knowledge to. The number column refers to the frequencies with which each code was identified within this particular batch of interviews.

general planning more often than the other two programs, which were specifically dedicated to secondary English education. Furthermore, the cohesive vision and organization of the program around constructivist teaching methods likely explains why TCs reported learning constructivist teaching methods with greater frequency than the TCs in the other programs.

Table 9 summarizes the knowledge sources named by the TCs. Across programs, the TCs interviewed for this study referred about equally to their university methods professors. This program's slightly higher percentage of references might easily be due to the fact that they took courses from five methods professors rather than one in the SW English Education program and two team-teachers in the SE English Education program.

The SW Elementary Education program was anomalous in one area, that being the relatively high frequency of references to the setting of school as a source of knowledge. With at least 150 hr of field experiences required across the block of methods courses, this immersion in schools likely contributed to the TCs' reliance on field sites for knowledge about teaching.

Southwestern Secondary English/Language Arts Program

Design and intentions. We characterize the Southwestern secondary English/Language Arts program as being *structurally fragmented* (Zeichner & Gore, 1990). (This article's second author was a faculty member in this program at the time of the data collection, although was not the architect of the program's design. As Table 1 indicates, he taught each research participant in at least one class.) The TCs did not go through the program as a cohort, instead taking courses in any order of personal convenience. The same required course might be taught by different faculty, adjuncts, or teaching assistants, each with a focus and process different from and at times contradictory to the others. Without a cohort approach, two students could start and end their programs of study on the same dates without ever crossing paths or taking courses from the same instructors. Students' coursework outside education was concentrated on 8 to 15 courses taken in the Department of English.

Prior to student teaching, the TCs took one methods class accompanied by roughly 40 hr of field experiences. Aside

Table 8. Cross-Program Comparison: Areas Learned About.

	SW elementary		SW secondary		SE secondary	
Area learned about	No.	%	No.	%	No.	%
Landscape						
Community	11	5	5	3	3	2
Context	0	0	2	1	0	0
Curriculum	6	3	6	4	2	1
Long-term issues	0	0	0	0	2	1
Policy	7	3	0	0	3	2
Professionalism	5	2	0	0	0	0
Resources	5	2	2	1	0	0
School operation	10	5	10	6	1	1
Student pathways	0	0	6	4	6	3
Teacher Ed Program	6	3	3	2	0	0
Two-Worlds	9	4	2	1	13	8
English/language arts teaching principles						
Assessment	0	0	4	3	7	4
Classroom logistics	0	0	0	0	2	1
Constructivist methods	10	5	9	6	17	10
Curriculum	0	0	4	3	0	0
Language pedagogy	2	1	3	2	2	1
Planning	3	1	17	11	0	0
Reading/literature pedagogy	6	3	5	3	5	3
Sequencing	0	0	0	0	4	2
Writing pedagogy	0	0	3	2	2	1
General teaching principles						
Appropriate instruction	0	0	3	2	0	0
Classroom community	0	0	0	0	9	5
Constructivist methods	53	24	16	10	24	14
Control	4	2	6	4	6	3
Culture/diversity	0	0	3	2	8	5
Differentiation	11	5	4	3	16	9
Disposition	20	9	11	7	46	27
Human development	8	4	7	4	6	3
Knowledge of students	0	0	6	4	16	9
Planning	40	18	13	8	12	7
Real-world relevance	0	0	0	0	0	0
Technology	2	1	6	4	0	0
Theory	0	0	0	0	9	5

Note. All percentages were rounded using the convention of rounding up for .5 and greater, and rounding down for percentages lower than .5. As a result, proximate numbers at times were listed as having the same percentage of the whole. The # columns refer to the approximate frequencies with which participants indicated learning about particular areas in the data. The % columns refer to the approximate percentage of the total codes for that category. Percentages were calculated for each individual cohort.

from the English/Language Arts methods class and a Theory of English Grammar course (courses taught by the second author, although he did not teach both courses to all research participants), secondary English/Language Arts education students took no courses from faculty in the curriculum and instruction department, leaving TCs without a sustained focus on a unified conception of teaching. TCs could go through the program taking courses that were not in formal dialogue with one another about pedagogy. In contrast to TCs enrolled in the same university's elementary education program reviewed in the previous section, this program's students were not immersed in the kind of goal-directed, conceptually unified, tool-mediated communal activity that gives an education program a particular culture and focus and enables its TCs to develop a consistent approach to teaching that is widely shared among its graduates and is central to the program's reputation (Smagorinsky et al., 2003).

