

Executive Function and Transitions

Nikki Baldwin, PhD



Executive Function

“The Brain’s air traffic control system”



-Harvard Center on the Developing Child



Working Memory

The capacity to hold and manipulate information in our heads for a short period of time.

Examples:

- Following multi-step directions without reminders
- Rejoining a game after stepping away for a drink
- Remembering who has the next turn



Inhibitory Control

The ability to master our thoughts and impulses and think before we act.

Examples:

- Waiting until called upon
- Focusing on an important task
- Resisting the urge to lash out during conflict



Mental Flexibility

The capacity to switch gears and adjust to changing demands, priorities, and perspectives.

Examples:

- Catching a mistake and fixing it
- Creatively solving a problem
- Understanding different expectations in different settings





Summarizing the science

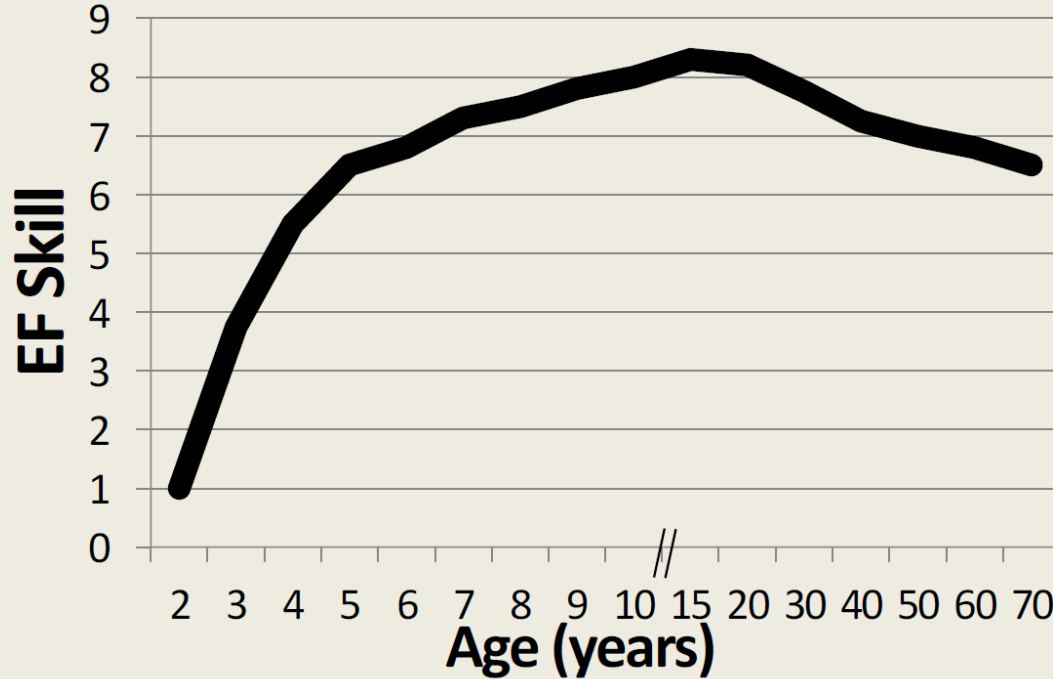
- **Environment and relationships** play a key role in young children's development of executive function skills.
- Children who experience **adversity** at a young age are more likely to experience deficits in executive function.
- **Communities, schools, family contexts, and socioeconomic status** play an important role in the development of executive function skills.
- The **building blocks** of executive function skills are acquired in early childhood, but the full range continues to develop into adolescence.



Summarizing the science

- Children enter school with **distinct profiles** of strengths and weaknesses in executive function skills.
- These differences **significantly impact** children's developing relationships and **adjustment to school**.
- Executive function skills are **not acquired automatically**.
- Children with compromised or delayed executive function skills can display challenging behaviors, for which **they are often blamed**.
- Explicit efforts to foster executive function skills positively influence **academic skills**.

