INDIANA INSTITUTE ON DISABILITY AND COMMUNITY
EARLY CHILDHOOD CENTER

Early Childhood School Readiness Series

Preparing Children for Kindergarten: Learning Centers

Rimm-Kaufman, Pianta, and Cox reported in 2000 that 40% of young children were simply unprepared for the demands of kindergarten classrooms. Recent interviews with kindergarten teachers and elementary school principals in Indiana suggest this statistic holds true a decade later.

Over the past four years, we investigated early education practices that promote school readiness and contribute to successful school outcomes. As a result of these studies, we have developed a series of papers identifying the skills and routines associated with successful school readiness for all children.

This paper is part of a series of briefs that examine 4 common kindergarten routines: arrival, whole class instruction, seat work, and learning centers. The briefs describe the routines and the critical skills children need to successfully engage and learn in them. They also suggest strategies early educators can use to bridge preschool practices with kindergarten expectations.

As Tegan drew a line from the picture of a lion to the letter "l," Ms. Janes, her kindergarten teacher, announced that it was time for everyone to finish up and go to the next center. Tegan printed her name on the worksheet, put the marker away, and took the paper to Ms. Janes to check her work. She then went to the next center, where children were pairing up to read books to each other. When she had problems reading one of the words, she asked her peers for help. During this hour-long period, Tegan would go to two other centers, including one at which the teacher provided a brief lesson introducing new sight words of common objects.

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Learning centers are a common kindergarten classroom routine. Children who can follow that routine and meet its expectations, like Tegan, will be better prepared to focus their energies on the kindergarten teacher's curriculum.

Kindergarten learning centers are made up of four or more physical centers or workstations in the classroom. In our observations, the predominant focus was literacy, including reading, worksheets, letter and word games, and manipulative activities (such as using puzzles and small blocks). Children are expected to move among those centers, when cued by the teacher, and complete the *teacher-planned tasks* over the entire period. Often, the kindergarten teacher is positioned at one of the centers and is leading a small group instructional activity.

The physical design of learning centers is fairly consistent. Most centers occurred at tables with children seated in small groups; however, we did observe centers that included floor activities with children either seated or standing. On average, the entire learning center routine lasts an hour, but we found learning centers ranging in length from 25-80 minutes. Given this physical design, children are expected to follow certain classroom rules, such as moving quietly among the centers and sitting and working quietly at a particular center. Children are also expected to attend to assigned tasks for periods as long as 15 minutes. Table 1 presents the critical skills that we observed most frequently during learning centers, and it provides examples from our observations.

The social design of learning centers looks at the social-communicative rules, roles, and expectations of that routine. This routine typically begins with the teacher introducing the whole class to each of the learning centers and describing the tasks or activities he or she wants the children to complete. At this time, children are expected to listen and follow the teacher's directions and often to remember what those directions were during later in the routine. Children are usually assigned to centers. They both work on their own or in small groups, and they are expected to complete the assigned tasks or activities for each center. Because the kindergarten teacher is typically instructing a small group of children at one of the centers, children are expected to know and follow the rules and routines with minimal supervision and guidance.

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Table 1 - Essential Skills for Learning Centers

Skill	Examples of Behaviors
Follows classroom routines	• Listens to the teacher introduce each center and goes to the assigned center • Independently completes the work or task assigned to the center • Puts materials away and rotates to the next center when cued by the teacher
Sees simple task to completion	• Completes a worksheet • Spells words with magnetic letters • Reads a book or reads in a pair
Follows classroom rules	• Works quietly • Sits in chairs with both feet on the floor • Puts away materials
Listens to gather information	• Listens to the teacher's descriptions and expectations for each center • After centers begin, stops work and listens to additional teacher guidance
Stays on adult-directed task	• Participates in the lesson at the teacher-directed center
Understands and follows directions	• Follows directions concerning the tasks/activities to complete • Remembers and follows directions given at the beginning of the routine • Follows directions at the end of the routine to finish work
Uses speech that is understandable	• Asks peers or the teacher for help • Talks with peers as part of a common activity or game
Accepts guidance and limits	• Stops what they are doing to do what the teacher asks (e.g., uses quiet voices, goes to an assigned center, waits patiently, cleans up)
Resolves conflict	• Independently solves problems and disagreements with other children (e.g., shares materials and space, takes turns)
Asks for help	• Raises hands or takes work to the teacher if stuck or unclear of task • Asks peers for help with work
Controls feeling of frustration	• Waits for teacher to provide assistance or check work • Completes difficult work independently

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Children who become stuck or experience any problems are expected to *work them out* to the best of their ability and ask for assistance as needed. Asking for help, a critical skill observed during learning centers, often involves asking peers for assistance. The same goes for when children experience a problem in their interactions with peers. They are expected to resolve social conflicts on their own as much as possible. When children need the teacher to check their work or require other assistance, it is important for them to wait patiently until the teacher can redirect his or her attention from the small instructional group. At the end of each center, children are expected to complete their work, have it checked by the teacher, file it away in a work folder, put away all other materials, and move to the next center or routine. This all occurs with minimal direction or guidance from the kindergarten teacher.