Program TCs were required to take far more courses (8-15) from the Department of English—housed in the College of Arts and Sciences—than in English/Language Arts Education,

Table 9. Cross-Program Comparison: Sources of Knowledge.

	SW elementary		SW secondary		SE secondary	
Sources	No.	%	No.	%	No.	%
English education/methods professors	44	37	23	30	40	33
Fellow TCs	0	0	1	1	10	8
Other education courses	21	18	13	17	9	8
Other university courses	0	0	2	2	9	8
Field experience: MT	22	18	25	32	20	17
Field experience: Students	4	3	6	8	26	22
Field experience: Setting	29	24	7	9	0	0
Self	0	0	0	0	6	5

Note. All percentages were rounded using the convention of rounding up for .5 and greater, and rounding down for percentages lower than .5. As a result, proximate numbers at times were listed as having the same percentage of the whole. The # columns refer to the approximate frequencies with which participants attributed their learning to particular sources. The % columns refer to the approximate percentage of the total codes for that category. Percentages were calculated for each individual cohort. TC = teacher candidate; MT = mentor teacher.

a College of Education program. As Addington (2001) has documented, these two distinct disciplines are based on different epistemologies (humanities for English, social sciences for English/Language Arts Education), with the consequence that the values of English/Language Arts Education were prone to being subsumed by those of English (primarily English literature) in TCs' conceptions of appropriate pedagogy through sheer comparative exposure.

Each TC's experience in the teacher education program was unique. It is unclear what vision the Southwestern secondary English/Language Arts program had of its graduates, based on our interviews in this study. It can best be assumed that the program deemed their graduates appropriately prepared for teaching because they had the same composite of experiences: English content courses, English/Language Arts pedagogical courses, additional education courses (media, adolescent development, foundations, special education), and practicum work. Together, these experiences should result in people who can teach English/Language Arts, with any combination of required courses in any order producing a competent teacher.

However, different TCs might have very different conceptions of teaching depending on the specific faculty who taught their courses. In the English/Language Arts program, for instance, two professors taught the teaching methods course in alternating semesters, one of whom taught it as a poetry writing workshop and the other of whom taught it as a course in how to design instructional units. Learning might also vary in relation to the beliefs of the other students enrolled in courses when taken and how they affected class discussions, the orientation of MTs in practica and student teaching, the number and quality of English department courses taken and their weight relative to the influence of their sole English/Language Arts Education course, their enrollment in the Theory of Grammar course and whether it was taught by a linguistics professor in English or an English/Language Arts Education faculty member, and other factors.

Knowledge and its sources. TCs from this structurally fragmented program had several anomalous frequencies in the data. They referred to learning about teaching from their practicum MTs for nearly a third of their attributions of teaching tools to a source. These references came in spite of a crisis in the field placement office that delayed practicum placements to the very end of the semester, often requiring field observations in classes other than English. One possible explanation is that with only one methods course and possibly one Theory of English Grammar course taught by English/Language Arts Education faculty—in contrast to five methods courses in the SW Elementary Education program and four in the team-taught SE English/Language Arts Education program—TCs simply had less engagement with the English Education professors. With relatively little to draw on from campus, TCs possibly got more of their ideas from their MTs during practica, even with highly compacted placements late in the semester.

Southeastern Secondary English Education Program

Design and intentions. The Southeastern English Education program used a cohort approach that enrolled 20 students during the year of data collection. In the fall semester of their final year of study, the TCs took three courses—instructional planning, adolescent literature, and teacher inquiry—that were team-taught by two English/Language Arts Education professors in consecutive time blocks, allowing the three courses to operate as a single integrated course that provided the likelihood of conceptual unity. The TCs spent 12 hr a week in the high school English/Language Arts classes of their MT throughout the fall semester and did their student teaching during the spring semester under the supervision of the same MT, with the intention of providing a long-term experience in a single classroom. The program was heavily field based, with an explicit reliance on MTs for TCs'

apprenticeship into the profession.

The professors stated an emphasis on *making connections* between teachers and students, schools and universities, and schools and communities. Course readings, activities, and projects emphasized a student-centered, process-oriented approach that stressed the importance of reflective practice. This approach fell within the progressive tradition of collaborative, activity-based teaching and learning based on inquiry into complex questions, with the social environment committed to respecting democratic processes.

This program used a cohort model in conjunction with a year-long field placement under one MT (occasionally two) who had been hand-picked for alignment with the program faculty's values. It assumed a certain insulation from outside factors that could contribute to alternative understandings of teaching. Indeed, Reggie, an African American male who contested the program's progressive emphasis as insufficiently attentive to matters of cultural coding of language in the fashion of Delpit (1995) was regarded by the faculty as rebellious and uncooperative.

