

**Sharing Experiences to Cultivate “a More Open Mind about Teaching”: A  
Co/Autoethnography of Pre-Collegiate Teaching Experiences**

William J. Davis and Abigail Julian  
Southern Utah University

**Abstract**

The purpose of this study was to create a third space between a teacher educator and an undergraduate student to explore teaching experiences while in high school within non-formal education (NFE) programs in which we participated. We developed a series of five prompts that we responded to individually, meeting via Zoom to discuss our experiences and teacher learning. Our collaborative and iterative analysis revealed four categories related to our non-formal education teaching experiences: 1) how teacher learning was impacted by particular contexts in which it took place; 2) how our experiences revealed different and broader notions of teaching than we observed in our formal education experiences; 3) how certain contradictions shaped, and perhaps inhibited, our learning as teachers; and 4) what we learned from the teaching we did in NFE programs. Our findings depict how young people in recent years may accrue experiences teaching infrequently accounted for in previous scholarship.

*Keywords:* teacher learning; non-formal education; biography; co/autoethnography

**Sharing Experiences to Cultivate “a More Open Mind about Teaching”: A Co/Autoethnography of Pre-Collegiate Teaching Experiences**

Teacher learning is, in at least one respect, paradoxical: teacher preparation programs and courses seek to influence teacher learning at a given point in time, yet teacher learning is an ongoing experience influenced by past, ongoing, and anticipated (future) experiences (Conway, 2001; Feiman-Nemser & Buchmann, 1985; Oral, 2012). In the wake of Lortie’s (1975/2002) finding that teachers’ own experiences as K-12 or pre-collegiate students result in teachers teaching the way they were taught, teacher educators have conceptualized at least some of their research and teaching as an intervention against the detrimental impacts of K-12 school experiences (e.g., Collet & Greiner, 2020; Grossman, 1991; Gray, 2020). However, scholarship also has identified influences on teacher learning like parents (e.g., Greenwalt, 2014), as well as teaching experiences students have in teaching internships, peer tutoring, and other pre-collegiate experiences (e.g., Davis, 2022). These additional influences, along with Smagorinsky and Barnes’s (2014) assertion that the expectations of the current era contribute to fundamentally different experiences with teachers and teaching in schools, suggest that teacher educators have much to learn about the ways in which the incoming education student understands teachers and teaching.

The purpose of this study is to examine influential pre-collegiate experiences outside of K-12 schools, in particular experiences teaching in non-formal education programs. The study was conducted by a teacher educator and an undergraduate student, who met in an education course during the autumn 2020 semester. During a course assignment, the teacher educator, William, realized the student, Abigail, also had teaching experiences while working in a non-formal education program during high school. Although the types of programs we participated in as youth were different—Boy Scouts versus an afterschool club—William saw the potential to learn about/from teacher learning in NFE settings. After the semester concluded, we drew from Taylor and Coia’s (2006) work to establish a third space outside of a university class to conduct a collaborative autoethnography of our experiences teaching in non-formal education programs. This paper is the result of our efforts.

**Theoretical Framework**

**Teacher Learning and Biography**

Experiences, particularly those with teachers in formal educational institutions like schools, are considered a significant, if not dominant, influence on teacher learning. Much like Lortie (1975/2002), who characterized the 12,000 hours young people spend as students—a period referred to as the apprenticeship of observation—as a significant and negative factor in how young people understand teaching, teacher educators have highlighted school experiences as detrimental to teacher learning (Smagorinsky & Barnes, 2014). Being a student in schools in effect is regarded as early socialization into certain beliefs and/or practices, which teacher educators work to challenge and overcome in their teaching and research (e.g., Boyd et al., 2013; Collet & Greiner, 2020; Grossman, 1991; Westrick & Morris, 2016).

Despite ongoing studies describing K-12 school experiences’ impact on grammar instruction, classroom management, and other aspects of teaching (e.g., Cancino et al., 2020; Collet & Greiner, 2020; Gray, 2020; Prinz et al., 2021), few studies of teacher biography or pre-collegiate experiences examine the influence of experiences beyond schools. Exceptions include Greenwalt’s (2014) study of parents as a contributor to the apprenticeship of observation, as well as Davis’s (2022) study of high school students interested in teaching careers, which identified school, family, occupational, and extracurricular influences on pre-collegiate teacher learning.

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

Informal learning experiences during childhood also have been found to be consequential to epistemological and instructional views, particularly in science education (Shively, 2012; Smith 2005; Yerrick et al., 1997; Yerrick & Hoving, 2003). The apprenticeship of observation's narrow focus on school experiences, along with the indelible influence of a given era's school policies and practices, have led some scholars to describe the school-centric socialization model of teacher learning as an insufficient depiction of what teachers learn about/from their pre-collegiate experiences with teachers and teaching (Davis, 2022; Mewborn & Tyminsky, 2006; Smagorinsky & Barnes, 2014).

Recent scholarship has challenged the linear, continuous teacher learning characterized by the socialization model. For example, complexity theories frame teacher learning as a product of various systems and ecologies, and "the ways these systems intersect and recursively interact" (Opfer and Pedder, 2011, p. 377; see also Daly, Milton, & Langdon, 2020). Strom et al. (2018) equated teacher learning to the rhizome, which they described as "a bulb that grows unpredictably in all directions" and thus "changes or becomes different" as a result of the new and novel directions it takes and the connections it forges (p. 9). These new directions and connections may be temporal in nature as well. Teacher educators have utilized reflective approaches like blogs and journals to help preservice teachers learn from their past experiences, yet Conway (2001) and Oral (2013) also have identified a forward direction in learning from experience. To learn from experience is not simply to look back, but to simultaneously engage with anticipated or desired experiences and thus become "extended backwards and forwards in time" in a "transactional dynamic" that changes the individual (pp. 139-144). From these views, learning to teach is not a causal relationship between past experiences and present teaching, but rather a series of nonlinear and collective negotiations with various contexts, systems, and experiences (Britzman, 2003; Cancino et al., 2020; Strom et al., 2018). Few studies to date examine the temporal links between past, present, and anticipated experiences with teaching, including the particular contexts and systems where these experiences intersect.

### **Non-formal Education**

Non-formal education (NFE) constitutes one potential and underexplored source of influences on young people's understandings of teaching. Although conceptualizations of NFE reflect "changing educational landscapes and understandings of 'learning'" (Yasunaga, 2014, p. 6), NFE is generally recognized as "institutionalised, intentional and planned" educational opportunities that are "an addition, alternative and/or complement to formal education" (*International Standard Classification of Education*, 2011, p. 11). NFE initiatives vary in content and type, including literacy, farming, and health education programs, youth serving programs like 4-H and the Boy Scouts of America (BSA), and massive online open courses (e.g., Archibald, 2015; Kleinfeld & Shinkwin, 1983; Latchem, 2018; Loeckx, 2016). Youth participation in NFE is markedly different between countries. A study of 28 developing countries found that the net rate of attendance in NFE programs among primary and secondary age students ranged from 0% to 10.2% (*The extent and impact of non-formal education in 28 developing countries*, 2008). Long-running, institutionalized youth serving programs like the BSA are more common in the Global North, including the United States, United Kingdom, and Israel, ranging in participation from the low hundreds to millions of participants (Simac et al., 2019; What is 4-H, n.d.).

