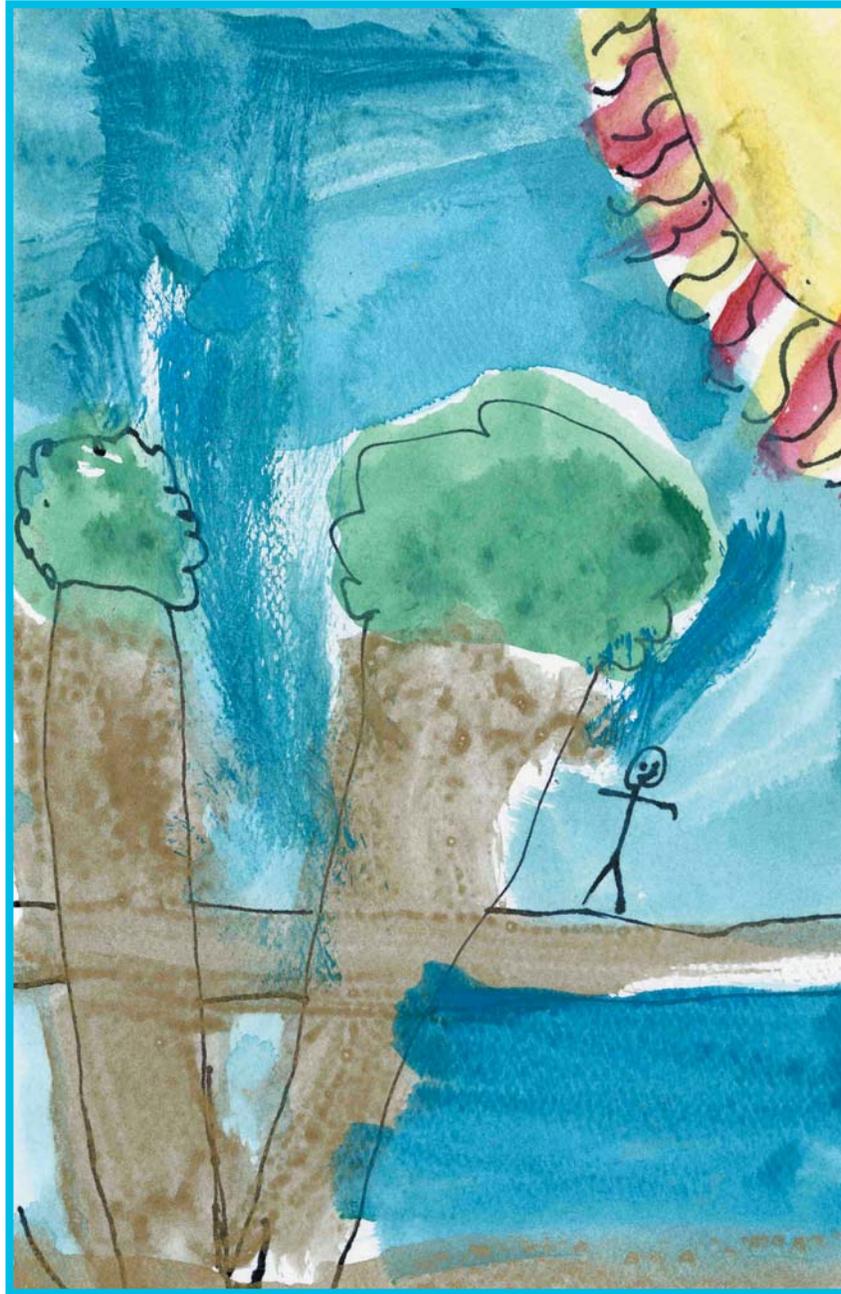


STANDARDS OF EXCELLENCE
IN EARLY LEARNING:
A MODEL FOR
CHICAGO CHILDREN'S MUSEUM



EXECUTIVE SUMMARY

STUDY LEADERS:



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A Graduate School in Child Development

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Acknowledgments

In preparing to develop a new vision and plan for expansion, Chicago Children's Museum (CCM) assessed its current facility and visitor experience. Part of this assessment involved interviews with stakeholders, who were asked to comment as both visitors and supporters of the museum. Their remarks and recommendations regarding CCM's potential to serve its community more fully were the impetus for embarking on the *Standards of Excellence* study. We are extremely grateful to the following individuals for their candor and insights during this original assessment process.