To help TCs consider life from the perspective of youth and thus make strong connections with them, the faculty assigned such work as literacy autobiographies in which TCs reflected on their own experiences in learning to read and write. TCs were encouraged to use these reflections to both think about their own schooling experiences and further consider how to make connections with students in their MTs' classrooms. The program was designed to be fairly insular, with the two professors team teaching all classes, and the MT group limited to those who had, for the most part, gotten credentialed through the same program under the same faculty. Indeed, the faculty used the metaphor of a "seamless" integration with schools based on this close and careful alignment between university and school, although the TC interviews suggest that doing so elided the presence of discontinuities. Nonetheless, the program was designed so that their graduates bore a distinctive imprimatur, one that identified the beginning teacher as one who understands and can fit in with schools and use students' interests and needs as the basis for instruction.

Knowledge and its sources. Disposition and Knowledge of Students codes were applied with the greatest frequency to the interviews of TCs in this program. The faculty in this program intentionally designed coursework to encourage TCs to draw connections between their university-based courses and their practicum experiences. Furthermore, great emphasis was placed on the importance of the practicum setting (including the MT, students, and school environment) in the preparation of TCs. The program's reliance on MTs for ground-level pedagogical ideas situated within particular school contexts might account for the relatively high frequency of codes in this area.

One anomaly in the data is the relatively great frequency with which this program's TCs referred to students in their field placement as an influence on their teaching decisions: 22% of all references. One possible explanation is that sustained presence in a single classroom over a semester might bring familiarity such that students' needs become increasingly evident, something not available in the more distributed nature of the practicum-heavy elementary program in this study. We infer that the program's emphasis on making connections with students contributed to the effect we see in these figures.

A second frequency that stands out is the extent to which this program's TCs referred to members of their cohort relative to the other programs. The SW English/Language Arts Education program's lack of a cohort approach is a strong candidate to account for the single occasion on which it was mentioned; yet the SW Elementary Education program's TCs did not refer to one another at all as a source of learning, even with a cohort approach. One explanation could be that this program's TCs were often placed in clusters at hand-picked schools, and carpooled to the site and back. For instance, in subsequent stages of the data collection, we found that one group of women TCs, all planning their summer weddings, regularly carpooled to their placement school. Such camaraderie would likely improve the chances that TCs from this cohort would talk shop along with weddings during the rides and report one another as the source of ideas about effective teaching.

Finally, the TCs from this program were the one group who referred to themselves as the source of their teaching ideas. It is difficult to argue conclusively about this anomaly. One possible explanation could be the program's emphasis on reflective practice. Throughout both the fall and spring semesters, TCs were encouraged to consider their university-based coursework in light of their practicum experiences. Such reflection on personal experience could have encouraged TCs to engage in their own sensemaking, contributing to a vision of themselves as knowledgeable about various teaching principles. Furthermore, by reflecting back on their own PreK-12 school experiences in literacy autobiographies, TCs could have drawn from their own apprenticeship of observation and subconsciously attributed the pedagogy to themselves as they articulated what they knew about teaching and schools.

Knowledge of the Educational Landscape

Our study identified an area of learning typically not considered when teacher educators design and assess their programs, what we classified as the *educational landscape* that provides the setting for TCs' learning about how to teach. The critical relationship typically accounted for by teacher educators is the TC/MT relationship and how it brokers TCs' navigation of what Feiman-Nemser and Buchmann (1985) termed the *two-worlds pitfall* between schools and universities, and the *multiple-worlds pitfall* that Smagorinsky et al. (2013) found in which both schools and universities offer competing notions of effective teaching within them. Indeed, learning that such a set of pitfalls exists is among the lessons

that TCs learn in going back and forth between the two environments, with schools typically more restrictive than university progressive pedagogies allow for.

The educational landscape includes a variety of factors that were present to different degrees in the interviews of the TCs from the three programs we studied. Each found, for instance, that the constitution of the communities in which they taught was a factor in how to teach effectively. Community demographics, for instance, affect instructional processes and products, along with the fact of challenging home lives that make school success difficult for many students. One SW Elementary Education participant, for instance, adapted her teaching to the low literacy rates of the impoverished rural community in which she did her student teaching, emphasizing "functional literacy" as a means of providing tools that she hoped would help prevent her students' incarceration later in life (Smagorinsky, Sanford, & Konopak, 2006).