The instructional design of learning centers focuses on the teaching and learning strategies the kindergarten teacher employs during the specific routine. (As the companion brief on *Seat Work* shows, many learning centers reflect small-group seat work activities.) During our morning observations in 11 kindergarten classrooms that employed learning centers, the primary curriculum focus was literacy; at other times of the day, we might have found learning centers that focused on math, science, or other curricular activities.

During learning centers, kindergarten teachers employ two sets of instructional strategies. First, they use one learning center for small-group instruction. This provides one of the few opportunities the teacher has to provide more individualized and concentrated instruction to a smaller group of children. Because the kindergarten teacher may be the only adult in the classroom, he or she is multi-tasking: monitoring the other centers, providing direction and guidance as needed, providing instructional assistance to children asking for help, and checking children's work as they complete their worksheets.

The second and most predominant instructional strategy employed at learning centers is providing children with multiple opportunities to practice and apply the skills they are learning. The activities are designed to reinforce literacy skills that children are just beginning to acquire. Kindergarten teachers set up centers employing either independent seat work such as worksheets and manipulatives or peer work group activities such as reading books to each other and playing games. Once the teacher has designed the instructional tasks, children are expected to independently manage themselves and complete the tasks individually or with peers. Children who have questions or need to have their work checked can either raise their hands or ask their teacher for assistance. In some classrooms, another adult is present to provide guidance and assistance.

The tasks we observed were designed to assist children in their understanding and application of a particular skill—for example, the sound the letter 't' makes. Some tasks tapped higher levels of understanding, requiring the child to integrate newly learned skills with other skills, such as pairs of children reading a book to one another or a small group of children playing a game matching multiple letters and with objects.

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Learning Centers in Preschool

Preschool vignette

As circle time was ending, Ms. Lott, the preschool teacher, identified the centers that were available during free play. They were the housekeeping area, blocks, the art center, the reading center, a table for cutting and gluing, and a second table with puzzles. Ms. Lott noted that only five children could be at each of the two tables. As she finished circle, the children were free to go to the center of their choice. Ms. Lott and her assistant determined which centers they would cover. Each teacher observed the children's play and moved about to ask questions, provide help, or suggest more sophisticated interactions. The children were free to move about the centers, but they were redirected if they were having difficulty finding and staying at any one center for more than a few minutes. The children largely determined the activities at each center, although the materials arranged at the two tables guided their play at these centers.

While learning centers exist in both preschool and kindergarten settings, there are likely to be major differences in what they look like and in their expectations for children. In the preschool setting, learning centers may be more closely associated with free play times in which several centers or classroom areas are open and available to children. Table 2 highlights some of the similarities and differences that may exist between preschool and kindergarten settings. For example, while the physical design of the routine in both settings will include several centers for children to engage in, some of the centers traditionally offered in preschool (dramatic play, sand table/water table, art area) may not be available in kindergarten. Conversely, centers that emphasize seat work may be more prevalent in kindergarten settings.

The social design of the routine illustrates some significant differences between the two settings. While teachers in both settings may signal the beginning of the routine, preschool learning centers are much more likely to be child-directed. Teachers in preschool settings are less likely to provide explicit directions and expectations for what children are to do and accomplish at each center. In addition, children in preschool settings are more likely to choose which center they go to, how long they stay, and which center they go to next. Finally, because the preschool teacher is more likely to be moving around the classroom rather than working in a specific center, children are apt to receive greater levels of guidance and support when they run into problems or conflicts. In kindergarten, where there may be 20 or more children with one teacher, children are expected to be more self-sufficient in managing their time, staying on task, and resolving conflicts.