Executive Function from 2 to 70



Zelazo et al., 2013; Carlson & Zelazo, 2015

-Stephanie Carlson, University of Minnesota

Supporting the development of executive function skills - examples

INFANCY



KINDERGARTEN

Peek-a-boo

Predictable rhymes

Hiding games

Following routines

Experimentation

Games with rules

Copying/imitation games

Responsive care-giving

Turn-taking conversations

Solving problems

Matching and sorting

Puzzles and thinking games

Exploring materials

Mastering new physical skills

Story-telling

Planning activities

Imaginary play

Tinkering and design

-Mind in the Making

Play and executive function



Imaginative/Symbolic Play

- Symbols create **psychological distance**, separating the child from the immediate environment.
- Symbols provide the space for **reflection**.
- This allows for **conscious control** of thoughts and actions.



Sociodramatic Play

- Engaging in cooperative + symbolic play (sociodramatic play) requires
 1. **Working memory** – remembering the context, scenario, props and roles
 2. **Inhibitory control** – suppressing one's desires and resolving conflicts
 3. **Mental flexibility** – adapting to change in real-time and solving problems



Guided Play - the executive function development laboratory

Learning Science – 4 keys to successful learning

**Mentally
active**
(not passive)

Engaged
(not distracted)

**Socially
interactive**
(with peers and
adults)

Connected
(to life and
experiences)



Features of guided play

Choice

participation
direction
continuation

Wonder

engagement
exploration
meaning

Delight

motivation
achievement
discovery

The impact of transitions on executive function





UNDERSTANDING AND SUPPORTING TRANSITIONS IN EARLY CHILDHOOD EDUCATION:

A Summary of Evidence and Recommendations for Wyoming

Nikki Baldwin, PhD

Introduction

RATIONALE

Change is a constant feature in all of our lives. Early childhood, perhaps more than any other phase of life, is defined by change. Young children ages Birth-8 experience dramatic changes in physical, language, cognitive, social, and emotional development. We understand that the early years are critical because this is the period in life when the brain develops most rapidly and has a high capacity for change (World Health Organization, 2020).

While young children experience enormous changes within themselves, they must also navigate change in their social world as members of families, schools, and communities. Supporting children's health and wellbeing as they experience moments of transition and change allows for the development of healthy brain architecture. This provides the essential foundation for all later learning, and for a healthy and happy life (Harvard Center on the Developing Child, 2018).

As findings regarding the essential need to support young children and families during times of transition increase, schools and communities must respond with

greater intention to ensure children's success. Understanding the evidence-base regarding young children and transitions provides us with the tools necessary to solve problems and improve programs to better meet their needs.

PURPOSE

The purpose of this paper is to provide a comprehensive summary of research on transitions and the importance of continuity for young children's healthy development. This resource offers evidence-based recommendations for consideration by state agencies, communities, schools and other entities supporting children and families in Wyoming.

In defining transitions in the early years, it is important to include more than just those formal experiences embedded within systems, such as the transition from home to childcare, a change in family services, or the transition to kindergarten. Transitions are a part of young children's everyday lives as members of families and communities, and children's success during informal transitions also has an impact on their development and learning (Brooker, 2008;

CURRENT PRACTICES

The factors affecting children's experiences with transitions and strategies for supporting transitions previously discussed apply equally well to the transition to kindergarten. A few supports are worth mentioning again in the context of the transition to kindergarten given patterns that have been established by schools and communities. Pianta and Kraft-Sayre (2003) state,

"...The most common things that schools do during transition periods are not what parents think would be beneficial to them and their children. Thus, the challenges experienced by children are not addressed by the most common ways schools try to help them. This disconnect between schools' and families' needs is most often a function of the model schools use to guide their transition practices (p. 3)."

Some of the common strategies used by schools to support transitions that may contribute to this disconnect for children and families in Wyoming include the following.

