

Guide and Professional Development Ideas for the Video: *Using Center Activities to Foster Social Foundations and Inquiry- Based Learning*



Background

Using Center Activities to Foster Social Foundations and Inquiry-Based Learning is one of four videos that were created as a companion to the book, *Supporting Every Young Learner: Maryland's Guide to Early Childhood Pedagogy Birth to Age 8*, a publication from the Maryland State Department of Education. The titles of the other three videos are *Student Engagement*, *Teacher Feedback*, and *Questioning and Student Discussion*.

The 16 minute video contains footage of teachers interacting with students in five kindergarten classes and one prekindergarten class. Teacher comments are included with the vignettes to provide an insight into their thinking and teaching practices.

Summary

Video clips provide a variety of strategies that are used to enhance learning during classroom center activities, including the importance of teachers being intentional in their interactions with students, the design of the physical environment, and the development of relationships with students. Center activities and teacher interactions are instrumental in the development and practice of social foundations, a domain of learning that includes social-emotional, approaches to learning, and executive functioning skills. The social foundations domain is included in the Maryland Early Learning Standards. The eight social foundation standards are:

- Recognize and identify emotions of self and others;
- Manage the expression of feelings, thoughts, impulses, and behaviors;
- Demonstrate cooperative behavior in interactions with others;
- Demonstrate ability to resolve conflicts with others;
- Demonstrate the ability to solve problems;
- Demonstrate the ability to persist with a task;
- Seek and gather information to plan for projects and activities; and
- Demonstrate the ability to retain and apply information.

Teachers raise the level of learning with purposeful observation, questioning, feedback, and encouragement to help students reflect upon their work. The video shares practices that encourage a balance between teacher-directed and student-directed learning.

For the purposes of this paper, the term “centers” will be defined as developmental centers that are self directed, encourage exploration and promote play-based learning. Dramatic play, blocks, nature and art are examples of centers commonly found in classrooms. Activities that have a more structured approach and academic focus will be defined as “workstations.” Workstations are often designed to be a review or application of a previously taught skill. Mathematics, literacy and science concepts and skills are often a focus of workstations. Both workstations and centers serve an important role in early childhood learning.

Relationship of STEM Standards of Practice, Standards of Mathematical Practice, and Social Foundations Domain

The STEM Standards of Practice and the Standards of Mathematical Practice support many of the skills and behaviors found in the social foundations domain of learning. A chart (attached) provides a comparison of the three sets of practices.

The social foundations domain of learning includes executive functioning, approaches to learning, and social emotional skills, such as problem solving, persistence, cooperating with others and empathy. Children are able to practice and develop these skills and behaviors during center activities and play. The social foundations domain is also assessed on the Kindergarten Readiness Assessment and the Early Learning Assessment.

The projects shown in this video (e.g., bridge, zoo, and dinner party) have some of the same elements found in STEM activities and project-based learning. However, it is important to distinguish differences in the structure and purpose of developmental centers versus STEM activities and project-based learning. Centers are more student-directed and the teacher’s role is to ensure students have opportunities for exploration while fostering or guiding students’ curiosity.

There are many opportunities not seen in the video to increase the complexity of the activity, such as asking students to reconstruct a bridge to allow a five inch tall boat to go under it or to create a menu for the dinner party. Literacy skills could include students writing about their project (e.g., zoo) or displaying their writing and drawing as part of a class book for the library or block center. Math skills such as counting (e.g., number of dishes and silverware) and measuring (e.g., length of bridge) can easily be included as follow-up activities.

Audience

Kindergarten, First and Second Grade Teachers: purpose to support effective instructional practices, to generate ideas for being intentional in teacher-student interactions, and for creating robust center activities that raise the complexity of student learning.

Administrators and Supporting Staff: gain a better understanding of center activities and play, the importance of teachers being intentional in their interactions with students, and creating center activities that raise the complexity of learning.

