

Is Pre-Kindergarten Too Much Work and Not Enough Play?

Examining instructional practices in pre-K, kindergarten, and first grade

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EXECUTIVE SUMMARY

With increasing numbers of young children participating in pre-kindergarten (pre-K) programming, and many stakeholders expressing concern about the need to help all children achieve kindergarten readiness, it is necessary to ensure that pre-K programs don't become 'all work and no play' as the popular media asserts. In this analysis of 120 classrooms in the state of Ohio, we empirically examined the academic nature of pre-K programming by comparing it to kindergarten and first-grade settings.

Using a sample of 721 pre-K, kindergarten, and first-grade students in two school districts and 120 classrooms, we conducted systematic observations of children's experiences in their classroom settings. We coded exposure to academic content in terms of (1) teachers' grouping practices, (2) teachers' use of direct instruction, and (3) teachers' provision of academic content, viewing these as key dimensions of academically oriented instruction. Findings showed that pre-K appears quite distinct from kindergarten and first grade: pre-K children experienced far less whole-class instruction, direct instruction, and academically oriented content than those in kindergarten and first-grade settings. Consequently, our work suggests that concerns about the academization of pre-kindergarten programs are unwarranted. However, future research is needed to identify how much academically oriented instruction is beneficial in pre-K programs to ensure that all children develop the cognitive and social-emotional skills characteristic of school readiness.



Background

About two-thirds of 4-year-old children in the United States participate in pre-K programs nationwide (Education at a Glance, 2019), and there is currently great interest in expanding participation to reach larger numbers of children. In Ohio, for instance, both Cincinnati and Dayton/Montgomery County offer “preschool promise” initiatives designed to expand the availability of high-quality pre-K programs. The interest in expanding pre-K access and participation is generally driven by two bodies of research: (1) studies showing that participation in quality pre-K programs can improve children’s subsequent academic achievement as well as other key outcomes (Reynolds et al., 2001, 2010), and (2) studies finding that access to pre-K programs can enhance women’s participation in the labor market (O’Connor, 1988). Although the former body of work is most commonly cited in efforts to broaden pre-K participation in the United States, the economic benefits of increased labor force participation for women, made possible by provision of pre-K, is an important reason for near-universal pre-K participation in a number of European countries (Cascio et al., 2015).

As increasing numbers of young children participate in formal pre-K programs, concerns have been raised in the popular media and by some in the research community regarding the academic rigors of these programs (e.g., see Stipek, 2006). To this end, in 2007 an NBC headline asked, “Should preschools teach all work and no play?” (Clayton, 2007), with the author asserting that “academic preschools” designed to prepare children for kindergarten are not “fun.” The perception that pre-K is becoming increasingly academic, with little time for play, is based in part on the increased academization of kindergarten: evidence suggests that today’s kindergarten teachers spend more time on literacy and math content relative to kindergarten teachers in 1998, and also provide less time for art, music, and child-selected activities (Bassok et al., 2016). The need for children to arrive to kindergarten prepared for an increasingly academic context has resulted in pre-K programs, at least purportedly, becoming more academic in nature and providing little time for children to have fun.

Scientifically, it is unclear whether pre-K is too academic for young children, and this paper is designed to examine the academic nature of pre-K programs for 4-year-old children based on an Ohio-specific sample of pre-K programs. We do this by examining three characteristics of instruction across three grades (pre-K, kindergarten, and first grade), namely teachers’ use of (1) whole-class instruction, (2) direct instruction, and (3) provision of literacy and math content. In general, whole-class instruction and use of direct instruction are often considered to be characteristics of academic instruction, as is provision of academically oriented content focused on literacy and math (Bassok et al., 2016).



Research Aims

AIM 1: To determine the extent to which pre-K programs provide academic instruction in terms of teachers' use of whole-class instruction, use of direct instruction, and provision of literacy and math content.

AIM 2: To determine the extent to which pre-K programs are comparable to kindergarten and first grade in the provision of academic instruction.