The large size of certain youth serving programs in the United States, along with the emphasis on teaching and learning in some programs, make NFE a potentially powerful influence on beliefs on and conceptions of teaching. Though social changes and the pandemic

have contributed to significant membership declines in the Boy Scouts and Girl Scouts—together, youth membership is estimated to include 1,800,000 youth—other programs like 4-H serve nearly 6 million youth (Crary, 2021, June 30; What is 4-H, n.d.). Teaching plays a critical role in each of these NFE programs; Culp et al. (2007) characterized the ability to teach as “a critical component of a 4-H volunteer’s role” (p 7), whereas Davis et al. (2021) found teaching youth—particularly those with social, emotional, behavioral, and learning challenges—a major challenge for BSA leaders. Exposure to teaching and learning activities in NFE programs is not as frequently encountered as experiences with professional teachers in formal educational institutions, yet NFE programs provide models of teaching to a noteworthy percentage of American youth. Consequently, experiences in NFE programs may contribute to young people’s early teacher learning.

### **Exploring Non-formal Education Experiences through Third Spaces**

Experiences with teachers and teaching have frequently been a subject of teacher education pedagogies and studies, though without a focus on a specific subset of experiences like those with/in NFE. For example, Mewborn and Tyminski (2006) and Knapp (2012) used autobiographical journal writing to examine experiences within and beyond education college/university courses. Other autobiographical writing tasks, such as blogs and chronological life history accounts, have been used by teacher educators within education classes with preservice teachers (e.g., Boyd et al., 2013; Knowles & Holt-Reynolds, 1991). Another approach is interviews of education students and student teachers participating in teacher education courses (e.g., Cancino et al., 2020; Greenwalt, 2014; Sikes & Troyna, 1991). Cancino et al.’s (2020) study typifies the interview approach to exploring past experiences; the authors recruited eight English language teaching preservice teachers participating in a practicum at local schools in Chile, interviewing each participant using narrative frames focused on their elementary and secondary student experiences in English classes. Although the focus of autobiographical writing tasks sometimes included accounts of events beyond formal education institutions (e.g., Knowles & Holt-Reynolds, 1991), the tasks—along with interviews—often involved teacher educators or researchers intentionally focusing preservice teachers on their formal education experiences.

This self-study sought to focus on a particular set of experiences outside of formal education—experiences teaching in NFE programs—through the creation of a third space between a teacher educator and undergraduate student. Third spaces denote a hybrid space that constitutes “a terrain for elaborating strategies of selfhood – singular or communal – that initiate new signs of identity, and innovative sites of collaboration, and contestation” (Bhabha, 1994, p. 2). In teacher education, third spaces have been used to “come together in new less hierarchical ways in the service of teacher learning” (Zeichner, 2010, p. 89), in the process cultivating either/or as well as and/also places, such as in between K-12 schools and the university (Klein et al., 2013; Taylor et al., 2014; Zeichner, 2010). Though space can denote a material or spatial place created by social interactions, space also can be construed as temporal (Gannon, 2010). To explore our NFE experiences, we used collaborative autoethnography (Taylor & Coia, 2006) to create a space that existed beyond university classrooms and K-12 (or non-formal) education contexts, yet an approach that differs from others due to its temporal focus. The following research questions anchored our self-study:

1. What happens when a teacher educator and an undergraduate student facilitate a third space to discuss pre-collegiate NFE experiences?
2. In what ways do pre-collegiate NFE experiences influence our understandings of teaching and learning to teach?

## Method

We have developed a collaborative autoethnographic approach to create a third space to examine teacher learning. Much like Coia and Taylor (2005), we view teaching as “a profoundly personal and social activity,” one that “cannot be accomplished well without self-awareness in a social context” (p. 26). Co/Autoethnography was utilized since it allowed us to produce, and respond to, individual narratives of experience, in the process analyzing these narratives “backwards, forwards, and sideways” (Park & Wilmes, 2019, p. 148; see also Coia & Taylor, 2009).

## Context and Participants

Our collaboration originated in an educational psychology course at Southern Utah University during the autumn 2020 academic term. The study was conducted by a faculty member and an undergraduate student, both of whom were affiliated with the university’s College of Education and Human Development. The genesis of our collaboration was an essay assignment in the educational psychology course, which asked students to discuss adverse childhood experiences and trauma.

At the time of the self-study, William was in his first-year teaching in the Department of Teacher Education. His scholarly and teaching interests focused on early teacher learning and the decision to teach; his dissertation examined the ways in which high school students interested in teaching careers described their experiences with teachers and teaching across their lives. In addition, William had developed interests in NFE while working as a researcher at Montclair State University in the BSA BEST Study, a nationwide study of the Boy Scouts of America. William had participated in multiple BSA programs as a youth, with specific roles he held in Boy Scouts (today called Scouts BSA) like troop guide contributing to his interest in teaching.

Abigail was a sophomore undergraduate student when the self-study was conducted. Although she was not pursuing a degree in education or a teaching credential, Abigail was a family studies major, a major housed in the College of Education and Human Development. Abigail expressed interests in becoming involved in nonprofit or volunteer organizations, involvement that might include teaching or educational work, but these interests were part of an overarching interest in working with young people.

As a high school student, Abigail had worked in a teaching role in a summer and after-school club, which we refer to in this paper as Kids Club (a pseudonym). Kids Club was a youth serving program modeled after (but unaffiliated with) the Boys and Girls Club, supporting youth between the ages of five and 16. Participants were organized into classes using formal education grade levels; Abigail primarily worked with a class of fourth and fifth graders. The purpose of the program was to provide a range of supports for young people and their families by creating a sense of community, supplementing formal education through homework assistance and targeted lessons, hosting a food pantry for families, and connecting parents with a range of counseling and rent assistance services. Though not strictly limited to impoverished families, Kids Club was located in a low-income area in northern Utah, and the majority of participants came from families that struggled financially.

In the essay assignment for our educational psychology course, Abigail recalled her experiences working at Kids Club. The assignment required students to describe adverse childhood experiences and trauma informed practices as well as recount interviews conducted with educators concerning their experiences with trauma and adverse childhood experiences. In addition to meeting these requirements, Abigail briefly described her experiences at Kids Club during high school, including working with a first-grade student who Abigail believed had

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

experienced significant trauma in his life. The club appeared to William to be a significant teaching experience for Abigail, which took place in a program that could be considered NFE; it also reminded William of his own teaching experiences as a troop guide in Scouts BSA during high school. Near the end of the semester, William invited Abigail to explore their respective experiences with NFE and teaching.