ELLEN ALBERDING, President, *The Joyce Foundation*

AMINA DICKERSON, Director, Corporate Contributions, *Kraft Foods Inc.*

JAN EPSTEIN, Executive Director, *The Allstate Foundation*

PHYLLIS GLINK, Executive Director, *The Irving Harris Foundation*

SANDRA GUTHMAN, President, *Polk Bros. Foundation*

JANE GARZA MANCILLAS, Executive Director, *El Hogar del Niño*

LEWIS MANILOW, *The Nathan Manilow Foundation*

SARAH SOLOTAROFF, Senior Advisor, *The Chicago Community Trust*

KATHY TISDAHL, Member and Parent

BERNICE WEISSBOURD, President, *Family Focus, Inc.*

BENNA WILDE, Managing Director, *Prince Charitable Trusts*

This study also drew on the expertise of many early childhood professionals from around the U.S. and the international community. Through the course of this study, CCM spoke with people working in media, toy development, policy, education, curriculum development, learning research, and informal learning. We would like to thank all those who have participated in the study to date.

ROLLIE ADAMS, CEO, *Strong Museum*

TANYA ANDREWS, Executive Director, *Children's Museum of Tacoma*

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EMILY FENICHEL, M.S.W., Editor, *Zero to Three Journal*; Editor-in-Chief, *Zero to Three Press*

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TERESA THOME, Executive Director, *Grand Rapids Children's Museum*

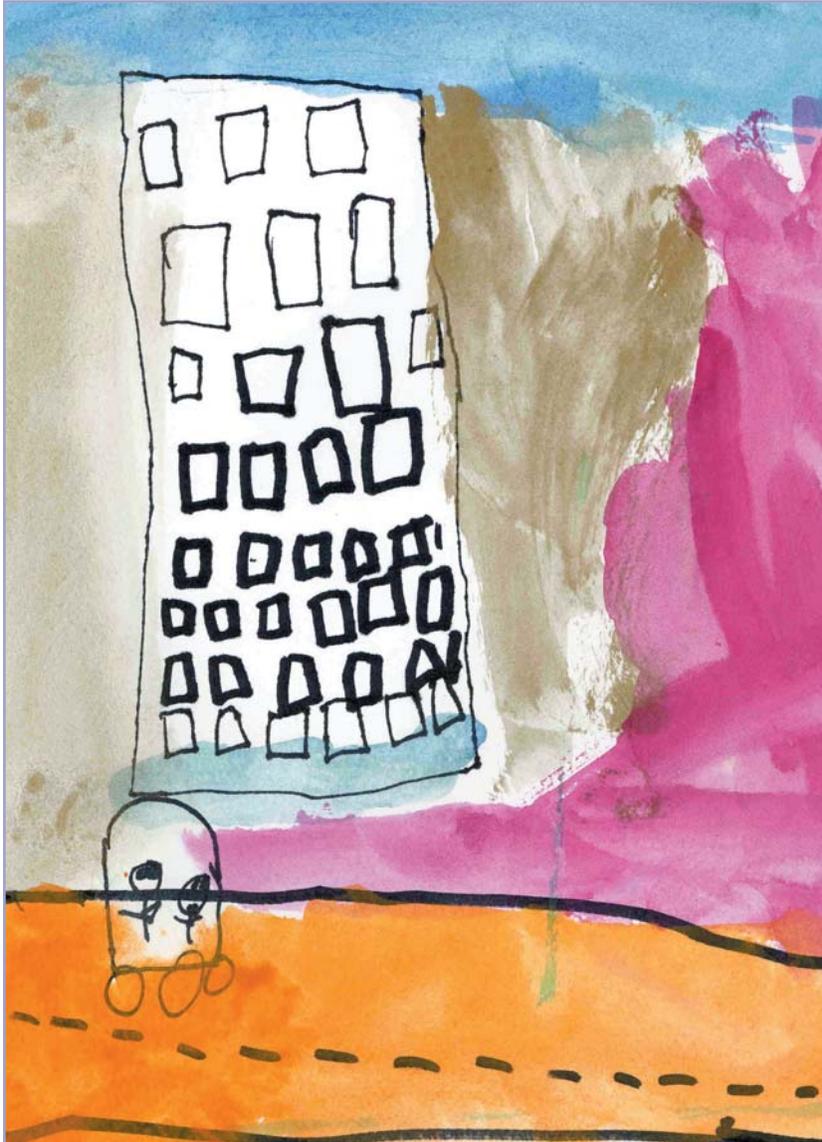
LOUIS TORELLI, Principal, *Spaces for Children*