Method

PARTICIPANTS

Pre-K and elementary school classrooms were recruited from two large Ohio public school districts. The present study used data from two cohorts of 120 classrooms (46 pre-K, 46 kindergarten, 28 first grade). At enrollment, participating classrooms averaged 21 students (range = 12 to 29) with approximately 48% girls, 66% white/Caucasian, 8% Black/African American, and 15% Hispanic/Latinx. For an average classroom, 90% of the children spoke English as the primary language, 38% received free or reduced lunch, and 40% had mothers with a four-year college degree or above. Teachers were primarily female (99%), white (97%), with 2 to 35 years of teaching experience. Ninety-two percent of teachers had a bachelor's degree or above.

PROCEDURES

Throughout the second half of the school year (January to May), two classroom observations were conducted in each of the 120 classrooms. At least five calendar days passed between the two observations, and observations were scheduled for different days of the week whenever possible. During each observation, trained research staff live coded classroom activities using the Classroom Snapshot (C-SNAP), a live scoring tool designed to capture children's experiences and teachers' instructional practice in the classroom. Coders were required to achieve 80% or greater exact agreement with a master coder across three gold standard videos to be considered reliable. Approximately 10% of all observations were double coded by the assigned coder and the master coder independently to assess reliability in the field. Coders achieved approximately 94% agreement during double coding with the master coder when in the field.



In each observation, coders followed four randomly selected children in a classroom. Two 20-minute coding cycles were conducted, and each child was observed for five minutes during each cycle. Each minute was considered a coding interval consisting of 30-second observation and 30-second scoring. A total of 721 unique children were observed, and 9,570 intervals were coded.

MEASURES

Adapted from existing observational tools (Classroom Observation System; National Institute of Child Health and Human Development Early Child Care Research Network, 2005), the C-SNAP consists of 31 dimensions organized into four coding domains: Grouping, Leader, Content, and Methods. For the current study, three domains (Grouping, Content, and Methods) were examined. Grouping captures how a child is situated in a classroom activity (whole class, large group, small group, dyad, individual, or none). Content focuses on the subjects or skills that an activity intends to teach (e.g., language and literacy, math), the options of free play for pre-K and kindergarten classrooms, and classroom management by the teacher. Methods record the pedagogical methods by which the target student is learning (e.g., direct instruction, text reading, and worksheets). Dimensions within the same domain are mutually exclusive, meaning that for each coding interval, coders must select one dimension for each domain.

Results

To determine how academically oriented pre-K is, we examined children’s exposure to whole-class instruction, direct instruction, and academic context in pre-K, kindergarten, and first grade. Table 1 provides a comparison of these measures of academic instruction for the three grades studied. These data represent the percentage of time children were engaged in whole-class instruction, direct instruction, and academic content while being observed in their classrooms.