Following the conclusion of the educational psychology class, we discussed the contours of a possible self-study project. William prepared a two-page document that briefly outlined two possible projects: a co/autoethnography in which we explored our experiences individually and collectively, and a more traditional researcher/subject interview study. After discussing the key differences, including an overview of co/autoethnography and third spaces, we decided to pursue a co/autoethnography. We then completed research ethics training and secured approval from the Southern Utah University Institutional Review Board in January 2021.

### Data Collection

Our study commenced in late January 2021 when we met via Zoom to identify a series of prompts to respond to in writing. This initial meeting was little more than a collaborative brainstorm, where we listed several possible prompts to examine NFE and teaching. The initial prompts were all in question form, asking us to write about the types of teaching we witnessed in our respective NFE contexts, as well as the critical incidents and inclusive environments we could recall. We also reviewed and discussed the research questions for the study to ensure the prompts tied back to aspects of the study's overarching questions. After proposing, striking, and editing questions, we agreed to each respond to five prompts using the journaling app Evernote. Table 1 lists the final prompts.

**Table 1**

#### *Journal Prompts*

Prompt Number	Prompt
1	What does learning look like in a non-formal education setting? What does teaching look like? How does that compare to formal education experiences?
2	What are some challenging situations or episodes encountered when working with young people in non-formal education ("critical incidents")? What are some examples of specific activities or lessons observed or conducted in non-form
3	How can non-formal education and formal education support one another? How are their strategies and/or principles similar and/or different?
4	How do we create inclusive environments in non-formal education? How is the cultivation of such environments different from how something similar might be in formal education?
5	"What happens when a teacher educator and an education student facilitate a third space to discuss pre-collegiate, non-formal education experiences?"  Possible Sub-questions: 1. What is gained when sharing experiences with people of different yet related experiences?

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

	<ol style="list-style-type: none"><li>2. What is gained or clarified when sharing experiences outside of a class situation (or outside of the NFE program itself)?</li><li>3. What is lost or distorted when sharing experiences outside of a class situation (or outside of the NFE program itself)?</li><li>4. What value, if any, do you see in thinking about past experiences with teaching in a somewhat structured way?</li><li>5. What value, if any, do you see in thinking about past experiences with teaching <i>and</i> your current studies/anticipated experiences (whether these are in teaching, education, or otherwise)?</li></ol>
--	---

The study took on a cyclical pattern of journaling and online meetings during the next several months. We worked through the writing prompts in sequential order, typically taking 1-2 weeks to independently write a response in Evernote. Although we adjusted the settings of Evernote so that our journal entries were shared with one another, we wrote our initial responses without viewing the other researcher's journal, only viewing each other's entries just before our meetings. After completing our responses, we arranged to meet via Zoom to discuss our responses to the prompt. These conversations were largely unstructured, though they generally started with each of us summarizing our written response before pursuing commonalities and differences, as well as surprising or interesting anecdotes. Each meeting was recorded and initially transcribed using Zoom. At the end of each discussion, we collaboratively identified takeaways from the meeting, which typically took the form of 3-5 single sentence statements about what we felt we learned from journaling and discussing the prompt further. Finally, we reviewed the next prompt and revised it for clarity and/or to ensure we were responding to a new topic or an alternate angle rather than repeating something that came up in a previous discussion. We then repeated this process until we responded to and discussed each of the five agreed upon prompts.

The study generated several data sources for analysis. We both created journal responses, which were freeform though mostly text-based; however, Evernote permitted the insertion of links, as well as the upload of images and other media, which we occasionally used in our entries. The other primary data sources were the video recordings and transcripts of our five meetings. Zoom generated a transcript from these meetings, which was later reviewed and corrected as needed. In addition to the journal responses, video recordings, and transcripts, William maintained a running set of notes using Google Docs. This document was edited during meetings to generate an outline of the conversation and its key points. The note document is also where the takeaways were listed at the end of each meeting.

### **Data Analysis**

Data analysis for our study was collaborative and iterative, beginning with the co-development of takeaways at the end of each meeting. The purpose of the takeaways was two-fold. First, ending the meeting by identifying important takeaways allowed us to review the meeting notes and our own recollections of our discussion to provide a concise summary. Second, and relatedly, the takeaways allowed the meetings to be distilled into a simpler form to begin to compare and contrast topics and potential themes across meetings.

After completing the final meeting in the journaling and meeting cycle, we met again to develop a codebook for initial coding (Saldaña, 2016). We compiled the takeaways from each meeting into a single table (see Table 2), which served as the starting point in our discussion. As we reviewed the takeaways, we engaged in a more far-reaching reflective conversation

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

concerning our NFE experiences and what we had discussed; this conversation led us to brainstorm and record a list of emerging themes. We agreed on four initial codes to start with—boundaries, inclusivity, individual roles and responsibilities, and program structure and supports—for which we then developed working definitions.

**Table 2**

*Takeaways from Zoom Meetings*

Meeting	Takeaways
Meeting 1	<ol style="list-style-type: none"> <li>1. The necessity/helpfulness of structure (e.g., plans; guidelines; roles) in teaching</li> <li>2. Lack of preparation for non-formal ed roles (certain aspects of those roles?)</li> <li>3. Greater array/variety of learning/teaching in NFE than formal (also real world learning)</li> </ol>
Meeting 2	<ol style="list-style-type: none"> <li>1. Figures out boundaries and what those are in non-formal education roles</li> <li>2. Having access to resources to help work through specific situations, challenges/problems, etc.</li> </ol>
Meeting 3	<ol style="list-style-type: none"> <li>1. Networks are more important--more effort put into this, more opportunities to have parent/community involvement. Networks do not always have the same purpose, though; some are means to ends, others are ends to themselves (see other NFE programs).</li> <li>2. More freedom/choice for instructors and/or youth in NFE, whereas the structures and requirements of formal education are more rigid or sharply defined in many cases.</li> <li>3. Personalization--freedom/choice can allow things to be more personalized for individual learners' needs, interests, etc.</li> </ol>
Meeting 4	<ol style="list-style-type: none"> <li>1. Programmatic/institutional presses can impact inclusivity because certain outcomes are expected/demanded. In NFE programs, this may be less of a factor.</li> <li>2. Special needs/education: structures to help students and provide accommodations are significant for non-formal educators, as they can be for formal educators</li> <li>3. Inclusivity in NFE means many different things, some of which may lead to inclusive practice but others of which might prevent it.</li> </ol>
Meeting 5	<ol style="list-style-type: none"> <li>1. Importance of expectations, plus other structural-ish elements (encouragement, support, training)</li> <li>2. Views of other experiences/perspectives, exposure to other areas of non-formal education</li> <li>3. "Practice teaching" as a high school student/aged person--different experiences, types, challenges</li> </ol>

We then conducted initial coding of the study's data. All data was imported into QSR International's NVivo 12 qualitative analysis software. NVivo permitted an automated import of our journal entries from NVivo. We also imported Zoom video recordings and transcripts into NVivo so the two could be reviewed together within NVivo; transcripts were reviewed and edited for accuracy, then reformatted so they would properly import into NVivo. The NVivo project was then duplicated so each of us had a copy, and we began coding meeting by meeting. To enhance reliability, we consolidated our projects and reviewed our coding after coding each



## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

meeting to identify areas of divergence. We then examined instances of divergent coding, discussed our respective processes, and revised our initial codes. We repeated this process until we coded all journal entries and transcripts using our initial codes.