JEANNE VERGERONT, Museum Planning Consultant; Former Vice President, *Minnesota Children's Museum*

STANDARDS OF EXCELLENCE IN EARLY LEARNING: A MODEL FOR CHICAGO CHILDREN'S MUSEUM IS PARTIALLY FUNDED WITH GENEROUS SUPPORT FROM THE INSTITUTE OF MUSEUM AND LIBRARY SERVICES, A FEDERAL AGENCY.

AMERICAN AIRLINES, OFFICIAL AIRLINE OF CHICAGO CHILDREN'S MUSEUM

Chicago Children's Museum Mission Statement



The mission of Chicago Children's Museum is to create a community where play and learning connect.

Chicago Children's Museum Vision Statement

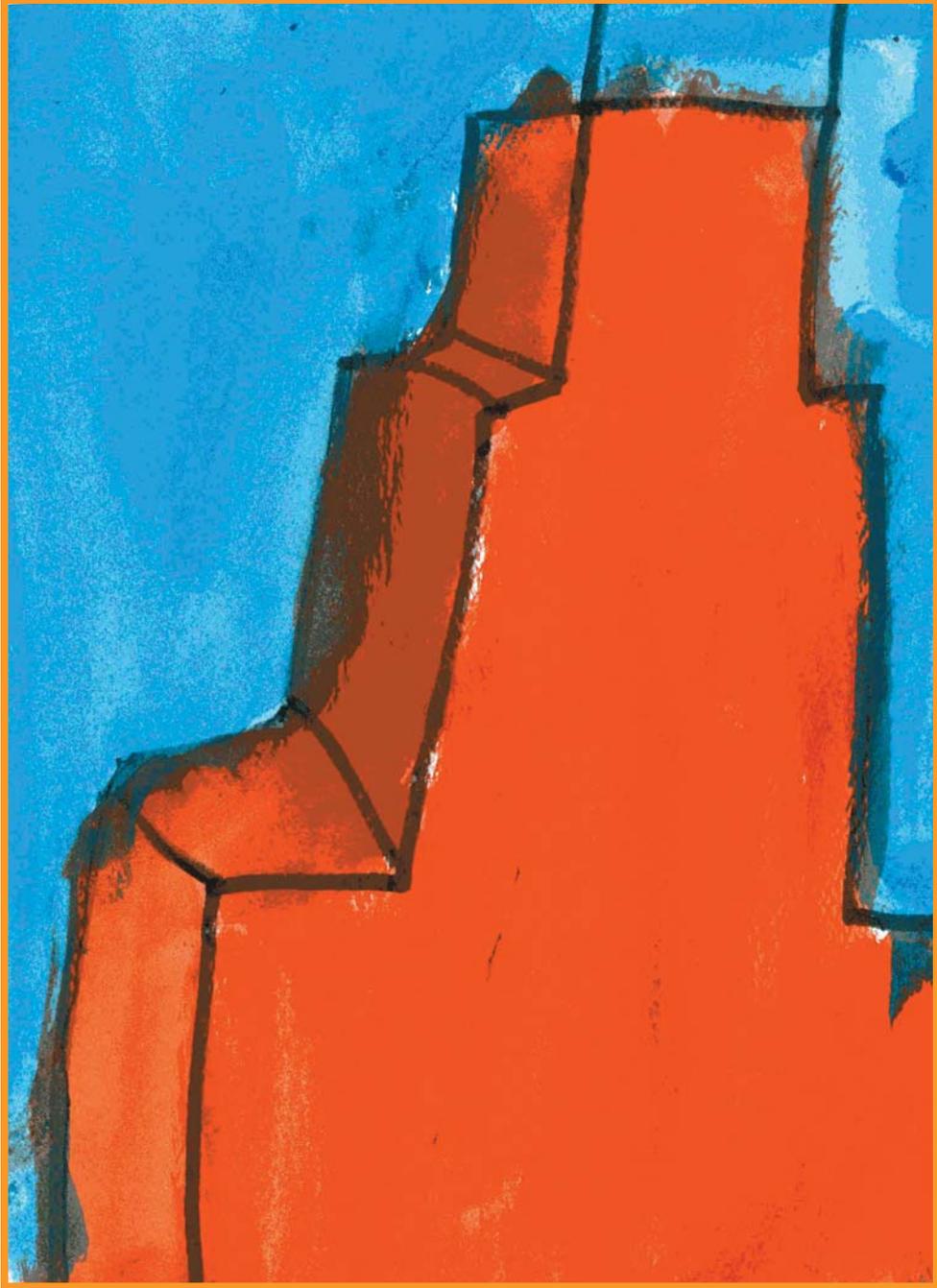
CHICAGO CHILDREN'S MUSEUM ASPIRES TO BE...