Preschool and kindergarten learning center routines are different in terms of the goals and instructional strategies they employ. Preschool teachers may be less intentional in what they expect children to learn from a center and instead work to capture and build on each child's interests and interactions—using questions, statements, or models to strengthen and extend the child's skills. In the preschool setting, a common belief is that children's play is an effective instructional strategy. Kindergarten teachers engage in more intentional teaching; they have

specific goals in mind and design them to focus the child's engagement and bring about the desired goals.

Strategies for Bridging Preschool and Kindergarten

Table 2 suggests some strategies that preschool teachers can carry out to help them bridge differences between their programs and the kindergarten classroom. The intention is not to change preschool programs into kindergarten classrooms but to gradually introduce and expose children to the physical, social, and instructional demands they will experience in kindergarten. For example, one of the biggest differences exists in the social design of the routine. Learning centers in kindergarten are primarily teacher-designed, with clear expectations for what children are to do. Recommended strategies to prepare children for learning centers in kindergarten include gradually introducing or increasing the level of directions and expectations the preschool teacher has for certain centers.

Following are three important overall strategies to close the gulf that often exists between preschool and kindergarten learning centers:

1. **Introduce learning centers with clear teacher expectations and tasks to complete.** Gradually introduce and expand the number of centers in which the teacher has clear expectations and children are asked to "complete the work." The tasks do not need to be worksheets that emphasize advanced academic subject matter; they could include simple art projects, building projects, or social games. The goal is to introduce small amounts of teacher direction.
2. **Increase the demands placed on children at the beginning of the routine.** When introducing the learning center routine, the kindergarten teacher may provide a fair amount of information and direction concerning his or her expectations. Teachers can begin to prepare children for this change by gradually introducing and increasing the amount of information and instructions they provide. This will include an increase in teacher expectations that children will follow and remember directions regarding center assignments and tasks to complete.
3. **Implement learning center activities that require children to work and solve problems independently.** In kindergartens, children need to be more self-sufficient in managing their learning and social problem-solving. Teachers can prepare activities that have clear tasks to accomplish with minimal ongoing assistance. If the activity involves other children, teachers can place responsibility on the children to solve problems that might arise when working with others.

Summary and Implications

Learning centers are a common instructional routine in both preschool and kindergarten classrooms. They provide the opportunity for children to work independently on several tasks.

They recognize that young children need to be active, move around the classroom, engage in different activities, and work with different materials. Yet they also address the increasing curricular demands faced by all teachers in our public schools. The kindergarten teacher adapts and uses learning centers as a powerful instructional routine by designing specific activities that reinforce the child's understanding and application of emerging curricular skills. Learning centers also provide teachers the opportunity to focus their attention on small groups of children while the rest of the class is actively engaged and learning.

Recognizing the instructional role that learning centers play in kindergarten, preschool teachers can gradually introduce those design elements that may be missing from their own learning centers. They can maintain many of the qualities that define their learning centers while introducing children to the increased structure and expectations that will confront them when they do enter kindergarten. By bridging those differences, preschool teachers prepare children for their next big step into school.

Pianta, Cox, & Snow in 2007 and Pianta & Cox in 1999 identified key elements that bring about successful transitions into kindergarten. One element is the need to establish shared expectations about children among preschool teachers, kindergarten teachers, and families. When expectations for children's entry into the physical, social, and instructional demands of kindergarten are shared, the likelihood is greater they will achieve success in that future setting.

Table 2- Strategies for Bridging Differences in Learning Centers

Routines between Preschool and Kindergarten Settings

	Preschool Setting	**Bridging Strategies**	**Kindergarten Setting**
Physical Design	Learning centers include major classroom areas (e.g., dramatic play, blocks, art, tables). Materials typically include most all classroom materials (dramatic play, blocks, manipulatives, art, books). Children move among centers at will.	Introduce and expand the number of seat work activities that include literacy and writing. Increase the amount of time children are expected to stay in one center.	Teachers plan four to five centers. The majority of learning centers are at tables and involve seat work, but they can include floor work. Materials typically include writing/worksheets, books, matching games, and literacy-based manipulatives. Children move among centers as directed.