From our initial coding, we began to note a series of emergent themes across our initial coding and in memos. We isolated a series of themes, and William engaged in second-cycle coding to highlight these emergent themes. Once this coding was completed, the emergent themes were compiled in an infographic with coding examples, which we then reviewed together and revised. The revised themes are presented in greater detail in the findings below.

### **Findings**

As we collaboratively analyzed our NFE teaching experiences, we found that our process helped to reveal four characteristics or properties of teaching. In the sections below, we outline each of these four characteristics or properties.

#### **Revealing the Contextual Nature of Teaching**

Although both programs we discussed could be considered NFE, their structure—and our teaching roles within them—could be quite different, leading us to see teaching as intimately linked to the context in which it takes place. Abigail framed this contextual nature in terms of complexity and uniqueness, describing teaching/mentoring as “very complex and unique to individual circumstances.” As we discussed our teaching experiences in these NFE programs, we did observe certain similarities, yet we were struck by the ways in which both programs defined and shaped teaching, and thus indelibly impacted our early teaching experiences.

Kids Club and Scouts BSA presented stark differences in terms of program structure. Kids Club mirrored the nationwide Boys and Girls Club Organization, though it was not an affiliate of the program. Participants were organized in classes in which two-grade bands were joined together, led by Abigail and her peers: kindergartners and first graders; second and third graders; and fourth and fifth graders. Scouts BSA’s organizational scheme was entirely different, focused on the patrol method, which organized scouts heterogeneously into small groups called patrols; in some instances, a troop might have a new scout patrol, but otherwise the patrols included a mix of ages. As a Troop Guide, William was primarily tasked with teaching and coaching younger scouts in basic skills like knot-tying, camping skills, and first aid. The programs also differed in their fundamental purpose. Abigail recalled Kids Club as a program where “the focus was not on objectives, mastery of content or other necessary academic components,” yet Scouts BSA did maintain a focus on scout-specific content and the mastery of skills, which scouts spent considerable time demonstrating.

Differences in program structure and purposes contributed to differing focuses in teaching as well. In the absence of the emphasis on objectives and content, along with traditional assessment methods like grades, Abigail found there was more time to focus on exploring student creativity and interests through group projects. These projects often represented activities “that cannot be as easily measured” using traditional assessments used in formal education. Abigail consistently witnessed a worthwhile trade-off for this challenge: “I saw youth develop higher self-esteem through the positive interactions and feedback they experienced at the afterschool program.” Even when activities had a more academic focus, the personalized approach to learning and feedback appeared to enhance engagement and self-esteem.

Kids Club provided a range of community and personal supports within and beyond academic activities. Reading specialists worked with participants, usually one-on-one, to practice fluency, comprehension, and spelling. In addition, Kids Club employed specialists to lead what Abigail described as a group therapy program, where youth “learn how to use healthy coping

strategies, build resilience, and encourage mindfulness.” Physical activity also was built into the program, which might include periods of free play. However, Abigail and Kids Club’s youth participants spent much more time “focused on aiding families and building a sense of community.” To support low-income families, Kids Club regularly hosted a food pantry, and it also maintained a donation room with clothing and school supplies.

The challenge for William and his teaching role in Scouts BSA was the absence of the kinds of structure and supports Abigail found at Kids Club. Scouts BSA promoted an idealized form in resources like *Junior leader handbook*, a BSA publication that outlined the youth leadership roles and troop structures, including the new scout patrol. William had read this manual, yet quickly realized that his particular troop did not use the troop and patrol methods the way the manuals outlined them. Unfortunately, the adult leadership was unfamiliar with the Troop Guide role, as it had not been utilized in the troop prior to William assuming the role. Not only were the BSA-produced resources not helpful in this particular context, but the adult leadership was unable to advise William on how to approach his role as troop guide. “It was like I needed this type of teaching to have a definitive structure,” William wrote in Prompt 1, and when he failed to see such structure he found that he “couldn’t figure out how to teach in this setting.”

Though William mainly pointed to print resources and his teaching role in Scouts BSA, Abigail identified a more effective and powerful resource: the people with whom she taught and worked at Kids Club. Very little training was conducted from the start of Abigail’s employment at Kids Club, which at first left her feeling “very unprepared and inadequate.” However, her interactions with other Kids Club staff members helped her to learn on the job despite the lack of initial training or induction. Unlike Scouts BSA troops, which rely on adult volunteers to oversee program implementation, Kids Club hired a director, assistant director, and teachers, who collaborated with volunteers and specialists. According to Abigail, the director maintained a primarily administrative role, overseeing registration and finances. The assistant director’s role was tied to teachers and their work; she would “[help] us with planning and ideas” as well as “coming in our rooms and saying if we needed help and things.” Perhaps the better resource was Abigail’s peers, who met each day after the kids returned home. “[W]e would meet together before we left for a few minutes,” Abigail recalled, and then discuss “if one of us had a problem” and “what I’ve tried and what’s kind of worked or didn’t work.” From these conversations, Abigail was able to offer and receive suggestions and advice from the director and her peers, which “definitely worked sometimes” and always “gave...a lot of ideas that did help.”

### **Revealing Different and Broader Notions of Teaching**

As a result of our experiences in NFE, as well as our conversations in this study, we came to see that within the NFE programs we participated in there were various forms of teaching employed, some repeatedly used in certain contexts within the NFE program. William recalled teaching at BSA summer camps, where didactic and experiential forms of teaching were utilized:

I also encountered this didactic type of learning approach--or "observational" or "passive" learning maybe?--at Scout camp as well. At camp during the summer, we would sign up for "merit badges," which are like short courses on specific topics. Some merit badges were necessary for rank advancement; others could be done just out of personal interest. Some merit badge instruction essentially had a classroom component, where you would sit in chairs and maybe even at desks--albeit in a lodge or small wooden shack rather than the traditional classroom--and learn by listening to the instructor, watching presentations, watching demonstrations, and so on. This was fairly common, yet merit badge instruction

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

wouldn't consist solely of someone lecturing. That may have been a part, but there was almost always an experiential aspect of the program as well, where we would have to do something or perform some skill.

Teaching also took various forms at Kids Club. Abigail categorized instruction within Kids Club in three ways: physical activity, participate in free play, and educational time. Within these categories, teachers took on different roles and tasks; educational time included youth independently reading, as well as supports and activities Abigail structured and led, including creative thinking exercises and addition and subtraction games.

Our discussions about teaching in our respective NFE settings revealed approaches or processes impacting teaching in NFE settings. For example, William was surprised to find that Kids Club engaged in an accreditation process, which Abigail recalled shaping some of teachers' practices and record keeping with lesson plans and objectives. Despite the emphasis accreditation placed on "bigger concepts," Abigail found the focus in meetings with the director and other teachers to be "specific situations" Abigail and her peers encountered while working with youth. Abigail found it interesting to hear about "the structure, population, attributes, and activities of the [Boy] Scouts," remarking how preservice teachers' exposure to different teaching experiences helped to cultivate "a more open mind about teaching in general" and possibly "more tools...when they actually enter the classroom/NFE setting." We noted that enhanced knowledge of these different and broader notions of teaching may have been advantageous for the contradictions we encountered in our NFE teaching practice.