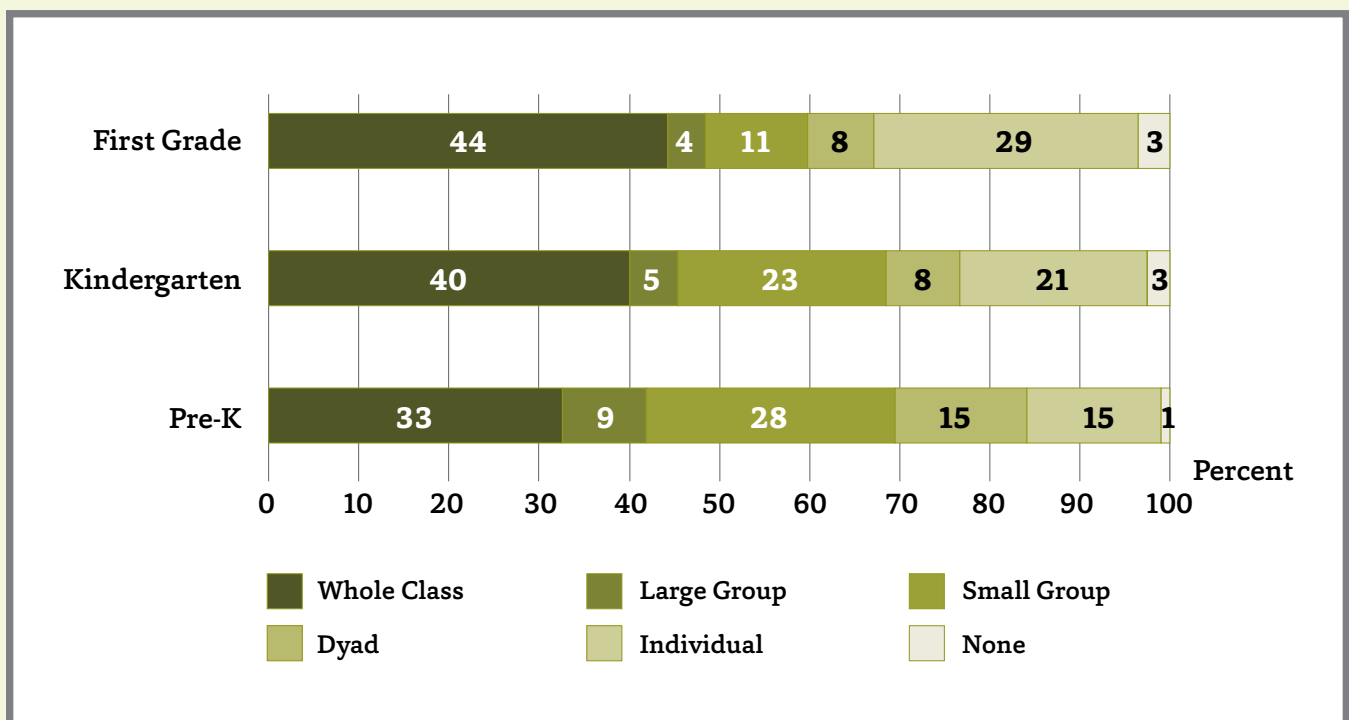
Table 1. Percentage of time children in three grades experienced academic instruction

	Pre-K	Kindergarten	First Grade
Whole-Class Instruction	33%	40%	44%
Direct Instruction	16%	25%	25%
Academic Content*	23%	59%	70%

*Instruction focused on language, literacy, math, science and technology, and/or social studies

More specifically, we examined children’s exposure to whole-group instruction across the three grades, as one index of academically oriented instruction. Figure 1 shows the percentage of time children in three grades experienced whole-class instruction versus other instructional groupings, including large group, small group, dyadic work (with one other child), and working solo (individual).