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	Preschool Setting	Bridging Strategies	Kindergarten Setting
Social Design	Centers are comprised of child-directed activities with few expectations concerning completed tasks and products. Children choose centers. Setting provides a diverse array of independent and social dramatic play activities. Teachers intervene and help children resolve conflicts with one another.	Introduce and expand the number of centers that have clear, teacher-designed expectations and tasks. Introduce teacher cues to complete work at one center and find another center in which to work. Gradually reduce guidance provided to children to work independently, stay on adult-directed tasks, and resolve their own conflicts.	Teachers design and direct activities through which children are expected to manage their time and complete assigned work independently. Children are assigned to centers, and teachers cue them when to switch. Centers combine independent seat work and collaborative games and tasks in which peers work together. Children resolve conflicts with peers.
Instructional Design	Teachers provide less direction concerning center expectations, but they may suggest and model choices. Children are expected to choose centers and engage appropriately. Teachers provide minimal direct instruction but may ask questions, make suggestions, or model more sophisticated engagement. Teachers monitor centers and provide guidance as needed, respond to requests for assistance, and acknowledge completed work.	Introduce learning centers by discussing and negotiating expectations concerning work and finished products. Introduce tasks that require children to work independently and result in completed products they turn in; gradually increase the complexity of the tasks and the amount of time children need to work on them. Introduce teacher-lead centers that include more direct instruction.	Teachers provide directions concerning work expectations and completed products. Children are expected to complete work independently. They may ask teachers or peers for assistance. One center is a teacher-led small group instructional activity. Teachers monitor centers, provide guidance as needed, responds to requests for assistance, and check completed work.

Summary of our Research

Over the past four years, we have been investigating early education practices that promote school readiness and contribute to successful school outcomes for all young children. Our work

has focused on determining what early childhood programs can do to effectively prepare children for the social, physical, communicative, and instructional rigors of kindergarten. In October 2006, we wrote a series of briefs in which we identified skills that the research literature suggests are important for children to learn as they enter kindergarten.

Building on our previous work, we conducted a series of small studies (2007-2010) to validate the skills that kindergarten teachers identified as important and *essential* for children to have when they enter kindergarten. The results indicated 74 skills that kindergarten teachers ranked as important, of which 22 skills were identified as critical. Table 3 presents those 22 skills in alphabetical order.

Table 1 - Essential School Readiness Skills

Their Frequency of Occurrence Across Kindergarten Routines (Percentage of observed routines)

Skill	Arrival *N*=14	Learning Centers *N*=12	Seat Work *N*=16	Whole Class Instruction *N*=33	Total *N*=75
Accepts guidance and limits	64%	83%	56%	64%	65%
Asks for help	43%	67%	50%	24%	40%
Communicates needs and wants	79%	67%	44%	39%	52%
Controls feelings of frustration	43%	67%	38%	48%	48%
Copies or writes own name	43%	58%	63%	18%	39%
Disposes of bodily wastes	7%	17%	19%	21%	17%
Follows basic health and safety rules	50%	33%	50%	42%	44%
Follows classroom routines	100%	100%	94%	94%	96%
Follows different rules/routines	14%	25%	31%	30%	27%
Follows simple classroom rules	93%	92%	100%	85%	91%
Gives name, age, and gender	14%	17%	13%	9%	12%
Listens to gather information	64%	92%	88%	91%	85%
Recognizes five colors	29%	8%	25%	27%	24%
Recognizes own name in isolated print	21%	17%	13%	6%	12%
Resolves conflicts	21%	75%	25%	24%	32%
Sees a simple task to completion	86%	100%	81%	58%	75%
Stays on adult-directed task 10 or more minutes	29%	92%	81%	82%	73%
Takes care of toileting needs	36%	67%	6%	55%	43%
Understands and follows directions	86%	92%	81%	85%	85%

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Skill	Arrival *N*=14	Learning Centers *N*=12	Seat Work *N*=16	Whole Class Instruction *N*=33	Total *N*=75
Uses speech that is understandable	100%	92%	75%	85%	87%
Washes hands and face	7%	42%	19%	12%	17%
Watches/listens to stories	14%	17%	13%	42%	27%

We also began to examine the importance of these skills in the context of children's successful engagement in typical kindergarten routines. In our most recent study, we observed children in kindergartens to determine whether they demonstrated these critical skills as they navigated routines such as arrival, whole class instruction, seat work, and learning centers. This latest work further validated the importance of the 22 observed skills and highlighted the significance of looking at common kindergarten classroom routines as important units of analyses. Table 3 presents data summarizing these observations. It presents the percentage of observations each skill was observed during the four different kindergarten routines mentioned. For example, the first skill in Table 3, *Accepts guidance and limits*, was occurred in 64% of all observed *arrival* routines (N=14). That same skill was observed to occur in 65% of all instances of the four kindergarten routines we studied (N=75). *Follows classroom routines* was the most frequently observed skills, occurring in 96% of all observed routines.

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Preparing Children for Kindergarten: Learning Centers

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Essential Skills for Successful School Readiness Research Project

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