

The Influence of Significant Life Experiences on the Teaching Practices of Early Childhood Educators in Traditional and Nature-Based Preschools

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ABSTRACT

The first purpose of this qualitative study was to explore self-reported significant life experiences of early childhood educators to determine whether experiences of traditional pre-K educators differed from those who taught in nature-based programs. The second purpose was to explore whether these experiences influenced their teaching practices. Ten traditional pre-K teachers and ten nature-based teachers were interviewed to obtain reports on whether their early experiences influenced their teaching practices. The nature-based participants were reportedly more influenced by early outdoor experiences and the traditional pre-K participants were reportedly more influenced by role models. The findings from the nature-based participants aligned with prior research on significant life experiences. That is, those who have memories of early outdoor experiences continued to exhibit concern for the environment in their adult lives emphasizing the importance of outdoor experiences for all young children.

Keywords: significant life experiences, teacher influence, teacher preparation

Many people reminisce about their childhoods with most of their stories either based on experiences outside in nature or with significant people. However, their nostalgia about outside experiences may not extend to choosing a preschool. If presented with making a preschool selection, their concerns about nature-based education overshadow these memories and a more traditional environment is often their selection for a preschool experience. At the forefront of these concerns is that there is little causal or correlational research supporting children's readiness for school following their nature-based experience. Because an emphasis on literacy and math skills is not as evident in a nature-based program, family's question whether their children will be prepared for formal schooling (Hunter et al., 2019). The benefits of play and experiential learning for young children are well-documented (Kuo, Barnes, & Jordan, 2019), but the prospect of nature-based education as an alternative to traditional preschool programming continues to be met with skepticism from many U.S. families.

When families retrieve their children from traditional preschool programs and ask what they did that day, they are likely to see a picture they painted or hear about an experience on the playground or a song that they learned or listen to their child talk about what another child ate, said, or did. Some children in preschool programs take nature walks, watch seeds germinate, and pick up worms; all memories and experiences in the very brief life of a young child. These memories and experiences influence the adults they will become and were facilitated by the teachers in their classrooms who also have had their own significant life experiences that influenced the adults they became.

The Study of Significant Life Experiences

In 1980, research on significant life experiences was identified as a "new research area in environmental education" (Tanner, 1980). His research explored the relationship between the self-reported early experiences of active conservationists and their later interests. Tanner concluded that early experiences outdoors and in the environment

were dominant influences in respondent's later lives. During the decades that followed Tanner's work, research into the impact of significant life experiences has been replicated in a variety of settings resulting in the same findings; the source of later environmental attitudes and actions are influenced by early experiences with a positive role model and in time spent outdoors (Chawla, 2006). There is a caveat to this conclusion. The focus of significant life experience (SLE) research has typically concentrated on a participant sample of individuals who were self-identified environmentalists and environmental educators (Stevenson et al., 2014) leaving a gap in SLE research that provided a comparison group (i.e., participants either without a background in environmental activism or without an extensive history in outdoor activity). Critics of SLE research question whether the assertion that those who later in life become stewards of the environment were motivated to do so by early experiences or were simply using selective recall in retelling a SLE.

What are significant life experiences? Hacking, Cushing, and Barratt (2019) described significant life experiences as "important phenomenological events considered critical in determining or influencing concerns, beliefs, and actions in later life" (pg.2). The experiences might be single momentous events or regular experiences over time. Chawla (2006) noted that the strengths of research on SLEs were that it was qualitative when most environmental education research was quantitative, allowed for participants' own explanation of incidents, and provided a glimpse into the span of lifelong learning. The weaknesses of SLE research according to Chawla (2006), lie in issues of inconsistency and reliability. For example, while the initial prompt to a participant may be the same for all participants, the follow-up questions may differ depending on the response to the first question. Some find the inability to corroborate a participant's narrative concerning.

In one study using SLEs, Altan and Lane (2018) presented the following prompt to five female teachers from Turkey during an initial interview. "Imagine that your life has been a journey from birth until today. Talk about your life experiences at home, school, or as a learner during this life journey which had an impact on or contributed to your ways of thinking" (p.241). The researchers then explored which of the life experiences the teachers would identify as 'significant' and discussed with the teachers the relationship or contribution of their narratives and their dispositions. In the final interview, the researchers questioned the teachers on how their SLEs contributed to their teaching. The researchers reported that the participating teachers identified travel as a noteworthy experience and influenced their teaching practices by enhancing their communication style with children from all cultures.