Prekindergarten and Child Care Teachers: view it through the lens of where their children are developmentally and reflect on what practices are relevant for their age group, including center activities and teacher-student interactions that help children prior to attending kindergarten.

Narration Found in the Video: Using Center Activities to Foster Social Foundations and Inquiry-Based Learning

The Maryland State Department of Education Division of Early Childhood Development has published *Supporting Every Young Learner: Maryland's Guide to Early Childhood Pedagogy, Birth to Age 8*, commonly referred to as the *Pedagogy Guide*. (Subtitle on screen: The *Pedagogy Guide* can be accessed by going to <http://earlychildhood.marylandpublicschools.org>). The Maryland Early Learning Standards are found in the appendix of the *Pedagogy Guide*. We hope you find this video to be a useful tool as you work with Maryland's children.

Social foundations include the skills necessary to regulate one's own behavior and emotions, develop health relationships with adults and other children, and create a sense of positive personal identity. Center activities provide an opportunity for children to practice and develop these social emotional and executive functioning skills and behaviors. Centers promote inquiry-based learning, curiosity, and creativity. The following standards are developed through such activities:

- Recognize and identify emotions of self and others;
- Demonstrate cooperative behavior in interactions with others;
- Manage the expression of feelings, thoughts, impulses, and behaviors;
- Demonstrate the ability to solve problems;
- Demonstrate the ability to persist with a task;
- Seek and gather information to plan for projects and activities; and
- Demonstrate the ability to retain and apply information.

In this video we will observe kindergarten and prekindergarten classes. Two factors are conducive to achieving academic success. First, teachers are deliberate in designing an environment of exploration and creativity. Second, they are intentional in their interactions with students - providing feedback, questioning and discussion, and carefully observing children as they interact with the environment and their peers.

In the next several video clips you will see how teachers have raised the level and complexity of students' play. Students are initially asked to set a purpose for what they plan to do at a center

and then make a drawing of their project. The following day they discuss their project and revise their plan before revisiting the center to complete their new project. A follow-up discussion involves comparing the two projects. The *Pedagogy Guide* has information about the research work of Vygotsky, Bodrova, and Leone, that illustrates the importance of mature play and the teacher's role in being intentional to increase student learning.

This video highlights the importance of well-designed center activities to foster social foundation skills and inquiry-based learning in early childhood education. Observation and purposeful teacher-student interactions, including effective questioning and feedback, encourage reflection and a path toward improved learning. The importance of play is instrumental in helping students to negotiate and share in a cooperative environment. Additional information can be found in *Supporting Every Young Learner: Maryland's Guide to Early Childhood Pedagogy Birth to Age 8*. Each chapter contains a list of authors, research studies, and links to other important resources.

Professional Development Activities for Using Center Activities to Foster Social Foundations and Inquiry-Based Learning Video

Suggested Activity #1 (audience: prekindergarten – grade 2 teachers)

1. Opening questions for discussion
 - What are the different types of centers?
 - What are the purposes of these centers?
 - What is the role of the teacher with center activities?
2. View the video (16 minutes) – Use closed captions (CC) to view dialogue
 - Guiding questions: What is the role of the teacher? Students? How is the teacher being intentional in her actions?
3. Station activity
 - Create three posters ahead of time. Each of the three posters will have one of the following headings: Before, During, or After. Under each heading, have the following two subheadings: Teacher Role and Student Role.
 - Place the teachers into three groups. One group for each poster station.
 - Each group should have a different colored marker to take to each rotation.
4. Presenter questions for the station activity: Ask teachers to reflect upon and consider what they saw in the video as well as their own classroom practice for each poster station related to what takes place before, during, and after centers. Ask the following three questions prior to teachers recording their responses on the posters.
 - *What should happen **before** going to centers so that students are successful?*
Teacher Role possible responses: determine a purpose, consider current units of study, establish routines and expectations, prepare materials, model expectations, select student groups, etc.
Student Role possible responses: think of ideas for a project or center

