STREAMin^3™

integrated | intentional | interactions

Theoretical Framework

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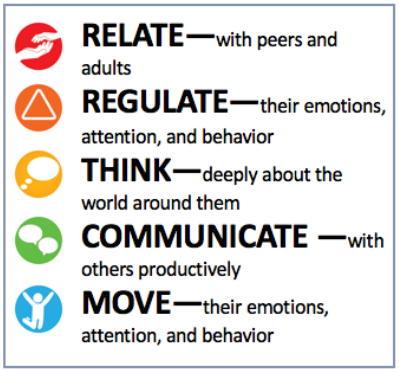
It's a fact – high-quality early childhood education is key to children's academic and social-emotional success.[1] But what does it mean for a child to experience a high-quality early educational experience? There are many components to consider, such as health and safety, as well as structural aspects including equipment, materials, routines, and schedules. However, it is the interactions between teachers and children and among children that matter most to support children's learning in the classroom.[2] Young children need teachers who:

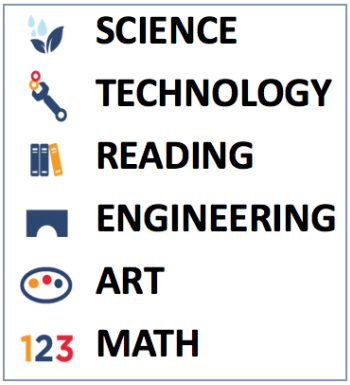
- Provide emotionally and instructionally supportive interactions to students within a well-organized context. And, who can facilitate interactions to support children's critical school readiness skills in literacy, math, self-regulation, social skills, and more.[3]
- Fully implement a comprehensive curriculum to support young children's learning and development through the use of developmentally-appropriate and highly engaging learning activities.[4]
- Regularly assess children's engagement and current skill levels in order to adapt activities to meet the needs of all learners and to know if children are learning.[5]
- Build relationships with families to support home-school connections.[6]

With these aims in mind, the STREAM: Integrated, Intentional, Interactions (STREAMin^3) curriculum model was developed by UVA's Center for Advanced Study of Teaching and Learning (CASTL). Not simply a list of activities, STREAMin^3 provides a comprehensive set of integrated teacher practices, routines, materials, assessments and professional development (PD) supports that equip teachers with the tools needed to support young children's learning across a range of important developmental domains. [7] Here, we explain the theoretical framework that we used to guide the creation of this curriculum.

Understanding the Curriculum

Central to any curriculum package is a focus on *what* children are learning and *how* they are learning it.[8] To address the "what" – STREAMin^3 identifies and focuses on promoting children's development of **5 Core™ Skills** that form the building blocks for later learning and **6 STREAM Skills** that prepare children for academic success in kindergarten and beyond.





Drawing from early developmental literature and learning standards,[9] both Core™ and STREAM skills map directly onto theory and research related to what we know about the developmental sequences and expectations that support early learning for infants, toddlers, and preschoolers.[10] These developmental standards serve as the underlying framework of STREAMin^3 to ensure that activities and materials are developmentally appropriate and relevant for children, while also serving explicitly as resources for teachers in supporting their own understanding of children's early learning.[11]

In focusing on the "how" of children's learning, STREAMin^3 integrates developmentally appropriate practice with an emphasis on individualization. *Developmentally appropriate practice* is defined as an approach to early learning that combines knowledge of child development and teaching with intention to "meet the child where s/he is".[12] Central to developmentally appropriate practice is the idea that children learn best when in the context of *relationships* that are supportive and *activities* that are engaging.[13] All STREAMin^3 activities, materials, and resources place an emphasis on guiding teachers throughout their interactions with children to create a learning environment that is fun, hands-on, and supportive of learning across many domains of readiness. STREAMin^3 provides teachers with **Intentional Teaching Practices (ITPs)** that serve as a blueprint for how to make the most of moment-to-moment interactions with children to promote Core™ and STREAM skill development. ITPs are interwoven throughout all aspects of the curriculum and draw teachers' attention *less to what* the activity is and *more to how* they can structure and scaffold children's engagement during that activity.[14] Through a blend of child-led and teacher-guided practices, teachers engage with children to promote autonomy, follow their interests, and tap into their natural curiosity.[15]

The other piece of the "how" – individualization – focuses on making sure that teachers pay attention and are responsive to each child's individual needs.[16] Young children do not follow the same pace and rate in their skill development[17] and STREAMin^3 is structured to embrace this variability through built-in opportunities for individualization. Materials and resources give guidance for teachers (e.g.,, soft-scripting, examples, suggestions), but leave room for their own flexibility, creativity, and responsiveness to children's needs.[18] Each activity, resource, and Core™ Skill card embeds supports for how to modify activities to provide more or less challenge so that children are highly engaged, as well as reminders and suggestions that place an emphasis on observing and responding to children's skills, interests, and background.[19] To help with this individualization process, teachers regularly observe and complete formative assessments as a way of measuring and reflecting on how each child is progressing toward learning goals.[20] Whether it be selecting specific content that builds on children's likes and dislikes, or modifying an activity or routine to provide extra scaffolding for a child, STREAMin^3 provides support for how to customize and adapt materials to promote inclusion and engagement of *all* children.[21]

What Makes STREAMin^3 Unique?