Using narrative inquiry, Williams and Chawla (2016) interviewed 18 participants who had attended nature-based environmental programs between 4 and 40 years ago when they were 5 to 15-year-old children. The purpose of the study was to identify memories that were still important to the participants. The interviewers began by asking each participant the year they participated and any specific programs they remembered. This question was followed by open-ended questions asking the participants for more details and their experiences in the program(s). All participants recalled their time in the program to include many hands-on opportunities which ultimately led to a greater awareness of the natural world as adults.

Similarly, Liddicoat and Krasny (2014) explored the autobiographic episodic memories of 54 youth who had attended a residential environmental program five years prior. Using semi-structured interviews, their findings indicated that many participants remembered scientific information they had learned during the program and continued to use what they learned to understand their local environment.

To further investigate the influence of early nature-based activities, Asah et al. (2018) asked 23 entrants to a public city park whether they had participated in nature-based activities as a child. Although the participants were not necessarily avid environmentalists, they were choosing to spend time in a natural environment (i.e., city park). If the participant responded 'yes', the individual was then asked to "describe the pathways for this participation". Their life experiences were categorized into activities of self-exploration, exploring with other individuals, or explorations as part of a school, after-school, or organizational (e.g., Scouts) activity. Park goers who responded that they had not participated in nature-based activities as children were not further interviewed.

McClintic and Petty (2015) specifically targeted their study to the outdoor play memories of early childhood educators. They interviewed 10 early-childhood educators and the center director from a traditional preschool

program located in an urban area about their childhood memories of outdoor play. Although the respondents did not provide specific autobiographical memories, their responses were consistent and concluded that the teachers believed they learned the most when allowed to explore on their own and use their imaginations.

Using a phenomenological approach, Jorgenson (2013) interviewed three primary school teachers to investigate their acceptance and utilization of a school garden. The teachers were purposefully selected because of their use of the school garden. The teachers were interviewed twice; the first time to hear their life history regarding family, education, and the outdoors, and the intent of the second interview was to obtain their perspectives on teaching. Following coding, he concluded that the teachers drew their practices around the school garden from their environmental memories, their observations of children's behavior, and their beliefs about teaching and learning.

METHODOLOGY

The purposes in this study were to explore self-reported effects of significant life experiences of teachers from both nature-based programs and from traditional preschool programs in the U.S., and to investigate whether these self-reported experiences influenced teachers' actions and practices in the classroom. For example, one might expect that teachers who frequently camped or hiked as children would have established behaviors and teaching practices different than teachers who did not. To extrapolate even further, one might expect that these same teachers would instruct differently. If these expectations are true, then there are implications for differentiating professional development.

Research Questions

The specific research questions for this study parsed out the narratives of practicing nature-based educators (NBE) and traditional preschool teachers and asked:

- What significant life experiences do early childhood educators report as having contributed to their teaching practices?
- Do reported significant life experiences differ for educators in nature-based programs and those in traditional preschool programs?

Participants

A membership organization targeting early childhood nature-based educators was approached and assisted to solicit participants. Nineteen people responded to the recruitment solicitation from the nature-based organization. Ten of the 19 potential participants were interviewed. Two of the 19 respondents were not interviewed because they were recent graduates and had not yet secured a nature-based position. The remaining seven were contacted for an interview but subsequently did not proceed due to scheduling conflicts, personal commitments, or eventually the saturation point had been reached.

A national membership organization for early childhood educators was contacted to solicit traditional pre-K participants. Fourteen potential participants responded to the recruitment solicitation from the traditional early childhood membership organization. Ten of the fourteen potential participants were interviewed. Of the four potential participants not included in these analyses, one was a director of a preschool program and not directly working with children, one was teaching in China, one was a recent graduate, and one did not proceed due to personal commitments. The resulting sample comprised ten nature-based educators and ten traditional pre-K educators. Of the ten nature-based educators; eight were White females, one was a non-White female, and one was a White male. All of the traditional pre-K educators were White females.

The acronym NBE was used for participants from the nature-based sample and TRAD for participants from the traditional pre-K sample when referring to them collectively. When an individual participant is quoted, a pseudonym is used followed by the acronym NBE or TRAD to indicate their sample.