- *What may happen **during** centers? (i.e., teacher/student interactions)*
Teacher Role possible responses: act as a facilitator (may not be present the entire time), look for evidence of learning, interaction, language usage, demonstration of social foundation skills
Student Role possible responses: design a plan, build or create, interact with peers, demonstrate skills and concepts (social foundations including executive functioning, language, and math)
 - *What may happen **after** going to centers?*
Teacher Role possible responses: guide students in reflection and in determining next steps for improvement and extensions, provide time to share, display students' plans in the centers for others to refer to in their plans
Student Role possible responses: reflect, make improvements and extensions to project (i.e., writing journal, use math skills to measure, sort, or count), collaborate, present their project to the class, and answer questions from students
5. Return to the group's original chart, review and share what was written on each chart.
- Questions for reflection (return to tables, reflect, and discuss):
 - What are the students gaining while in these centers?
 - What did you see that made the centers purposeful?
 - Discuss the quantity and quality of teacher interactions with students.
 - Discuss what teachers could add to the centers to increase opportunities for literacy and math skills (e.g., labeling, writing and drawing materials, graph paper, different size blocks or Legos, and books about the project).
6. Distribute the Project Guide* and explain that this is one example of a model that could be used. Allow teachers time to read and discuss, then have follow-up.
- Discuss a timeline that includes the establishment of routines and time for student exploration (i.e., when students are developmentally ready).
 - How can you make this work in your classroom? For example, the zoo and bridge activities shown in the video were completed over three days (teacher spent 15 minutes each day). Refer to the Project Guide (attached) for specific steps.
 - Brainstorm other activities that could be done at the different centers.
 - Teachers create a list of their developmental centers and come up with project ideas that could be done at each center.
 - Encourage teachers to think of centers and specific projects that are an outgrowth of a current unit of study. (e.g., animal unit – zoo project with a focus on habitats or animal classifications)
- Note: The book *Choice Time* by Renee Dinnerstein is an excellent resource for developing and implementing inquiry and play-based centers.

*Students may not be developmentally ready for teachers to use the Project Guide until center routines have been established and time has been allotted for students to explore the developmental centers.

Suggested Activity #2 (audience: kindergarten – grade 2 teachers and PK/preschool*)

1. Opening discussion
 - Discuss briefly the eight bulleted social foundations skills and behaviors (can be found in the summary section or distribute the attached description of the social foundations behaviors and skills).
2. Station activity with four posters (chart paper)
 - Divide the eight social foundations skills and behaviors so that two are listed on each poster. Display each poster on a separate wall.
 - Divide participants into four groups, each having a different colored marker that they bring to each rotation to record responses.
 - Rotate the groups every five to ten minutes. Another alternative is to rotate the sheets of chart paper among the tables.
 - Teachers can check off ideas that resonate with them from what a previous group shared on the posters.
3. Use the guiding question: What kind of activities, behaviors, and interactions would you observe at classroom centers that promote the development of social foundations?
4. Return as a whole group and have a representative highlight the responses on each chart paper.
5. Set purpose for viewing the videotape: Observe the teacher and student interactions and the activities as they relate to the social foundations skills and behaviors. Afterwards, we will compare what was observed in the video with what was written under the social foundations skills and behaviors on the posters.
6. View the video (16 minutes) – Use closed captions (CC) to view dialogue
7. Follow-up discussion (refer to #5) with additional questions (can also be done in a second viewing of video).
 - How did the teachers foster student oral language and communication?
 - How were the teachers able to raise the complexity of student play?
 - What support did teachers give to students to help them be successful?
 - How were the needs of diverse students planned for and met in the centers?
 - Were there any particular teacher-student interactions you found interesting?
 - The bridge, zoo, and dinner party projects took place over a two-three day period. How could you extend the activity to include additional academic skills?
 - How did the teachers incorporate technology in the lessons?
 - How did teachers engage other students in the bridge, zoo, and dinner projects?
 - Discuss what teachers could add to the centers to increase opportunities for literacy and math skills (e.g., labeling, writing and drawing materials, graph paper, different size blocks or Legos, recipes and books about the project).
 - What ideas have you taken away from your discussion and watching the video?