Communication

Well-intentioned schools and communities commonly welcome families and children by offering a great deal of information about the school and/or the expectations of kindergarten teachers. Communication from families to the school is often minimal, and specific to procedural tasks such as registration, lunch sign-up, or availability for meetings. Communication from children if sought or received at all, is rarely used to plan instruction or inform practice. While one-directional communication serves a purpose, it has limited impact upon outcomes for children. Use of bi-directional communication strategies offers opportunities to strengthen essential relationships, build upon children's experiences, and authentically assess children's knowledge. Identifying family strengths and funds of knowledge allows authentic learning partnerships to emerge and provides a solid foundation for children's learning.

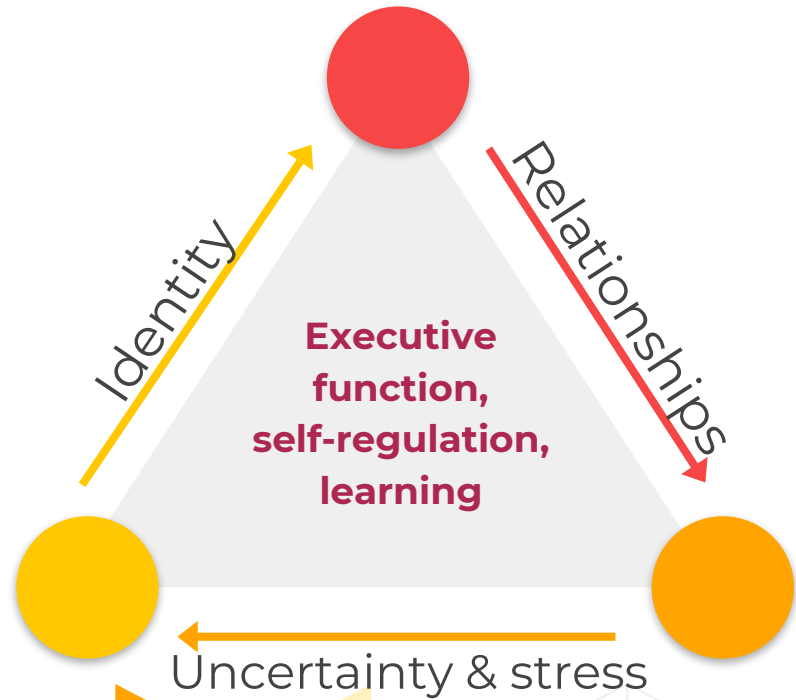
Collaboration

A similar approach to communication with early childhood programs is evident in many community-level collaborative efforts to support kindergarten readiness. Often early childhood professionals, including childcare providers and preschool teachers, are positioned as recipients of information on school expectations and skills children need. Tools like readiness checklists are frequently developed, placing the burden of readiness on the shoulders of early childhood professionals rather than all members of the community. Differences in philosophy and pedagogy between schools and early care and education programs also present a hurdle to collaborative efforts. Finding a path forward requires engaging in difficult conversations in order to reconcile differences in philosophy and practice. Both early childhood professionals and kindergarten teachers must recognize and share essential knowledge and effective practices in order to decrease discontinuities in kindergarten student's experience.

Timing

Most common transition practices involve contact with families once school begins. These typically include one-directional communication such as announcements, newsletters, flyers, and in-person events such as back-to-school nights. Transition supports frequently occur at the start of the year and end within the first weeks of school. While children with disabilities and children in Head Start are frequently provided long-term transition planning, this opportunity is not available to all children. For all children to experience a successful transition, the process must include preparation and communication well ahead of time, support during induction, and extended support over months or even years. (Brooker, 2008; Jozwiak et al., 2016; Little et al., 2016; Pianta & Kraft-Sayre, 2003).