- Reputation** A place of beauty, joy, wonder and magic
- An institutional leader in applying the science of early learning to outstanding exhibits and programming
 - An international leader in the museum field for our work with communities
 - A dependable resource for families, care providers and educators
 - Recognized for promoting and honoring diversity
 - Financially stable, self-sufficient, properly capitalized
- Age Target** Meaningful for birth through 10 and a model of its kind for early learning
- Physical Space** World-class in design to maximize the museum's spectacular internal and external environment, and 20,000 square feet larger in 2005
- Staff** An institution that recruits, retains and values a diverse, high-performing staff

CHICAGO CHILDREN'S MUSEUM ASPIRES TO OFFER...

- Exhibits** Fresh, relevant exhibits that engage, challenge, spark creativity and tackle tough issues
- Superior interactive experiences that foster an excitement for the arts, science, literacy and diverse cultures
- Programming** A rich variety of multi-cultural programming, performances and workshops.
- A focus on literacy, arts and science
 - Child-centered programs that reinforce the educational goals of each exhibit and the museum's mission
 - Activities to extend the museum experience in homes and classrooms
 - Programs and resources for the important adults in children's lives
- Community** Increased access to individual families and community organizations
- Connections** A network of links, through leveraged partnerships, to reach low income and/or isolated children and families
- Culturally sensitive, first-person programming—through such offerings as Passport to the World—reflecting Chicago's diverse communities
- Educational** Programs that respond to the needs and interests of students, educators and communities
- Support** Expertise in education and child development, integral to the city's formal and informal education networks
- High quality—and accessible—student visit programs connecting exhibit content to school curriculum

Adopted by the Chicago Children's Museum Board, December 4, 2002.



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Section One: Introduction

Chicago Children’s Museum is working to become “a model of its kind in early childhood,” and “a community where play and learning connect.” To realize those goals, CCM has pursued a two-year study to understand the dimensions of such a model and to incorporate that understanding in planning for major changes to the museum’s building and public programs. The study has been conducted in partnership with Chicago’s Erikson Institute, a national leader in child development; Civitas, a not-for-profit Chicago organization focused on transforming early childhood research into practical bilingual tools for education; and Gyroscope, a museum planning and design company from Oakland, California that was retained by CCM to develop a conceptual framework and design for the new museum. The new museum’s plan is to bring an overall coherent structure to the visitor experience, embodying CCM’s mission and current outstanding achievements.

Impetus. The idea for the study evolved from discussions with stakeholders during an early phase of planning for redevelopment of the museum. A central theme in these discussions was the idea that CCM should strive to become the premier early childhood informal learning resource in Chicago. Working to reach this stature will strengthen the services CCM already offers to young families and position it more centrally within Chicago’s cultural and educational communities. Based on these recommendations, CCM’s Board of Directors and President commissioned a study to identify best practices in early childhood. The outcome of this effort is a report describing how CCM might revise its organization and its own practices to become “a model of its kind.” The Board saw this as an opportunity for the institution to think carefully about what it wanted to become and how it might communicate that new identity as it embarked on a major renovation of its building and exhibits.