Education

The participants were asked their highest educational level, earlier degrees (if any), and areas of study. NBE participants and TRAD participants attained similar highest degrees. One participant held an associate's degree and one participant held a doctoral degree from each sample. Two NBE participants reported bachelors' degrees and six reported masters' degrees. Four TRAD participants reported bachelors' degrees and four reported master's degrees. TRAD participants' undergraduate degrees were in either early-childhood education, child development, or special education, with one exception. That participant held an English undergraduate major, followed by a masters' degree in urban education and a doctorate in educational leadership. In comparison, four of the NBE participants' undergraduate degrees were in either early childhood education, child development, or elementary education. The remaining six NBE participants reported undergraduate studies on public relations, environmental education, fashion, French, human resources management, or architecture. Four of the six reported having transitioned to early childhood education from career paths they did not find fulfilling. Natalie (NBE) said that she was "[initially] whole hog into the corporate world" but then referred to her ten years in human resources management as "a little soul-sucking. It was a position where I was doing a lot of firing and laying off and delivering severance packages and it was just crushing. It was horrible." Naomi (NBE) described her early career in fashion as "completely superficial and not really what I wanted to do." Although the educational levels for the samples were essentially equivalent, the career paths for the TRAD participants were more linear and consistent with their educational training than that of the NBE who for six of the ten was a career path that included a career change from a four-walled office setting to the outdoors.

Design

To address the research questions, self-reports of SLEs were collected from two purposely selected voluntary membership organizations of early childhood educators. The individual educators from each organization were a convenience sample of those who responded to the solicitation and were interviewed via Zoom. Their self-reports of experiences were then categorized into themes, and the themes compared across both groups of teachers.

Data Collection

All interviews were recorded and then transcribed through the Zoom transcription service, followed by a second reading to ensure accuracy of the transcription. Each interview lasted between 20 minutes to an hour and a half. Participants were sought who were currently teaching in a pre-K program and those who had been teaching at least two years. Because pre-K programs operated differently during the pandemic, the requirement for at least two years of experience was instituted to obtain reports of SLEs from participants who could describe their programs both prior to and since the pandemic. Potential participants were scheduled for an interview and asked the following questions:

1. Tell me about your career path. How did you get to the position you hold now?
2. How long have you been employed at (name of program) and what is your role?
3. Would you describe the program at (name of program)?
4. Tell me about your educational background. What was the emphasis during your training?
5. Are there any early experiences you can remember that inspired your career choice?
6. Did this experience influence your teaching practices? If so, how?

The interview questions were inspired by the research of McClintic and Petty (2015) and Jorgensen (2013) who both began their interviews of NBE educators by soliciting information on education and employment. To be inclusive of the teachers from traditional pre-K programs, the researcher defined teaching practices generally rather than limiting it to teaching practices in the outdoors. Throughout the interviews, participants were asked open-ended questions to give them the opportunity to clarify or expand on their initial response.

Data Analyses

After interviews were transcribed and participants checked their transcripts, a first-cycle coding method that Saldaña (2014) referred to as initial coding was used. The advantage of initial coding was that it prohibited any preconceived ideas of themes.

Transcribing the interviews and verifying the content of the interview was the major focus of the first step of organizing and preparing the data for analysis. This included contacting the participants again to ask them to member check their responses.

All participants' repeated statements, phrases, or images to generate descriptions and themes were coded. The sentiment of the statement or phrase was also coded. For example, some participants reported that they were discouraged by family members in pursuing a career in education which was coded as a negative sentiment. During the final step, the themes were summarized across participants from each group to compose a narrative of what these reports represented.

A random sample of data (25%) was coded a second time by an independent second researcher who is a current elementary public-school teacher with 20 years of experience in the classroom. A reliability score of less than 80% on the sample would have led to a thorough test of all data. The inter-coder agreement for coding the responses to the teachers' early experiences was 86%, and 85% for coding the influences on teaching practices. Response bias was controlled by member checking and a comparison of a sample of the audio files with the written transcript by an independent second researcher.

FINDINGS

Before determining whether the self-reported SLEs impacted the participants' teaching practices, the participants were asked to narrate the SLEs that inspired their career choice, and then were asked whether these experiences impacted their teaching practice (Research Question 1). This section summarizes the SLEs from the two groups of educators.

Significant Life Experiences

Twenty-six words and phrases were coded under four emergent themes. Table 1 shows the frequency of coded responses and instances of response by both groups. Because participants' responses could be coded under more than sub-theme, separate columns refer to frequency of each theme and number of participants whose responses were coded under that sub-theme.