### **Revealing Contradictions**

Across our conversations we surfaced several contradictions in our NFE experiences that had the potential to lead to growth as teachers. For example, although Abigail was not specially trained in trauma informed practice, she found herself working with youth who exhibited difficult behaviors, including a first grader who "had been through a tremendous amount of trauma in his young life." Despite the lack of formal training related to trauma or adverse childhood experiences, Abigail discovered on the job that "flexibility was needed to best suit his needs"; if he was permitted "to make choices and feel in control of his surroundings," he was often calmer and more willing to participate. Abigail's ability to problem-solve on her own and develop workable solutions not only proved valuable within the NFE setting, but also may have made her more receptive to learning experiences related to trauma. She noted that it was "interesting" later to learn about trauma and adverse childhood experiences in the educational psychology class, as well as in a special conference-based course related to family studies.

Not every contradiction spurred growth or learning as a teacher, with William's experience as a troop guide perhaps exemplifying contradiction-as-hindrane in teacher learning. Prior to becoming a troop guide, William read the *Junior leader handbook*, which described the troop guide role as a teacher and mentor of new scouts, even playing a role in overseeing patrols exclusively consisting of new scouts. "Part of my frustration with Scouting was how our troop didn't really adopt the model that I learned about in the books," William wrote in his journal, referencing the *Junior leader handbook*. The deviation between the handbook and the way William's troop was run "made it hard to *do the job* of a [t]roop [g]uide," particularly because William had trouble fitting in to a role where he was teaching his peers as often as he was younger scouts. With the differences between his expectations for the role and work and the reality within the troop, William found himself unable to teach in this setting." He even went so far as to suggest that his inability to successfully teach as a troop guide "perhaps...had

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

something to do with how I didn't stick it out in the BSA." William quit Scouts BSA within a year of becoming troop guide, despite his significant interest in teaching.

### **Revealing Learning *from* Teaching**

Even though contradictions may have hindered teacher learning within a given context, they—and experiences with teaching in NFE programs overall—almost always resulted in some form of learning, or perhaps a takeaway that held (or might hold) significant importance for the future. We both found an interest in working with young people from our NFE experiences. “[H]aving this job definitely helped me realize what kind of overall work I kind of wanted to do,” Abigail said, identifying interests in “teaching and non-formal education” as well as social work. William may have left the BSA, yet his interests in teaching and working with youth only increased; around the time he left Scouts BSA, he started coaching youth soccer—youth sports also have been described as a form of NFE (e.g., Batlle, 2019)—with a coach he had played for in middle school. Told by his coach that any contribution on his part would be positive, William was freed of the expectations of structure and roles he had in the BSA with the troop guide position, leaving him to construct his own teaching role within the team. Although the learning described in this paragraph is more personal in that it relates to interests or desires for the future, other forms of learning were more directly related to teaching itself.

One aspect of this teaching-specific learning is the idea that all teachers have certain felt needs—desires they have for themselves and for their work. Such needs are contextual and perhaps highly variable: needing to develop approaches for working with students who have experienced trauma; needing to learn to relate with young people who might also be chronological peers; needing to be able to work with youth who have an array of knowledge and abilities; and many others. Needs for the two of us as teachers often reflected specific needs of the young people we worked with, such as Abigail's student who dealt with trauma. By identifying our own teaching needs and working towards meeting them, we worked to cultivate approaches that were intentional and responsive to the young people who participated in the NFE program.

Finding ways to meet needs also helped us to learn about the fundamental nature of learning to teach. Abigail found that part of learning to teach was done through interactions with young people or on the job, which led her to integrate certain practices into her teaching like allowing youth to make choices about their learning and activities within the class. William witnessed different ways classroom and experiential learning were integrated together. Similarly, Abigail also noticed differences between teachers in formal education settings and herself in an NFE context; although both types of teachers often attempted to cultivate a mentoring role, Abigail believed she devoted more time and energy to mentoring so she could build trust and discuss personal issues with students. Experiences teaching in NFE settings allowed us to see the similarities, as well as the differences, between our teaching and what we saw teachers do in formal education settings.

Finally, we also learned about the existence and importance of several structures and supports in shaping our teaching experiences. William found an absence of expected structure, and little support to overcome the contradiction between his expectations and the realities of the teaching situation he faced as a troop guide; the result was a failure to succeed and learn to teach in this role. At Kids Club, Abigail was able to connect with peers doing similar work, yet her work also was adjacent to the work of the directors, therapists, reading specialists, and other resources. Although she wished she had been trained to work with youth who experienced certain challenges at home and in school, Abigail saw her teaching as connected to the work of

her colleagues, who could serve as the kinds of knowledgeable others William struggled to find in Scouts BSA. We came to see teaching as collaborative work, and when it became more individual and isolated, the experience was typically not a good one for us or the youth with whom we worked.

### **Discussion**

The purpose of this study was to create a third space between a teacher educator and an undergraduate student to explore teaching experiences within NFE programs we participated in while in high school. We developed a series of five prompts that we responded to individually, meeting via Zoom after we completed our own writing to discuss our experiences and teacher learning. As we met, we engaged in a collaborative and iterative analysis of the data we produced from our writing and meetings; we developed key takeaways from each meeting, which were later refined into codes we used to further examine the data upon the completion of our writing prompt/meeting cycle. We found that the third space we used to examine teacher learning in NFE settings revealed four characteristics or properties of teaching: 1) how teacher learning was impacted by particular contexts in which it took place; 2) how our experiences revealed different and broader notions of teaching than we observed in our formal education experiences; 3) how certain contradictions shaped, or perhaps inhibited, our learning as teachers; and 4) what we learned from the teaching we did in our respective NFE programs. In the following sections, we discuss the experiential capital undergraduate students may bring to teacher preparation, and how and where to engage with such experiences in teacher education programs.

### **Reconsidering What Students Bring to Teacher Preparation**

The results of this study offer some evidence of the possible differences in experience with teaching across generations, which may bear important consequences for teacher learning. When Lortie (1975/2002) conducted his interviews for *Schoolteacher*, he did so with professional teachers; Lortie's findings with teachers across three metropolitan areas have been mapped on to subsequent generations of professional and preservice teachers, despite differences in exposure to and experiences with teaching. Though scholars have noted the limitations of Lortie's (1975/2002) socialization view in explaining teacher learning from K-12 experiences (Davis, 2022; Mewborn & Tyminsky, 2006; Smagorinsky & Barnes, 2014), few studies have identified what makes current teachers' understanding of teaching different. Smagorinsky and Barnes (2014) called for examinations of K-12 experiences' "influences with new generations of teachers in new eras of expectations" (p. 50), suggesting school priorities like accountability indelibly shape young people's experiences with teachers and teaching. In this study, a different force is presented: experiences in NFE programs. Today's young people may have more, and more substantive, opportunities to engage in teaching work, which may well carry over into their views about what professional teachers can and should do in their work in schools.