Goals. Becoming a model of one’s kind requires both the definition of standards and the practical means to achieve them. For that reason, the study team sought not only to review the recent findings of early childhood researchers, but also the work of individuals implementing those findings in settings such as classrooms, after-school programs, and other children’s museums. The team also reviewed the organizational issues stemming from these efforts and how other institutions deal with them. Finally, it examined strategies for communicating these ideas with diverse audiences, including academic researchers, funders, policy makers, and users of the museum’s programs.

Overall, the purpose of the study was not to conduct original research, but to identify a set of best practices that CCM could use to reach its goals. These ideas are drawn from existing programs. As such, the standards they describe represent current practice. What is new is their aggregation and reshaping into a plan for action by a major children’s museum.

Section One: Introduction

Goals of the Study

- 1) To describe CCM's operating framework as a model for early childhood learning
- 2) To gain a better understanding of the diverse needs of CCM's audience for early childhood information, services, resources and experiences
- 3) To create a core competency within CCM around early childhood issues
- 4) To position CCM as a partner in dialogue with other organizations that provide learning opportunities for young children
- 5) To gather information on early childhood from a variety of sources for use as a foundation in planning and design

The Team. Erikson Institute, a leader in early childhood research and graduate study, Chicago Children's Museum, Civitas and Gyroscope each brought different strengths and skills to the project. Erikson Institute, a leader in early childhood research, provided theoretical depth and rigor to the study. Its staff drafted the interview questions, developed all assessment tools, produced analysis of the research, and wrote two papers guiding the process and defining key terms for discussion. CCM staff provided practical experience with applying learning theory on the floor of a large children's museum. Civitas worked with the project on parent communication and helped tie the study into other early childhood efforts moving forward at the same time in Chicago. Gyroscope team members organized the study, provided research assistance, and brought expertise in informal learning and the relationship between design and behavior. Gyroscope staff also wrote the study's interim and final reports. The Association of Children's Museums is the dissemination partner for the report. The team was led by the following individuals:

Chicago Children's Museum

KAREN HARRISON, Board Member
BARBARA MANILOW, Board Member
PETER ENGLAND, President & CEO
LOUISE BELMONT-SKINNER, Vice President of Exhibits
JENNIFER FARRINGTON, Vice President of Education

Erikson Institute: A Graduate School in Child Development

SAMUEL J. MEISELS, Ed.D., President
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Gyroscope Inc.

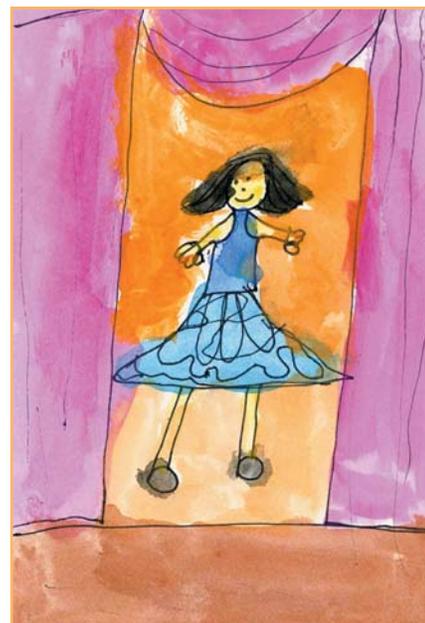
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HALEE SAGE-FRIEDMAN, Director of Product Development

Association of Children's Museums

JANET RICE ELMAN, Executive Director



Section Two: Methodology

First Steps. The team began with an effort to explore what “a model of its kind” might look like and to define its parameters and protocols. It reviewed literature on early childhood play and learning, and discussed how the current research in those areas might inform strategies for CCM and its programs. Erikson took the lead in summarizing current research into play and learning and in proposing a framework for applying that research within CCM. This work was supplemented with a review of work by Minda Borun, John Falk, Lynn Dierking, and other researchers in the informal learning field.