Table 1
Coding for Theme: Significant Life Experiences

Sub-Theme	TRAD	<i>n</i>	NBE	<i>n</i>
Outdoor Experiences	0	0	48	8
Role Models	12	9	11	6
Books	3	3	0	0
Nature Compassion/Connection	0	0	3	1

Under the sub-theme of outdoor experiences, eight of the ten NBE participants reported 48 significant life experiences. Three of the ten NBE participants had fond memories of family camping trips. Nikki (NBE) shared that:

We camped every summer when I was a kid! I can very easily attribute my passion for the outdoors to my summer spent on the Cape in Truro, sleeping in a tent, rain or shine, eating breakfast under a canopy.

Nessa (NBE) remembered her summers in West Virginia as a time when “we went around to different state parks and went camping. Camping with my family was definitely a formative experience. I loved it.” Nellie (NBE), on the other hand, shared many early memories of outdoor experiences like biking and picnicking but said that her family never camped. “My father had been in World War II and had been in the Philippines and just had a really bad experience I think out in the jungles, and he just would never go camping, but we would go and have picnics.”

Three of the ten NBE participants spoke of being a part of the Girl Scouts or another organized camp. Nadia (NBE) spoke of taking part in activities like “learning how to make fire and collecting sassafras for sassafras tea, collecting clay from stream banks and throwing that into pottery. We learned weaving and basket-making and whittling and panning for gold.” Nikki (NBE) was less enthused about her scouting experience “finding it very boring” but acknowledging “Scouts have come a long way since I was a kid.”

Although Nikki’s (NBE) scouting experience did not meet her expectations, she spoke of the connection she had to nature from an early age. “My mom and I joke about me remembering when I first realized that paper came from trees. I was bringing home juice boxes because I couldn’t bear to throw them away because the paper came from trees and I couldn’t just throw away this thing from a tree. I wanted to find a way to give it back to the tree and I had this guilt about using this paper.”

Under the sub-theme of outdoor experiences participants reported solitary activities such as “walking home from the bus and checking what slugs were under the rocks or whether there would be a salamander” (Nikki, NBE), and activities with other children and family members like “making haystacks and climbing anything that we could” (Natalie, NBE).

Under the sub-theme of experiences with role models, six of ten NBE participants shared experiences with role models. Nigel (NBE) shared stories of teachers who were memorable influences in his life. “Every once in a while, I would have a teacher that I kind of identified with, who I felt understood me.” Others spoke of experiences with parents and grandparents. Natalie (NBE) spoke of her science teacher dad as “the guy who always corralled whatever kids were around to go look for snakes. Now I’m terrified of snakes but I so wanted to please him and have that experience with him that I was willing to do that.”

Nine of the ten TRAD participants spoke of early experiences with role models such as family members and teachers. Tracy (TRAD) and Thea (TRAD) spoke of “loving their kindergarten teacher.” Tori (TRAD) shared about growing up with parents who were in the theater and being “able to laugh and play and be present growing up out on the streets of New York City.” Early experiences with books were reported by three TRAD participants; all three reported childhood books they still kept as treasures.

When asked whether these experiences impacted their teaching practices, all participants with one exception (a TRAD educator), emphatically stated that they did.

Differences in Teaching Practices

In this section are the findings from analyses of data in addressing the second research question, as follows: Do reported significant life experiences differ for educators in NBE programs and those in traditional pre-K programs? Table 2 shows frequency of coded responses and instances of response by both groups.

Table 2
Coding for Theme: SLE Influences on Teaching Practice

Sub-Theme	TRAD	N	NBE	n
Mirroring	2	2	22	8
Family Influence	0	0	11	6
Role Models	7	6	0	0
Intrinsic Motivation	6	4	16	5
Extrinsic Motivation	1	1	0	0
No influence	1	1	0	0

One of the sub-themes that emerged from the data was what this researcher called 'mirroring,' meaning replicating those play habits practiced as a child into their teaching practices now. Nessa (NBE) responded, "Oh yeah, absolutely. I think an important question for anybody who's working with kids outside is to think back about how you played as a child. The kids love small world play which is what I did a lot of as a child. I like edible plants so we did that this week and it's something that's super engaging to kids." Nellie (NBE) said, "I believe those experiences of just spending hours building dams on a creek were, yes, they impacted the way I teach because I get the value of that. I get that you're learning about water and you're learning about flow and you're learning about building, but the inner calm that it gives you as a human being to not be directed at everything you do."