Note: The book *Choice Time* by Renee Dinnerstein is an excellent resource for developing and implementing inquiry and play-based centers.

Suggested Activity #3 (audience: PK and preschool teachers)

1. Opening question for discussion: Think about your classroom. What opportunities do centers provide for students?
 - Write and post ideas with sticky notes independently within a small group
 - Share some of the ideas on the sticky notes with the larger group
 - Share a broad definition of different centers: “developmental/application centers” versus “content-based” centers or workstations (have a group discussion on a working definition – read and refer to the summary section)
 - Have participants then sort their ideas onto a Venn diagram (chart paper)
2. Discuss the following in preparation for viewing the video.
 - Students having time for self-directed exploration of materials!
 - What student behaviors and skills are needed at centers? Routines?
 - Share the Developmental/Application Centers and Content Workstations organizer (attached) and briefly discuss the questions.
3. Guiding question for the video: Use the organizer (attached) to complete the first column. Explain that the video is primarily focused on developmental centers, but participants can also collaborate to complete the second column (workstations).
4. View the video (16 minutes) – Use closed captions (CC) to view dialogue
5. Share and discuss information from the organizer.
 - Share and complete any needed sections of the organizer.
 - What needs to happen for centers and workstations to be successful?
 - How does the teacher’s role and student’s role change during the year?
6. Share the social foundations domain that identifies eight skills and behaviors (attached).
 - Discuss examples in the video where there was evidence of these skills.
 - How were the needs of diverse students planned for and met in the centers?
 - Discuss how to facilitate social foundations at centers in your classroom.
7. Discuss a timeline for the year that would show a progression of what the PreK teacher would need to do for students to be successful at centers and workstations (attached).
 - Talk at your individual table and then share with the group
 - Share the quarterly progression and have teachers elaborate on each quarter.
 - Ask participants to complete the chart (attached) to reach each quarter goal.
 - Brainstorm possible topics/units and think of prompts with real world questions (e.g., in building a ramp discuss how it can be used by a person in a wheelchair).
 - Conclude by sharing the Developmental Center Project Guide* (attached).

Note: The book *Choice Time* by Renee Dinnerstein is an excellent resource on centers. .

Quarter 1	Quarter 2	Quarter 3	Quarter 4
-explore - establish routines	-setting a purpose (oral plan and reflect) -extending play/ encouraging creativity	-Oral plan with teacher dictation or shared writing/drawing (teacher draws and labels a plan) -Reflect on plan	-scaffolding independent plan making and reflection

*PK/preschool children may not be developmentally ready for parts of the Project Guide.

Suggested Activity #4 (audience: administrators, directors, and resource staff)

1. Opening questions for discussion (small or large group)
 - What are the different types of centers?
 - What are the purposes of these centers?
 - What is the role of the teacher with center activities?
2. Provide background information on two types of centers: developmental centers and workstations
 - Developmental centers are self directed, encourage exploration, and are play-based learning. Examples include dramatic play, blocks, and nature and art centers.
 - Workstations are more structured with an academic content focus that is often designed as a review or application of a previously taught skill. Literacy, mathematics, and science are popular content work stations.
 - Both centers and work stations serve an important role in student learning.
3. Share the social foundations as an important domain for learning in early childhood
 - Distribute the handout (attached): the comparison chart of the Social Foundations domain, the STEM Standards of Practice and the Standards for Mathematical Practice.
 - Discuss the handout. What similarities are there?
 - Emphasize that the social foundations skills and behaviors are practiced and developed at developmental centers that are more student-directed.
4. Preparation for video
 - Explain that most of the video will focus on developmental centers.
 - Guiding questions: What is the role of the teacher in the video? What social foundation skills and behaviors are demonstrated in the video?
5. View the video (16 minutes) – Use closed captions (CC) to view dialogue
6. Follow-up discussion (refer to guiding questions above) with additional questions
 - How were the teachers able to raise the complexity of student play?
 - How were the needs of diverse students planned for and met in the centers?
7. Implications for teachers
 - Would it be beneficial for your teachers to view this video?
 - Share the Project Guide (attached) as one method to raise the complexity of student play after center routines had been established and kindergartners had spent time on exploration and were now developmentally ready. Prekindergarten students may not be developmentally ready for the guide.
 - The book *Choice Time* by Renee Dinnerstein is an excellent resource on centers.