The impact of transitions on young children





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A calm, regulated child can respond to uncertainty with curiosity and interest, wondering what will happen next and feeling ready for it. For a child who is already anxious, uncertainty may trigger increased amygdala activity and shut down other cognitive processes like the urge to investigate or experiment, because the uncertainty seems to pose too much of a threat to allow new learning. (O'Connor, 2018)

Factors Impacting Successful Transitions

Setting

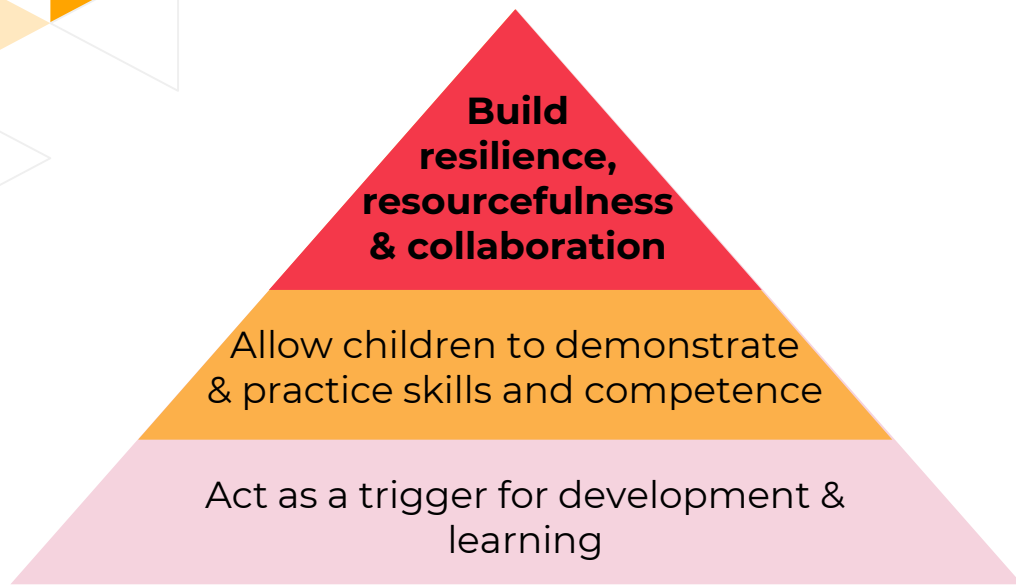
- **Similarities** between settings
- **Communication** between settings
- **Supportive links** between settings
- Interest in the child and family's **background and experiences**
- Degree of match between **expectations** and how children think and learn.

Relationships

- The child's **sense of belonging**
- The child's access to **warm, affectionate and attuned responses** from adults
- Child and family connection to a **key adult**
- If the child has a **friend** in the new setting
- Parent **attitudes** about the transition

Agency


- Children's opportunities to engage in **open-ended learning**
- Children's feelings of **confidence** making choices
- Children's **sense of control**
- Opportunities for **collaboration and problem-solving**
- **Children's play** as a tool for meaning-making



**Transitions supported by educated,
intentional adults**



Reimagining the transition to kindergarten

A young boy with a yellow backpack stands on a sidewalk next to a yellow school bus. The bus is parked on a street with a green lawn and a palm tree in the background. The boy is looking at the bus with a curious expression. The bus has a large black grille and a yellow light on the front. The scene is brightly lit, suggesting a sunny day.

◀ “School is a BIG place!”

– New kindergarten student

How big Is the transition?



Differences in settings

Physical

- Physical surroundings differ in size, location, number of people, bigger kids, etc...

Social

- The social world becomes larger and more complex, with different social networks, friendships, identities, and adults with whom they interact.

Philosophical

- Approaches to learning and teaching differ, along with what is prioritized and how time is spent.

Support

- Children are given less individual attention and less support during routines and learning.



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*The transition to kindergarten involves changes for children that **none of their previous experiences could have prepared them for**. This is particularly true when there is a gap between children's social, cultural, and linguistic experiences at home and the expectations placed upon them in the new setting (Allingham, 2015, Docket & Perry, 2007).*

Expectations

Academic demands

Grouping

Self care routines

Rules

Reward systems

Arrival and departure

Independence

Communication

Organization

Self-regulation





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*Neither parents nor teachers regard themselves as having to change as much as the children during the transition to school... As children start school there is a clear expectation that they will change, and change considerably. In other words, **the expectation is that the least experienced participants in the transition—children—will change the most.** (Dockett and Perry 2007).*



*How can schools
and communities
accept greater
responsibility for
change?*

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