Comprehensive and integrated learning. Central to the STREAMin^3 model is a curricular focus on promoting learning and development across a wide range of developmental domains. Research highlights the need to consider young children's development of key skills as interrelated and connected – development in one area is often dependent on and/or influences development in another area.[22] With many early childhood curricula focusing on targeted/domain-specific content (e.g., a social skills curriculum, a math curriculum), STREAMin^3 combines *all* major areas of early learning – both academic and social-emotional – into one integrated curriculum package that makes it easy for teachers to tap into the major domains of early development. The curriculum is comprehensive in providing teachers with materials and resources that give an in-depth look into each Core™ and STREAM skill, while also using an integrated approach that draws upon and encourages children's development of multiple skills at once.[23] Using this framework, instruction focuses on the 'whole child', and children are able to experience learning in a way that connects and encourages deeper understanding of the world around them.[24]

Continuity and alignment. Coherence, continuity, and alignment in curricula is key to best practice.[25] STREAMin^3 creates a common lens and language that infant, toddler, and preschool teachers and program leaders can use to communicate with children, children's parents, and among each other.[26] Taking into account the unique processes, sequences, and variations for each major stage of development, each version of the STREAMin^3 curriculum is purposefully tailored to make sure that activities are developmentally appropriate and relevant to the children experiencing them.[27] The toddler and infant versions of STREAMin^3, for example, are not just simplifications of the preschool curricula, but rather each include practices that are intentionally crafted around how children develop and learn according to research and theory during each specific stage of development.[28] With this framework applied to each age group, this allows not only center-wide alignment in practice, but also continuity in children's learning experiences as they develop. STREAMin^3 is purposeful in providing teachers with materials, and strategies that encourage open, regular, and positive communication with children's families. This helps to ensure continuity in caregiving beyond the classroom, while providing opportunity for schools and families to collaborate and work together in promoting children's development.[29]

Comprehensive Professional Development. Providing teachers with curriculum materials is not enough to support their implementation. Teachers and leaders need training and ongoing support to implement all of the components of a curriculum with high fidelity.[30] The STREAMin^3 curriculum package includes professional development (PD) opportunities to both ensure teachers' understanding of child development and increase the effectiveness of their implementation of the curriculum. This is accomplished through embedded materials and resources, individualized coaching, and group PD sessions.

- **Embedded materials and resources.** Each week, attention is dedicated to focusing on and learning about one Core™ Skill and the ITPs needed to support this skill. Teachers develop an understanding of how a skill develops, observe children's display of the skill, and learn about and practice how to best support development of this skill using ITPs. As they rotate through the Core™ Skills throughout the year, teachers develop an understanding of all Core™ Skills, resulting in a continued learning experience that leads to development of a teaching "toolbox" that will guide teachers in their daily interactions with children.[31]

- **Individualized coaching.** Individualized coaching and regular feedback are the most effective strategies to improve preschool teachers' use of instructional strategies.[32] Through regular meetings with coaches that incorporate the use of live and video observations of teachers' practice, the coaching model of STREAMin^3 provides data-driven coaching to all teachers, while maximizing individualization and ensuring a strong practice focus.[33] In addition, teachers are systematically observed and assessed using implementation checklists that are designed to highlight and assess the most critical elements of the curriculum activities and routines.[34] All coaches are well-versed in the content of the curriculum and combine this knowledge with their observations of the classroom to provide ongoing, consistent, and intentional support and training to teachers. These personalized meetings help teachers become better observers and assessors of their own practice, increase feelings of self-efficacy, and improve implementation quality in ways that enable consistent and high-quality practice.[35]

- **Group Professional Development Sessions.** In addition to an individual PD experience, the STREAMin^3 model includes group professional development sessions that support teachers to implement the curriculum with intentionality and fidelity. Children need teachers with the knowledge and skills to support their development and learning,[36] and the integration of ongoing learning opportunities has been shown to result in significant effects on teacher practice.[37] In-person group sessions are led by coaches who focus on highly recommended topics/planned sessions, while modifying sessions as needed based on specific center needs. Coaches will look at classroom- and program-level data to determine patterns or areas of need (at the teacher or child level) or interest and plan targeted sessions that will help to address these needs. These in-person professional development sessions are designed to be interactive and to focus on identifying concrete goals and steps for teachers to help improve the quality of curriculum implementation, interactions between teachers and students, and instructional practices.

More Than the Sum of its Parts

STREAMin^3 is a one-of-a-kind, comprehensive curriculum model that supports teachers and leaders in how to make the most of the moment-to-moment interactions they have with their youngest learners. Using the latest research about how young children learn and develop, STREAMin^3 places an emphasis on creating a comprehensive, **integrated** learning experience that encourages teachers to be **intentional** in promoting positive **interactions** with and between children. STREAMin^3 provides teachers with the building blocks they need to make the classroom experience one that is developmentally appropriate, fun, and supportive of children's skill development across all areas of readiness. The power of vertical alignment shines when the curriculum is fully implemented across an early childhood program from infancy through preschool. This all-in-one, coordinated package helps teachers of all ages and stages share a common language and emphasis and, brings in families to continue the learning experience across all settings of child's life. At school, children move from one classroom to another with consistent structures and routines, and teachers and leaders are supported by their coach to take full advantage of what STREAMin^3 has to offer. Serving as a roadmap to ensure a high-quality early learning experiences, STREAMin^3 empowers teachers, leaders, children, and families to be active agents in their own teaching and learning, ultimately preparing children for success in the classroom and beyond.

End Notes

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