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Description of Social Foundations Domain

Domain	Strand	Standard (yellow) Essential Skill and Knowledge	Learning Progression	
Social Foundations (SF)	Social Emotional	Recognize and identify emotions of self and others.	Awareness and Expression of Emotion	
		Recognize and identify own emotions and the emotions of others.		
		Express, understand, and respond to feelings (emotions) of self and others.		
		Express concern for the needs of others and people in distress.		
		Look to adults for emotional support and guidance.		Relationships with Adults
		Separate from familiar adults in a familiar setting with minimal distress.		
		Seek security and support from familiar adults in anticipation of challenging situations.		
		Request and accept guidance from familiar adults.		
		Demonstrate ability to resolve conflict with others.		Conflict Resolution
	Seek adult help when solving interpersonal conflicts.			
	With modeling and support, negotiate to resolve social conflicts with peers.			
	Approaches to Learning / Executive Functioning	Manage the expression of feelings, thoughts, impulses, and behaviors.	Self Control	
		Refrain from demonstrating disruptive or defiant behaviors.		
		Demonstrate appropriate use of own materials or belongings and those of others.		
		Demonstrate the ability to delay gratification for short periods of time.	Persistence	
		Demonstrate the ability to persist with a task.		
		Carry out tasks, activities, projects, or transitions, even when frustrated or challenged, with minimal distress.		
		Focus on an activity with deliberate concentration despite distractions and/or temptations.	Working Memory	
		Demonstrate the ability to retain and apply information.		
		Follow routines and multi-step directions.		
		Remember and use information for a variety of purposes, with modeling and support.	Initiative	
		Use prior knowledge and information to assess, inform, and plan for future actions and learning.		
		Seek and gather new information to plan for projects and activities.		
		Express a desire to learn by asking questions and seeking new information.		
Demonstrate independence in learning by planning and initiating projects.				
Seek new and varied experiences and challenges (take risks).				
Demonstrate self-direction while participating in a range of activities and routines.	Cooperation with Peers			
Demonstrate cooperative behavior in interactions with others.				
Play or work with others cooperatively.				
Interact with peers in complex pretend play, including planning, coordination of roles, and cooperation.				
Demonstrate socially competent behavior with peers.				
Share materials and equipment with other children, with adult modeling and support.				

Developmental Center Project Guide

These projects can be spread out over approximately 3 days for 10-15 minutes each day. Consider the language levels, behavior, and background knowledge when selecting students for the project. We recommend choosing 2-3 students when selecting your groups. This project guide also follows the *Engineering in Elementary Model* (National Science for Technological Literacy) with the key components identified in red font (**Ask, Imagine, Plan, Create, and Improve**).

Day 1: Introduction – Ask, Imagine, Create, and Plan

1. Prompt (**Ask**)
 - Share with students that they are being given a mission to design and create something at _____ (select one of the centers in your class - e.g., dramatic play, construction zone, art). If students are undecided on what to design, provide examples of what they can design. If there is a specific concept being taught, teachers may decide the type of project.
2. Discuss (**Imagine**)
 - Have students Turn & Talk to discuss their ideas for their design.
3. Draw 1st plan
 - Remind students that they need to work together to create one plan.
 - Provide students with one sheet of blank paper and 2 different colored markers.
 - Allow students time to work on their design with minimal teacher guidance.
4. Build (**Create**)
 - Have the students take their plan with them to their center and remind them to refer to it as they build/create.
 - This is a great opportunity to observe the students' oral language and thought process.
**Teacher Note: Consider having a new prompt in mind to help facilitate a change in their second plan for Day 2 (throw them a curve ball to see how they respond to the problem).*
5. Take picture
 - We recommend using an iPad to take the picture so you can refer to it with students on day 2.
 - You could also print out the picture.