Although university courses might alert TCs to population variables that may affect certain students' chances for school success, only when out in schools can they learn firsthand how to deal with angry parents, abused children, and opposition from religious households, and have other experiences that complicate their understanding of how teaching methods work in schools. In general, TCs also learn about the politics of schooling. These dynamics might be writ large, as in how policy shapes curriculum and assessment, and writ small, as when faculty interfere in one another's business in the school. Related to political battles is the problem of understanding how school operations affect teaching, such as how to deal with oppositional students, where to find resources, how testing shapes teaching, how one school's culture may be different from another's, and so on.

Not all learning outside the official teacher education curriculum comes in schools. TCs also learn about teacher education itself by going through its programs, not in the manner of the apprenticeship of observation, but in terms of what they both hear and what they observe. Professors, for instance, may preach democracy while teaching autocratically. They may find that when teacher education takes place in a College of Education, faculty in Arts and Sciences are uninhibited in telling students that it is a lightweight discipline. They may learn that, depending on what teacher is teaching a course, the knowledge and expectations might be quite different from one another.

In other words, while in teacher education programs that include school placements, TCs learn a lot more about teaching than curriculum alone can provide. Rather, they gain exposure to much that helps to situate their learning in the relatively bound areas of university classrooms and MT relationships, and thus to enhance learning and at times even contradict it. The educational landscape that we found described in these interviews thus indicates a key area of incidental learning that appears to accompany whatever is offered formally through teacher education programs, regardless of design.

Discussion

Current rhetoric surrounding teacher education programs suggests that teacher preparation is a flawed, but easily remedied, process. To improve teacher preparation and the quality of teachers entering U.S. schools, programs should recruit stronger students, teacher educators should provide preservice teachers with more foundational knowledge of the specific content they will teach, and university faculty should foreground the practical skills teachers will need to plan for and lead instruction, thus devaluing the role of theory (Willingham, 2015). Rather than letting TCs idle their time away in university classes, university teacher educators should make PreK-12 school classrooms the principal site of learning about how to teach (Cibulka, 2009), observing the very sort of classes that many critics of schools assert are not sufficiently student oriented for beginners steeped in progressive principles to emulate (Smagorinsky, 2013). Such prescriptive recommendations assume a singular vision of preservice teachers and also give primacy to teacher education programs as the single most important aspect of teacher preparation.

Our analysis of what TCs in three different education programs purported to learn in teacher education challenges both assumptions. As our findings demonstrate, TCs' developing conception of teaching is influenced by a number of factors—*one* of which is the teacher education program. Although the structure of the teacher education program does influence what TCs learn about teaching and where they learn it from, it is by no means solely responsible.

To illustrate the complex nature of TCs as they enter and experience their teacher education program, and to further challenge monolithic portrayals of TCs and teacher education, we depicted the composite TC from the three programs (see Figure 1). This character is surrounded by a number of influential factors, organized into categories: the apprenticeship of observation, the university-based aspects of the teacher education program, the university-based liberal arts courses, the bureaucratic and policy-related aspects of education, the practicum and student teaching experiences, the community, and the participant's personal life. As the figure illustrates, each of these factors influences and is influenced by the TC. Furthermore, the various factors surrounding the TC also are influenced by and influence one another.

This image does not (and cannot) fully capture the dynamic nature of the myriad factors influencing each individual TC's conception of teaching. As our findings suggest, TCs make sense of the various influential factors in different ways. Furthermore, the impact of each factor surrounding the TC varies over time—with some factors being more or less salient at different points, and with images shifting in relation to one another as some get foregrounded in TCs' attention and others recede. For instance, one secondary English/Language Arts TC reported that her conception of teaching English grammar prior to teacher education courses followed from her own personal success at diagramming sentences