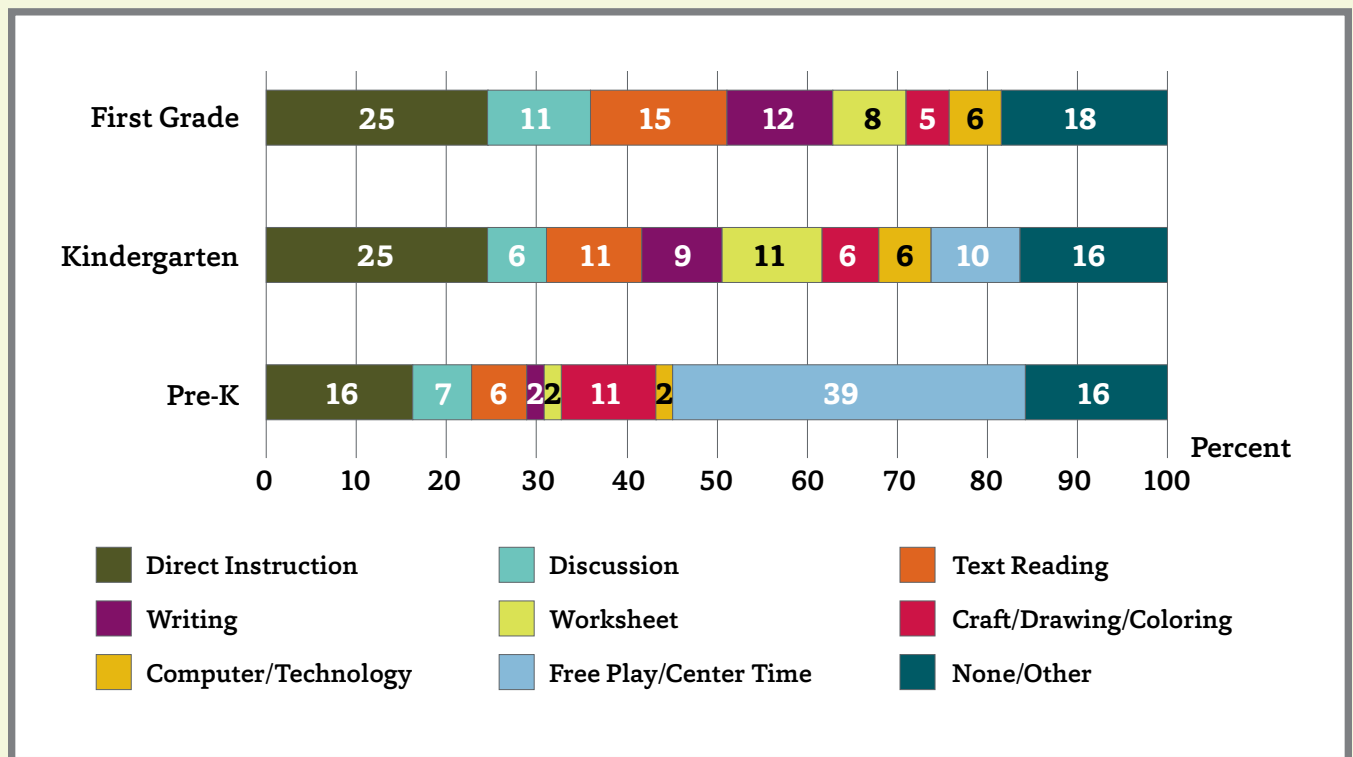
▼ **Figure 1:** Percentage of time children in each grade experienced various types of grouping



As Figure 1 shows, pre-K children tended to spend less time in whole-class instruction than kindergarteners. Specifically, whole-class instruction time increased by seven percent for kindergarteners (40% of time) and 11% for first graders (44%) as compared to pre-K children.

We also explored teaching practices, as shown in Figure 2. Our particular interest was the use of direct instruction, which is often positioned as the opposite of free play, as in direct instruction teachers engage in didactic behaviors.

▼ **Figure 2:** Percentage of time children in each grade experienced specific teaching practices



As Figure 2 shows, direct instruction was a commonly observed instructional method to deliver content across all three grades, but there was a significant increase in its use from pre-K (16%) to kindergarten (25%). Free play and crafts/drawing/coloring took up sizeable classroom time in pre-K (50%), while kindergarteners spent only 16% of the observed time on these activities. Moreover, kindergarten and first-grade classrooms tended to invest more time in text reading (15%), writing (12%) and worksheet (8%) than pre-K classrooms (10% on text reading, writing and worksheet combined).

Finally, we also explored children’s exposure to instructional content, as shown in Figure 3.

▼ **Figure 3:** Percentage of time children in each grade experienced various content