Other programs and individuals may shape early teacher learning, yet these influences also remain underexplored. Several of Davis's (2022) high school-aged participants participated in peer tutoring or teaching internships, experiences that may also reflect differences across eras, though differences focused on curricular offerings rather than school expectations (c.f., Smagorinsky & Barnes, 2014). Enrollment surveys in our institution's introductory education courses consistently find that 25% of students indicate they have participated in peer tutoring; up to 30% indicate they participated in a teaching internship class in their school. Admittedly, these figures are limited to one course in a single university's teacher preparation program, yet they—along with the current study, Davis's (2022) study of high school students' experiences with

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

teachers and teaching, as well as Greenwalt's (2014) study of parents' impact on the apprenticeship of observation—suggest that K-12 schooling is but one influence on undergraduate (and education) students' views of teachers and teaching.

Few teacher educators or education researchers would dispute the significance of K-12 school experiences—and perhaps some would agree that teacher learning is influenced by a broader set of experiences than just K-12 schooling—yet the field to this point has not developed a refined understanding of the incoming undergraduate student as a learner when it comes to teaching. Instead, studies examining preservice teachers' apprenticeships of observation and/or studies employing autobiographical blogging or journaling activities focus on deficits or misconceptions in teacher learning (e.g., Collet & Greiner, 2020; Gray, 2020; Prinz et al., 2021). The focus on deficits or misconceptions is not universal, though. For example, Knapp (2012) examined an autobiographical journaling exercise in an educational psychology class; she found her university students brought experiential assets to their learning as teachers, suggesting teacher educators help their students to surface positive, consequential experiences rather than dwelling on negative or harmful ones. Other scholarship, like Wilson and Corbett's (2001) study of school reform in Philadelphia, has asserted that secondary students develop a level of pedagogical expertise by virtue of their experiences in schools with teachers. For teacher educators to better understand this expertise, or just what their students bring to teacher education, they must at least be open to the prospect of their students possessing experiential assets that they can bring to bear on their learning. There also must be a place to examine experiences with teachers and teaching.

### **Reconsidering How and Where to Engage with Experiences**

When such examinations of experiences with teachers and teaching take place, they are likely to happen in a college or university classroom since an overwhelming majority of teachers are prepared in these institutions (Flaherty, 2020, October 28). Although teaching has been described as deeply personal (e.g., Greene, 1978; Oral, 2013), the learning in college or university classrooms is not necessarily personal. The class we met in—an educational psychology class—may have included assignments that offered opportunities to share experiences, yet the class was primarily focused on theories of learning and development. However, Greene's (1978) discussion of the personal reality of teaching seems important to note here: the kinds of learning that are found in the “academic disciplines” are only valuable when such learning “illuminate[s] the experience of the learner” and “enable[s] him or her to order the materials of his/her own lived world” (p. 33). The same could be said for education and teaching courses. Theories of learning and development have limited impact on our becoming as teachers if such learning is framed as a spatial object, or learning that is transferred from teacher to learner yet ultimately disconnected and perhaps even irrelevant to learners' personal experience (Oral, 2013).

Teacher educators are likely aware of the theory-practice gap sometimes attributed to teacher preparation (e.g., McGarr et al., 2016), yet Greene's (1978) and Oral's (2013) emphasis on experience—both lived and anticipated—can serve as a bridge between theory and practice. In the theory-practice gap described by McGarr et al. (2016) and others, educational theory is viewed by education students as detached from teaching practice; McGarr and colleagues concluded that the key issue in the theory-practice gap is not so much education students' opinions about educational theory, but rather “their ability to reflect critically on all sources of information they encounter” (p. 12). This reflection must include the ability to link ongoing learning with one's own experiences with teaching, as Abigail did in her essay assignment. By

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

linking the essay topic—trauma and adverse childhood experiences—with her own teaching experiences, Abigail was able to begin engaging with “the *meaning* of the events of the recent and remote past as well as the imminent and far-off future” (Oral, 2013, p. 144). Abigail had taught students who had experienced trauma, and thus could see theories and ideas related to adverse childhood experiences in a very personal manner. She had already accrued a form of practice, which helped to illuminate the learning sought in class. The essay served as the impetus for this study and a more thorough investigation of Abigail’s experiences with teaching.

Creating a third space to engage in this research allowed us conduct this more thorough investigation, yet we still find ourselves wondering how this kind of exploration of experience could be conducted within the large-enrollment credit-based structure of college/university teacher preparation programs. Setting aside time to write about and to discuss our experiences with teaching in NFE programs afforded us opportunities to examine selfhood communally (Bhabha, 1994) while mitigating concerns over hierarchy, power, and control of our collaborative study (Zeichner, 2010). However, a series of perhaps fortuitous events were necessary to even bring us to this study: a student linking course topics and assignments to her own teaching experiences; a teacher educator interested in the influence of prior experiences on teacher learning; and a willingness between the student and teacher educator to commit to a study outside the credit structure of the university. Lacking any one of these three elements, the study would almost certainly never have taken place. To scale the use of this type of third space to a single class, let alone a single teacher preparation program, seems challenging, particularly if the goal is to cultivate a third space that is less hierarchical than a typical college/university education course.

### **Implications**

As teacher educators, our goal should not be to adhere to a single form or structure like the third space used in this study, but rather to (re)imagine the purposes and possibilities of teacher preparation. With this orientation towards teacher preparation in mind, we see several implications following from our collaborative autoethnography. Implications can be identified at the instructor, program, and field levels of teacher education.

First, teacher educators must make intentional efforts to help education students connect their learning in classes to the teaching they have observed and engaged in during their lives. Journals, blogs, interviews, and other (auto)biographical assignments all have been used in teacher education courses for various purposes, including linking prior experiences to course principles or content (e.g., Boyd et al., 2013; Knapp, 2012; Sikes & Troyna, 1991). The co-development of prompts in the current study offers an approach for mapping out a collaborative self-inquiry, which can then be threaded through course assignments and activities. Education students could engage with these prompts during class discussions or asynchronously through journals or blogs. The key, in our view, is finding ways to help students connect their learning to their own experiences, particularly if their experiences include various forms of teaching.

Second, faculty in teacher education programs must come together to examine their own assumptions about students’ prior experiences with teachers and teaching, and how these experiences are engaged with across the teacher preparation program. We are not suggesting that coming together means achieving universal agreement, but rather consensus on a few essential or non-negotiable elements. For example, cohorts have been utilized in teacher preparation programs to help education students support one another and cultivate a professional and intellectual community (e.g., Seifert & Mandzuk, 2006); cohorts also might be utilized to cultivate a closer, more personal relationship between teacher educators and education students,

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

as well as between education students themselves. Such closeness could help education students to find links between classroom learning and their own experiences, and eventually between their experiences, their learning, and their practicum or student teaching experiences. Structural issues may make it difficult to establish multi-year cohorts, but combining a cohort approach with exploration of personal experiences might be achievable in a finite sequence of related classes that students take together. Yet for kind of change to be considered, faculty must agree that personal experiences and relationships with students are essential elements of teacher learning for which programmatic changes are worth considering.