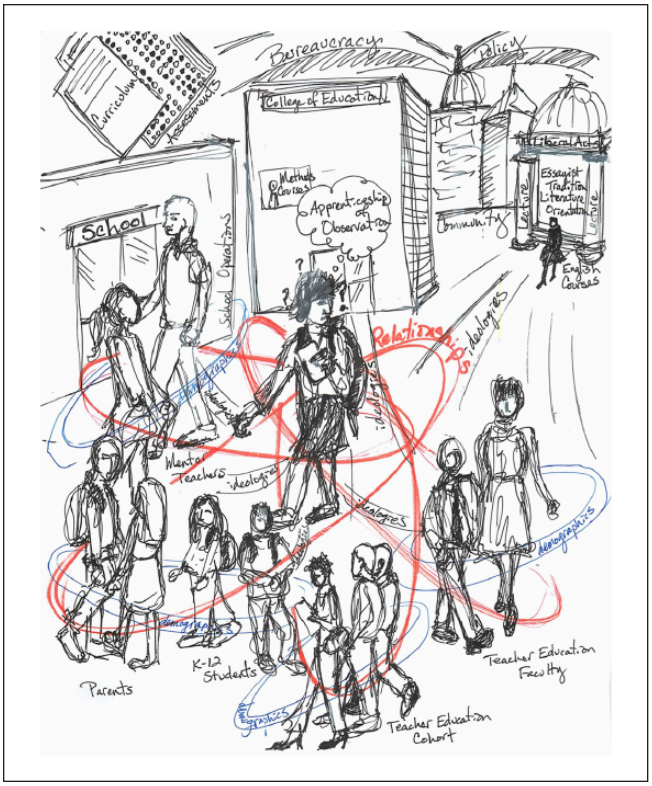

Figure 1. Composite Teacher Candidate. Source: Michelle Zoss, Georgia State University.

and undertaking the formal study of grammar, relying initially on her apprenticeship of observation and personal preference for language study to frame her approach to the language strand of the English curriculum. This conception changed during her coursework, however, in which she was exposed to research demonstrating the limits of teaching grammar as an isolated skill and the need to address language usage in the context of writing.

Because of the number and even conflicting nature of factors influencing TCs' developing conceptions of teaching, there are some aspects of the TCs' preparation that will develop regardless of (or even in opposition to) the teacher education program's structure, aims, and/or overarching conceptual framework. This finding further contributes to the knotty nature of teacher preparation. The experiences shared by TCs in this study problematize earlier conceptions of teacher education as beholden to the apprenticeship of observation, complicate the "twisting path" metaphor, and challenge attempts to standardize the ways that education students are recruited, prepared, and even evaluated.

To better recognize and build on the various knowledge sources informing TCs' conceptions of teaching, teacher education programs would benefit from incorporating multiple opportunities for TCs to reflect on their previous school experiences in light of their teacher education coursework and field-based experiences. Teacher educators, in particular, might structure pedagogy and program organization around the diversity of school and life experiences that TCs bring with them into teacher education. Heterogeneity in the preservice teaching population can be recognized by incorporating space for self-inquiry through the writing of personal narratives, oral histories, and ongoing reflection (Florio-Ruane, 2001; Hallman & Burdick, 2011).

This self-inquiry could be paired with critical consideration of what TCs see and experience in their field placements and their university-based courses. The incorporation of service-learning, for instance, can provide TCs with more diverse field placements while engaging them in course-based readings, discussions, and reflections that encourage them to consider the theoretical foundations and implications of teaching and schools (Kinloch & Smagorinsky, 2014). Furthermore, service-learning in teacher education can also position PreK-12 students as integral to teacher preparation (Barnes, 2016), in addition to teacher educators and MTs. In short, teacher educators' methods of preparing novice teachers should complement the diverse range of experiences that are informing their conceptions of how to teach. Making the contradictions visible and assuring TCs that they are inevitable, for the reasons we have outlined in this study, could help to comfort those beginning teachers who feel overwhelmed by the lack of coherency that surrounds their initiation into the profession.

The process of learning to teach is not simple. The novice teacher's developing conception of effective instruction is mediated by their previous experiences in schools as students, the structure of their teacher education program, their cultural and social backgrounds, their various field-based experiences, and the students, teachers, and faculty involved in teacher preparation. But this list is by no means exhaustive. There are a host of other experiences, people, and places that influence the novice teacher as they prepare to enter classrooms on their own. Rather than attempting to oversimplify the process of learning to teach by assuming that they are singularly responsible, teacher education programs can, and we argue that they in fact *should*, embrace the idea that a variety of factors outside of their control contribute to the novice teachers' preparation for the classroom.

Appendix

Interview Questions

1. When you applied to teacher education, what did you expect to learn?
2. Of the things you have been learning in your teacher education program, what has surprised you the most?
3. What are some of the most important things you have learned in your teacher education program so far? [Prompt for specific program classes]
4. How does what you have learned in your teaching methods class fit with what you are learning in your other education classes? In your English department classes?

5. What do you think is your teaching methods professor's image of good teaching in English/Language Arts?
6. What are the ideas you have encountered in teacher education that you think will be most valuable as you look ahead and start teaching?
7. Tell me about your experiences in the field so far in the program. What has stood out for you?
8. What have you learned from the field? What have you learned about the teaching of English/Language Arts?
9. Think of the teacher you have spent the most time with so far. What do you think is his or her image of good teaching in English/Language Arts?
10. How does this teacher's vision fit with what you are learning at the University?
11. In what ways have you had an opportunity to use the methods you have learned in your university courses in your field experiences?
12. What else would you like to say about what you have been learning in teacher education, either in classes or in the field?

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