Day 2: Revise Plan (**Improve**)

1. Observe picture
 - Allow students time to observe their plan and the photograph of their design.
2. Discuss (**Ask**)
 - Ask students to compare similarities and differences between the plan and photo of what they had done on day 1.

3. Prompt and change (**Imagine**)
 - Refer to Teacher Note about facilitating a change in their plan.
4. Redraw plan (**Plan**)
 - Allow students time to turn and talk about redesigning their plan. During this time, the teacher can drop in to offer support, but should provide minimal assistance.

Day 3: Redesign

1. Discuss new plan (different)
 - Allow students time to review what they did the previous day.
2. Rebuild (**Create**)
 - Have the students take their new plan with them to their center and remind them to refer to it as they build/create.
 - This is also a great opportunity to observe the students' oral language and thought process.
3. Take picture
 - Consider printing the picture so that students can use it in their reflection and presentation.

Wrap-up: Reflect

1. Compare first and last pictures and plans
 - Lay out the two plans and pictures on the table for students to observe.
2. Discuss
 - Encourage the students to discuss the changes they made and how their second plan/design improved.
3. Present
 - Have the students present this process - i.e.: the steps that they took to make their final product.
 - Allow the class to ask questions.
 - Tell the class that you are going to place the students' plans and photographs into the center so that they can refer to them while playing at that center.

Project Ideas:

- Construction Zone – Bridge, zoo, building, or spaceship
- Dramatic Play – Dinner party, restaurant, doctor's office, or popular fairy tale
- Art- Paint a map of the school, create a boat, or any project connected to class studies

Planning Sheet for Prekindergarten Teachers

Record what steps you would take each quarter of the year to help your students become independent learners. Kindergarten students will be more developmentally ready so their timeline may be more advanced.

Quarter 1 -explore - establish routines	Quarter 2 -setting a purpose (oral plan and reflect) -extending play/ encouraging creativity	Quarter 3 -oral plan with teacher dictation or shared writing/drawing (teacher draws and labels a plan) -Reflect on plan	Quarter 4 -scaffolding independence in making plan and reflection

Developmental/Application Centers & Content-Based Workstations in Prekindergarten

	Developmental/Application Centers	Content-Based Workstations
What opportunities are provided to students?		
What is the teacher's role?		
What are students doing during this time of the day?		

Social Foundations Domain, STEM Standards of Practice & Standards for Mathematical Practice

Social Foundations Domain	STEM Standards of Practice	Standards for Mathematical Practice
<ul style="list-style-type: none"> • Recognize and identify emotions of self and others • Look to adults for emotional support and guidance • Demonstrate ability to resolve conflict • Seek and gather information to plan for projects and activity • Demonstrate ability to solve problems • Demonstrate ability to persist with a task • Manage the expression of feelings, thoughts, and behaviors • Demonstrate cooperative behaviors in interactions with others • Demonstrate ability to retain and apply information 	<ul style="list-style-type: none"> • Learn and Apply Rigorous Science, Technology, Engineering, and Mathematics Content • Integrate Science, Technology, Engineering, and Mathematics Content • Interpret and Communicate STEM Information • Engage in Inquiry • Engage in Logical Reasoning • Collaborate as a STEM Team • Apply Technology Strategically 	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them • Reason abstractly and quantitatively • Construct viable arguments and critique the reasoning of others • Model with mathematics • Use appropriate tools strategically • Attend to precision • Look for and make use of structure • Look for and express regularity in repeated reasoning