Finally, there is a need for additional research on the influence of prior experiences on teacher learning. Although research that employs constructs like Lortie's (1975/2002) apprenticeship of observation continues to be conducted (e.g., Botha, 2021; Collet & Greiner, 2020; English, 2021), scholars also have criticized the use of Lortie's (1975/2002) work as a singular explanation for how education students understand teachers and teaching (e.g., Davis, 2022; Mewborn & Tyminski, 2006; Knapp, 2012). Davis's (2022) study of high school students interested in teaching careers and Greenwalt's (2014) study of the influence of parents on the apprenticeship of observation have advanced the previous work on personal biography (e.g., Holt-Reynolds, 1992; Knowles & Holt-Reynolds, 1991), identifying powerful influences beyond experiences in formal education settings like schools and universities. Teaching internships, peer tutoring, and other teaching experiences for youth and adolescents are likely more common than they were fifty years ago, contributing to the differences across eras in expectations and contexts that Smagorinsky and Barnes (2014) described. Teacher educators ultimately will benefit from a more complete and nuanced understanding of the kinds of initial views or understandings of teaching students hold as they enter teacher preparation programs.



## References

- Archibald, T. (2015). "They just know": The epistemological politics of 'evidence-based' non-formal education. *Evaluation and Program Planning*, 48, 137-148.  
<https://doi.org/10.1016/j.evalprogplan.2014.08.001>
- Battle, I.C. (2019). Youth sports and non-formal education: Social justice, or social control? *Infed*. <https://infed.org/mobi/youth-sports-and-non-formal-education-social-justice-or-social-control/>
- Bhabha, H.K. (1994). *The location of culture*. Routledge.
- Botha, C.S. (2021). Turning windows into mirrors: Digital stories as a teaching strategy to explore the apprenticeship of observation in pre-service teachers. *International Journal of Learning, Teaching and Educational Research*, 20(11), 1-16.  
<https://doi.org/10.26803/ijlter.20.11.1>
- Boyd, A., Gorham, J.J., Justice, J.E., & Anderson, J.L. (2013). Examining the apprenticeship of observation with preservice teachers: The practice of blogging to facilitate autobiographical reflection and critique. *Teacher Education Quarterly*, 40(3), 27.
- Britzman, D.P. (2003). *Practice makes practice*. State University of New York Press.
- Cancino, M., Durán, M., & Solorza, C. (2020). What learning can do to teaching: Assessing the impact of apprenticeship of observation on pre-service teachers' beliefs. *English Teaching & Learning*, 44, 297-312.
- Coia, L., & Taylor, M. (2005). From the inside out and the outside in: Co/autoethnography as a means of professional renewal. In C. Kosnik et al. (Eds.), *Making a difference in teacher education through self study* (pp. 19-33). Springer.
- Coia, L., & Taylor, M. (2009). Co/autoethnography: Exploring our teaching selves collaboratively. In L. Fitzgerald, M. Heston, D. Tidwell (eds.), *Research methods for the self study of practice* (pp. 3-16). Netherlands: Springer. [https://doi.org/10.1007/978-1-4020-9514-6\\_1](https://doi.org/10.1007/978-1-4020-9514-6_1)
- Collet, V.S., & Greiner, A.C. (2019). Revisioning grammar instruction through collaborative lesson study: A new apprenticeship of observation. *Literacy Research and Instruction*.  
<https://10.1080/19388071.2019.1709927>
- Conway, P.F. (2001). Anticipatory reflection while learning to teach: From a temporally truncated to a temporally distributed model of reflection in teacher education. *Teaching and Teacher Education*, 17, 89-106.
- Crary, D. (2021, June 30). Boy Scouts, Girl Scouts suffer huge declines in membership. *AP News*. <https://apnews.com/article/only-on-ap-health-coronavirus-pandemic-7afeb2667df0a391de3be67b38495972>
- Culp, K., McKee, R.K., & Nestor, P. (2007). Identifying volunteer core competencies: Regional differences. *Journal of Extension*, 45(6). <https://joe.org/joe/2007december/a3.php>
- Daly, C., Milton, E., & Langdon, F. (2020). How do ecological perspectives help understand schools as sites for teacher learning? *Professional Development in Education*, 46(4), 652-663. <https://doi.org/10.1080/19415257.2020.1787208>
- Davis, W.J. (2022). *Exploring a new teacher education frontier: A narrative inquiry of high school students' conceptions of teaching* [Manuscript submitted for publication.] Department of Teacher Education, Southern Utah University.
- Davis, W.J., Cox, M., Tevington, P., Brown, J.B., & Linver, M.R. (2021). "That's just a part of growing up": A study of non-formal educators' lay theories of adolescence. *Journal of Adolescent Research*. <https://doi.org/10.1177/07435584211056076>

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

- English, A. (2021). Assessing the role of exposure to learning styles theory on K-12 teachers: A survey-based analysis. *Teacher Education Quarterly*, 48(4), 78-96.
- Feiman-Nemser, S., & Buchmann, M. (1985). Pitfalls of experience in teacher preparation. *Teachers College Record*, 87(1), 53-65.  
<https://www.tcrecord.org/books/Content.asp?ContentID=677>
- Flaherty, C. (2020, October 28). 'Death by a thousand cuts'. *InsideHigherEd*.  
<https://www.insidehighered.com/news/2020/10/28/teacher-education-programs-continue-suffer-death-thousand-cuts>
- Gannon, S. (2010). Service learning as a third space in pre-service teacher education. *Issues in Educational Research*, 20(1), 21-28.
- Gray, P.L. (2019). Mitigating the apprenticeship of observation. *Teaching Education*, 31(4), 404-423. <https://doi.org/10.1080/10476210.2019.1631785>
- Greene, M. (1978). Teaching: The question of personal reality. *Teachers College Record*, 80(1), 23-35.
- Greenwalt, K.A. (2014). Frustrated returns: Biography, parental figures, and the apprenticeship of observation. *Curriculum Inquiry*, 44(3), 306-331.
- Grossman, P.L. (1991). Overcoming the apprenticeship of observation in teacher education coursework. *Teaching & Teacher Education*, 7(4), 345-357.
- Holt-Reynolds, D. (1992). Personal history-based beliefs as relevant prior knowledge in course work. *American Educational Research Journal*, 29(2), 325-349.  
<https://doi.org/10.3102/00028312029002325>
- International Standard Classification of Education*. (2011). UNESCO Institute for Statistics.  
<http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>
- Klein, E.J., Taylor, M., Onore, C., Strom, K., & Abrams, L.W. (2013). Finding a third space in teacher education: Creating the MSU/NPS urban teacher residency. *Teaching Education*, 24, 27-57. <https://doi.org/10.1080/10476210.2012.711305>
- Kleinfeld, J., & Shinkwin, A. (1983). Making good boys better: Nonformal education in Boy Scouts. Retrieved December 19, 2019 from  
<https://files.eric.ed.gov/fulltext/ED239815.pdf>
- Knapp, N.F. (2012). Reflective journals: Making constructive use of the "apprenticeship of observation" in preservice teacher education. *Teaching Education*, 23(3), 323-340.  
<https://doi.org/10.1080/10476210.2012.686487>
- Knowles, J.G., & Holt-Reynolds, D. (1991). Shaping pedagogies through personal histories in preservice teacher education. *Teachers College Record*, 93(1), 87-112.
- Latchem, C. (2018). *Open and distance non-formal education in developing countries*. Springer.
- Loeckx, J. (2016). Blurring boundaries in education: Context and impact of MOOCs. *International Review of Research in Open and Distributed Learning*, 17(3), 92-121.
- Lortie, D. C. (2002). *Schoolteacher: A sociological study* (2nd Ed.). Chicago, IL: University of Chicago Press. (Original work published 1975)
- McDuffie, K.A., Mastropieri, M.A., & Scruggs, T.E. (2009). Differential effects of peer tutoring in co-taught and non-co-taught classes: Results for content learning and student-teacher interactions. *Exceptional Children*, 75(4), 493-510. doi: 10.1177/001440290907500406
- McGarr, O., O'Grady, E., & Guilfoyle, L. (2016). Exploring the theory-practice gap in initial teacher education: Moving beyond questions of relevance to issues of power and authority. *Journal of Education for Teaching*.