Expert Interviews. From these discussions, the team identified early childhood researchers and practitioners from other children’s museums who could be interviewed to guide CCM’s approach to early childhood, play and learning. The team decided to proceed in two stages. The first involved interviews with eleven “lead” subjects who were chosen to provide a broad view of the study’s concerns and to suggest additional interviewees to address more specific concerns. This list was intended to pinpoint people with a national perspective on early childhood efforts that could direct the study team to specific examples of best practices. The team analyzed this first round of interviews for recurring themes. Three main questions emerged:

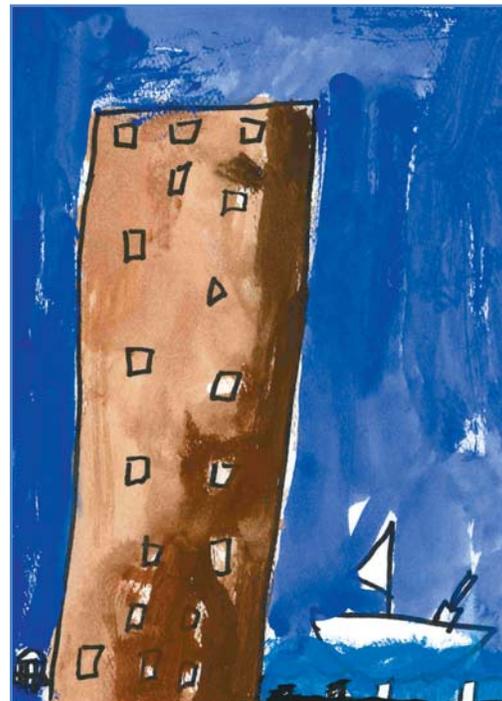
1. *What are the unique processes that a “model of its kind” might use?*
2. *What are the important ideas about play and learning that might underlie such a model?*
3. *How can we most effectively communicate with parents and community members?*

The second round consisted of thirteen additional “primary source” interviews with individuals whose experience related to the above questions. Chosen from those recommended by the leads, all of these interviewees were practitioners who worked directly with children.

Analysis. The team recorded extensive notes from all interviews and studied them for recurring themes and recommendations using a qualitative assessment tool developed by Erikson. Those themes are discussed in the next section of this report.

The Conference. In January 2005, team members presented emerging themes and recommendations at a conference in Chicago, and hosted a series of workshops for the express purpose of defining what we mean by “a model of its kind,” describing its profile, and identifying next steps. The conference was the first in a series of events, interviews, and site visits that are part of the evergreening process described in the *Standards*.

Defining the Model. A final report summarizes all the phases of the study and establishes action items for implementation. The model is ultimately described through these actionable topics.



“If the experiences children have are registered by them as authentic and not as things adults think are cool for kids or as what kids need to know—then they will cooperate and work with one another to whatever lengths they need to.”

—Bob Hughes

Section Three: Standards

1. Defining Early Childhood. A crucial goal of the study was to reach an agreement on a definition of early childhood. The experts recommended birth to eight as the prevailing standard, although several of the interviewees pointed out that it is not desirable or even possible to design effective programs and exhibits for such a wide range of ages. The team also noted issues with excluding nine to eleven-year-olds from the museum's core audience. In the end, the team decided to adopt the national standard of birth to eight for early childhood but to address smaller segments of this age range in the design of exhibits and programs.

2. Focusing on Families and Learning. Both the team's review of the early childhood literature and many of the interviews emphasized the social aspects of learning and the powerful influence of family on a child's learning success. For young children, the family is the social group most critical to early learning and to the development of the skills and confidence needed for learning later in life. If CCM wishes to support childhood learning, it needs to support family involvement in that learning. That said, CCM and other children's museums have not made families a priority in the design of their programs. This is an opportunity for CCM to reshape its own program and to lead the children's museum field in that direction.

The implications of this idea lie in two areas—how the museum communicates the value of children's experiences to adults, and how it supports adults in taking on roles and acting in ways that support the child's learning and play. Informed by the latest findings from the early childhood research community, the museum needs to offer discovery experiences that intersect with all of the developmental domains of early childhood.