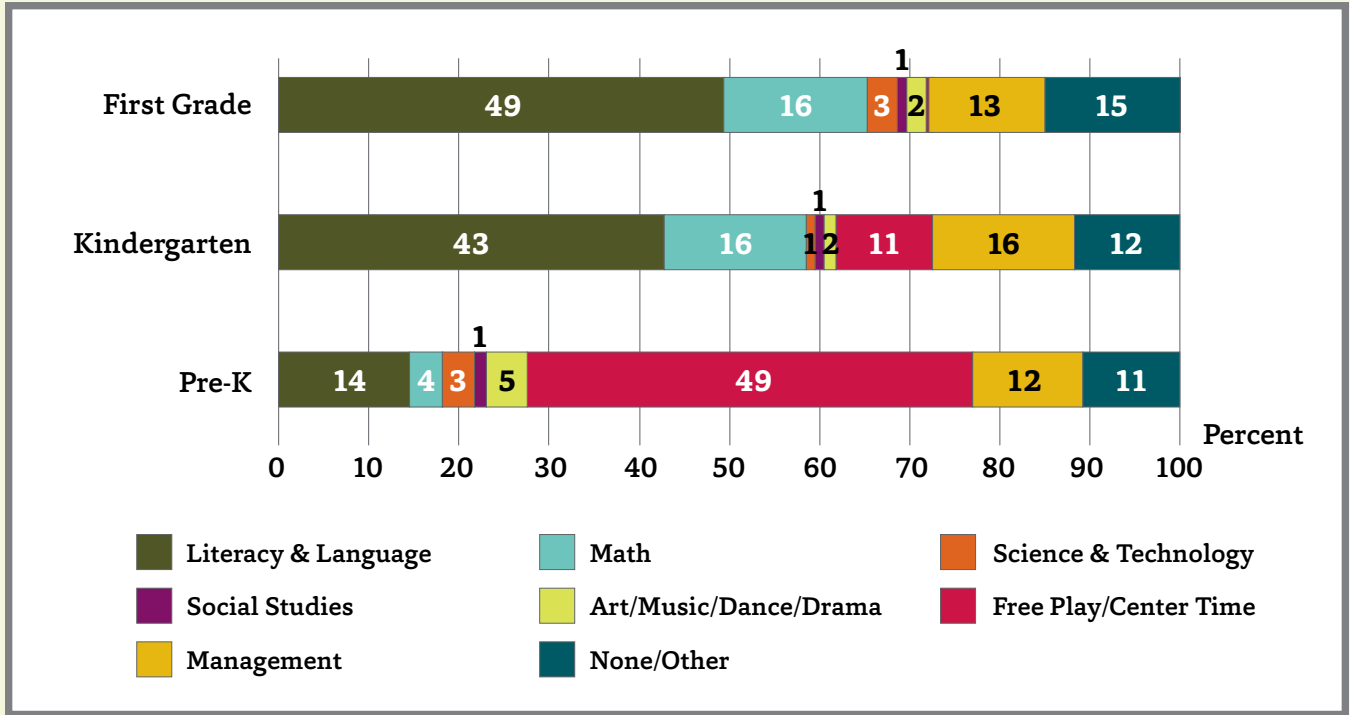


Figure 3 finds that in pre-K, nearly one-half (49%) of the observed time was spent in free play, whereas only 18% of the time children were observed targeted literacy and math contents. This pattern changed drastically in kindergarten, where 59% of the time was spent teaching literacy and math, and only 11% involved free play. In first grade, time in literacy and math instruction further increased to 65%. We do not have estimates of free play for the first graders, as this was not coded.



Discussion

Given the increasing emphasis on enhancing pre-K access for young children, there is also simultaneous concern about the increased academic focus of pre-K programs. In part, this may stem from concerns among various stakeholders in ensuring that pre-K programming helps to prepare children for kindergarten. That is, pre-K may serve an important mechanism for providing children the academic skills they need to thrive in kindergarten.

The data presented here examine children's exposure to three characteristics of academization: teachers' use of whole-class instruction as a grouping practice, teachers' use of direct instruction as an instructional pedagogy, and teachers' focus on academic instruction versus, for instance, free play and arts and music. We directly observed children in 120 classrooms and systematically coded their actual experiences. The analyses presented here suggest that pre-K programs are not highly academic in nature and, indeed, are distinguishable in key ways from kindergarten and first-grade settings. For instance, our pre-K sample of children experienced relatively little whole-class instruction (33% of the observed time), limited direct instruction (16% of the observed time), and relatively high levels of free play and center time. Such evidence should assuage concerns about pre-K programs being too academic for children and, in turn, not enough fun. On the other hand, the data presented here do not provide insights into whether these instructional practices are sufficient to enhance pre-K children's development of critical kindergarten-readiness skills. For instance, it is unclear whether the very low exposure to science and math content is sufficient to equip children with the skills needed to thrive in these academic domains in kindergarten and first grade. To this end, there is a great need to determine the ideal thresholds of academic content – in the form of whole-class instruction, direct instruction, and academic-content provision – that will situate pre-K as optimal learning contexts to enhance children's future academic achievements.

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