## CO/AUTOETHNOGRAPHY OF PRE-COLLEGIATE TEACHING EXPERIENCES

- <http://dx.doi.org/10.1080/02607476.2017.1256040>
- Mewborn, D.S., & Tyminski, A.M. (2006). Lortie's apprenticeship of observation revisited. *For the Learning of Mathematics*, 26(3), 30-32. <https://www.jstor.org/stable/40248547>
- Opfer, V.D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, 81(3), 376-407. <https://doi.org/10.3102/0034654311413609>
- Oral, S.B. (2012). John Dewey's concept of *consummatory experience* and its relevance to teacher education. *Elementary Education Online*, 11(1), 161-172.
- Oral, S.B. (2013). Exploring the ideal of teaching as consummatory experience. *Education and Culture*, 29(2), 133-158. <https://www.jstor.org/stable/10.5703/educationculture.29.2.133>
- Park, J., & Wilmes, S. (2019). A critical co/autoethnographic exploration of self: Becoming science education researchers in diverse cultural and linguistic landscapes. In J. Bazzul & C. Siry (eds.), *Critical voices in science education research: Narratives of academic journeys*. Rotterdam: Springer.
- Prinz, A., Kollmer, J., Flick, L., Renkl, A., & Eitel, A. (2021). Refuting student teachers' misconceptions about multimedia learning. *Instructional Science*. <https://doi.org/10.1007/s11251-021-09568-z>
- Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). SAGE Publications Ltd.
- Seifert, K., & Mandzuk, D. (2006). Student cohorts in teacher education: Support groups or intellectual communities. *Teachers College Record*, 108(7), 1296-1320.
- Shively, C. (2012). "Information at their hands": *Applying sociocultural theory to an analysis of the pedagogical moves of pre-service science teachers during a science lesson* [Unpublished doctoral dissertation]. The University at Buffalo, State University of New York.
- Sikes, P., & Troyna, B. (1991). True stories: A case study in the use of life history in initial teacher education. *Educational Review*, 43(1), 3-16. <https://doi.org/10.1080/0013191910430101>
- Simac, J., Marcus, R., & Harper, C. (2019). Does non-formal education have lasting effects? *Compare: A Journal of Comparative and International Education*. <https://doi.org/10.1080/03057925.2019.1669011>
- Smagorinsky, P., & Barnes, M.E. (2014). Revisiting and revising the apprenticeship of observation. *Teacher Education Quarterly*, 41(4), 29-52.
- Smith, L.K. (2005). The impact of early life history on teachers' beliefs: In-school and out-of-school experiences as learners and knowers of science. *Teachers and Teaching*, 11(1), 5-36. <https://doi.org/10.1080/1354060042000337075>
- Strom, K.J., Dailey, A., Mills, T. (2018). Nonlinear negotiations: Constructing practice as a first-year teacher. *Teacher Education Quarterly*, 45(3), 7-28. <https://www.jstor.org/stable/90023439>
- Taylor, M., & Coia, L. (2006). Revisiting feminist authority through a co/autoethnography lens. In D. Tidwell & L. Fitzgerald (Eds.), *Self-study research and issues of diversity* (pp. 51-70). Sense.
- Taylor, M., Klein, E.J., & Abrams, A. (2014). Tensions of reimagining our roles as teacher educators in a third space: Revisiting a co/autoethnography through a faculty lens. *Studying Teacher Education*, 10(1), 3-19. <https://doi.org/10.1080/17425964.2013.866549>
- The extent and impact of non-formal education in 28 developing countries*. (2008). Education Policy and Data Center.

[https://www.epdc.org/sites/default/files/documents/The\\_Extent\\_and\\_Impact\\_of\\_Non-formal\\_Education.pdf](https://www.epdc.org/sites/default/files/documents/The_Extent_and_Impact_of_Non-formal_Education.pdf)

Westrick, J. M., & Morris, G. A. (2016). Teacher education pedagogy: Disrupting the apprenticeship of observation. *Teaching Education*, 27(2), 156-172.

<https://doi.org/10.1080/10476210.2015.1059413>

What is 4-H? (n.d.). <https://4-h.org/about/what-is-4-h/>

Wilson, B.L., & Corbett, H.D. (2001). *Listening to urban kids: School reform and the teachers they want*. State University of New York Press.

Yasunaga, M. (2014). *Non-formal education as a means to meet learning needs of out-of-school children and adolescents*. UNICEF. <https://www.allinschool.org/media/1991/file/Paper-OOSCI-Non-Formal-Education-Learning-Needs-2014-en.pdf.pdf>

Yerrick, R., Parke, H., & Nugent, J. (1997). Struggling to promote deeply rooted change: The “filtering effect” of teachers’ beliefs on understanding transformational views of teaching science. *Science Education*, 81(2), 137-159. [https://doi.org/10.1002/\(SICI\)1098-237X\(199704\)81:2%3C137::AID-SCE2%3E3.0.CO;2-G](https://doi.org/10.1002/(SICI)1098-237X(199704)81:2%3C137::AID-SCE2%3E3.0.CO;2-G)

Yerrick, R.K., & Hoving, T.J. (2003). One foot on the dock and one foot on the boat: Differences among pre-service science teachers’ interpretations of field-based science methods in culturally diverse contexts. *Science Education*, 87(3), 390-418).

<https://doi.org/10.1002/sc.10057>

Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college- and university-based teacher education. *Journal of Teacher Education*, 61(1-2), 89-99. <https://doi.org/10.1177/0022487109347671>