A second sub-theme, family influence, also emerged from NBE participants' responses. Naomi (NBE) responded, "I think my whole upbringing influenced by teaching practices. We were a very 'I'm the parent, you're the child' kind of family. From that I always really wanted a respect for children to be given. I never really understood just because I was younger why my voice wouldn't matter. So, as an educator I really strive to make sure that the children are respected and that their voices are heard. I really think it's important for them to understand that they are valued as people even though they're children."

"My dad was one of those sort of a taskmaster but not. He didn't understand. How many times he said to me 'the shortest distance between two points is a straight line and you just zigzag.' When another teacher or adult or parent says something to a kid, I know exactly how that's being taken" (Nigel, NBE).

The influence of SLEs on the teaching practice of TRAD educators was not as apparent as it was with the NBE. A third sub-theme that was found was role models, especially teachers, who impacted the later teaching practices of TRAD teachers Teresa (TRAD), Tracy (TRAD), and Tammy (TRAD) spoke of remembering teachers who encouraged and inspired them.

A fourth sub-theme of intrinsic motivation emerged in data from TRAD participants. Tori (TRAD) responded, "Yes, influencing in terms of my ability to be aware and present with possibilities." Tracy (TRAD) spoke of "light-bulb moments when children learn something" and "sharing their joy." Thea (TRAD) spoke of her students as "brilliant creatures who primarily learn through play. I've witnessed it my entire life."

A fifth sub-theme, extrinsic motivation, emerged from the responses of Trisha (TRAD). Although Trisha (TRAD) talked of an experience as a child witnessing young children in a neglectful home benefitting from attending an early childhood education program, her own specific memory was that of realizing that early childhood education was an opportunity to "get a job just about anywhere."

Paradoxically, Trisha (TRAD) also responded that her "teaching practice wasn't influenced by her early experiences" which I coded as a sixth-sub-theme.

DISCUSSION

In the course of 20-minute to 90-minute interviews, there was an expectation that the significant life experiences would consist of stories of role models and family members, of travel and of books, of camping trips and spontaneous hikes. The participants' responses fulfilled that expectation and included some unexpected comments and responses. Participants addressed topics that were tangentially related to the questions that were asked. Because this discussion was not directly pertinent to the research questions, the participants comments, although informative, were not included in entirety. Some of their comments focused on compensation and on licensing. For example, many of the teachers repeated what Nessa (NBE) said, "I'm privileged enough to have a husband who is the primary earner, has benefits, and has been teaching for a long time. If I were a single parent, I couldn't afford to take this kind of job or if I were the primary breadwinner, it would be very hard."

Navigating the obstacles of obtaining program insurance, publicizing one's nature-based program without drawing too much attention from licensing and accreditation agencies, and operating within the constraints of state regulations were a challenge to the NBE teachers. A challenge that was met with innovative solutions. Naomi (NBE) contacted me after the interview to update me on her program. She indicated that she was unable to operate her nature school under any "proper regulations" and was exploring whether her program could be considered a church. Others like Nellie (NBE) operate nomadic programs with parents dropping their children off at different parks and wooded areas, pre-arranged in advance; never establishing a fixed space. Others refer to their programs as camps. Still others limited their operating hours and days of operation so as not to be considered a pre-K program. These revelations beg for additional research on licensing nature-based programs.

Differences in Career Paths

The goal with each interview was to establish an initial rapport so that participants felt comfortable responding. Starting each interview with a discussion on their career path or trajectory was a successful "icebreaker". A common response was "how long do you have?" before they would delve into their backgrounds. Overall, the responses to this question were the lengthiest but beneficial in terms of learning more about each participant. Some participants mentioned the influence (or discouragement) of their parents and other family members when talking about their career paths. Others simply experienced the serendipity of a college part-time job as the catalyst for their career. Many of the NBE participants never realized that an early childhood nature-based educator was even an employment option.

When detailing the chronology of their career paths, their educational paths always entered the discussion. An unexpected finding in this study was the difference in the educational backgrounds of the NBE and TRAD educators. The TRAD teachers had a laser-focus from their undergraduate years toward a career in education, especially early-childhood education, motivated for some by their beloved kindergarten teachers and by the family members who, for some, discouraged them from a career in teaching. The NBE teachers often took a more circuitous route to nature-based early childhood education with more than one NBE teacher stating that they didn't know that a job existed that allowed them to combine their love for the outdoors with a passion to work with young children.

Difference in SLEs

The self-reports from the teachers interviewed indicated that the SLEs from NBE and from TRAD did differ. The SLEs mentioned by the NBE tended to involve outdoor activities sometimes solitary and sometimes with other people or groups such as the Scouts. The activity tended to be the focus of the story although sometimes a significant family member was involved. The SLEs mentioned by the TRAD tended to put a role model such as a family member in the center of the experience. The experiences were not necessarily outside and oftentimes did not involve an activity but simply a memory of the family member or role model.

A striking finding was the difference in the influence of these SLEs on their teaching practices. The NBE were prone to 'mirroring' the activities they did as children, sometimes activities they shared with family members, in their teaching practices. Several of the NBE referred to themselves as not being 'big adventure' people but more 'small

world' people preferring to create small villages with twigs, grasses, and bark, and most importantly to play as they did as children. Nessa (NBE) spoke of the "terrible" presentation she did early in her career in a first-grade classroom in North Carolina before realizing that she needed to 'mirror'. Her topic was Costa Rican rainforests; she had never been to Costa Rica. Neither she nor her students had any first-hand experience with rainforests.

In comparison, the TRAD were influenced by the practices of their early teachers and to a lesser degree by the influence of books. Their motivation for teaching was frequently altruistic and just knowing they wanted to work with children.

RECOMMENDATIONS

Nessa (NBE) said, "We have this fairy tale fear of the woods and that gets into the whole other element of risk and comfort level with risk, and how good this kind of play is for kids in terms of taking risks, of coming up against their fear and moving past it." Her reference to a fairy tale fear of the woods is a metaphor for the fear that some policy makers, stakeholders, and families hold about nature-based education. This section discusses recommendations for "moving past the fear".

Teacher Preparation

Nessa (NBE) said, "My mother sees what I'm doing now and she says, 'You would have loved that as a child.' True, I would and I still do so I still get to do it." Whether the NBE teachers who were interviewed would have pursued early childhood education undergraduate degrees with an emphasis on nature-based education if such a degree had been available then is an unasked question. The findings indicate that many found themselves initially pursuing a career they did not find fulfilling unaware that nature-based education could be a career which was not true of the traditional educators whom were interviewed. A recommendation from this study is that as teacher preparation programs discuss different philosophies and foundations of education to also include nature-based education as an option; an option that is becoming increasingly more common. Keeping in mind that not all pre-K programs are the same and not all are a good fit for all children, not all pre-K models are a good fit for all prospective teachers.

CONCLUSION

The significance of this study is its potential of adding information to the discussion, and most importantly, to influence educators who are not necessarily environmental educators to embrace their evolving roles. Davis (2007) wrote that the early childhood community has been slow to embrace the challenge of instructing children in sustainability. National organizations of early childhood professionals are just now beginning to grapple with the idea of explaining the importance of environmental stewardship to young children to some extent because those instructing the young children may not have a pre-disposition to this role. In 2020, the National Association for the Education of Young Children convened a voluntary group to discuss methods of incorporating sustainability into the ECE curriculum for teachers in both NBE and traditional pre-K environments.

As Louv (2005) wrote in his national bestseller *Last Child in the Woods* raising concern about the lack of time each succeeding generation of children spends outside resulting in what he referred to as nature-deficit disorder. Despite his warnings and parents' concern about too much screen time, this researcher's observations at numerous traditional pre-K programs would indicate children's accessibility to the outdoors and to nature is still very limited. The opportunity to play learning games on the computer is a far more popular activity for children than the dress-up area and certainly far more popular than the science center which frequently exists of a few rocks, some pinecones, and a few plastic zoo animals. Alarmingly, Ernst and Tornabene (2012) findings appear to validate a concern about future early childhood educators. They surveyed 110 early childhood education students from a U.S. university. Using a series of 16 photographs, the participants were asked to identify spaces most and least conducive to meeting educational outcomes. The structured environments were frequently selected as the most conducive while the natural, open environments were viewed as least conducive. Are early childhood educators adequately preparing children for the future? And, were they prepared themselves for teaching in the 21st century?

LIMITATIONS

Whether these research findings generalize to all nature-based educators or all traditional pre-K educators cannot be answered. That is the nature of qualitative research and a self-selected group of participants. The participants were all members of national early childhood organizations which may indicate a heightened commitment and passion for the field of early childhood education. Also, not known are the regulations and requirements imposed on them by their school's administration and by families of their students that potentially might influence their preferred teaching practices. None of the participants mentioned any restrictions but it remained a limitation nonetheless.

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