CCM's new focus on family learning will position parents and other caregivers as active participants in the museum experience and as an audience in their own right. Experiences within the museum will aim to engage parents, as well as their children, in playful learning experiences. Its environments and furniture will accommodate the ergonomic needs of adults as well as children. Parents will learn how to recognize their children's learning and how to support it in ways that can continue long beyond a museum stay. For children, the museum's exhibits and

programs will offer an ever-changing set of discovery experiences; for parents, they will provide opportunities for developing the skills and confidence to make playful learning an everyday feature in their family's life. Increased parental involvement, encouraged and supported by CCM staff, will add another adaptive resource to the museum by extending the level of facilitation beyond what staff could provide directly, and it will transform the museum from a leisure destination into a resource for strengthening families and communities. This effort will require an integrated approach that includes design, visitor services, staff training and facilitation, activities, and communication—everything from formal publications to the infrastructure of the museum visit.

3. Making Learning Visible. The interviews emphasized the importance of making learning visible within play—for two reasons. The first is perhaps defensive—a reaction to the educational debates that have dichotomized content and process and have lately favored the former over the latter. Despite widespread agreement among early childhood experts that play is crucial to child development, it is often undervalued by U.S. society at large. Standards-based approaches to education have pushed content goals and testing down to younger and younger ages and have positioned play as a distraction from learning rather than as one of its most potent forms. In this environment, it is not enough to support playful approaches to learning—it is necessary to make that learning visible for all to acknowledge. Parents, teachers, and others concerned with whether and what their children are learning must be assured that play is a form of learning children need and one that will provide a foundation for other forms of learning later in life.



Section Three: Standards

A second argument for making learning visible relates to the learning experience itself. Play is indeed a powerful approach to learning and one that all children use. But not all children learn with the same ease and not all are equally well supported in their efforts. Making their learning visible—not just to parents and teachers but to the children themselves—turns out to hold considerable advantages for the process of learning itself. The efforts of the Reggio Emilia preschools in Italy have demonstrated how making learning visible to the learner can, in turn, lead to more rapid and effective learning for individuals and groups. Giving children opportunities to document their learning and to reflect on it helps them learn how to learn—to take learning developed in one context, revise it, and apply it to other contexts.

The purpose of such documentation is not for evaluating the child's performance, but for converting their internal discoveries into external artifacts that are visible to themselves and others alike. This externalizing of their understanding allows children to re-encounter and reflect, not only on their own learning but that of others, too. It makes it possible for children to learn from each other and allows parents, teachers and other concerned adults to support the process.

4. Understanding Play and Learning. The team began the study with the conviction that early childhood play and learning are fundamentally linked. Both its review of the early childhood literature and its interviews of early childhood experts have confirmed that linkage and offered numerous insights about recognizing, understanding, and supporting the kinds of learning that occur within play. Many of the experts interviewed for the study stressed the importance of play and suggested specific methods for applying different approaches within the context of a children's museum. For example, George Forman, Professor Emeritus for Education at University of Massachusetts, spoke of play as "problem solving without consequence," and his belief that what children are learning in play is the structure

of tasks and problems. Janet Rice Elman, Executive Director of the Association of Children's Museums, spoke about the need to reach parents and educators with messages about the importance of play. Teresa Thome, Executive Director of the Grand Rapids Children's Museum, described how her museum had infused play into its culture, positioning play to be as important for parents and the museum's staff as it is for children.

PLAY TENDENCIES

Characteristics of Play:

- Spontaneity
- Active engagement in activity
- Absorption in task
- Intrinsic motivation
- Being free of consequences

Adult Behaviors Indicating Facilitation of Play:

- Positive engagement (suggesting play scenarios, complimenting choices)
- Allowing child to lead activity
- Following child's interests

"Play is first and foremost the process of a child's own, self-directed learning and as such is a process that has a validity for all ages of children. It is such a vital component of a child's life that the child's capacity for positive development will be inhibited or constrained if denied free access to the broadest range of environments and play opportunities."

—Welsh Assembly Government's Play Policy, October 2002

"Play is problem solving without consequence."

—George Forman, Ph.D.

Section Three: Standards

LEARNING TENDENCIES

Characteristics of Learning:

- Causing something to happen by accident and trying to recreate the effect
- Imitating another's behavior, generally an older, more experienced person
- Assimilating a new idea (*using existing understanding to make sense of something new*)
- Accommodation of a new idea (*changing understanding of the world to make sense of something new*)
- Mastery of task (*through independent trial and error, or by participation, guided by adult*)
- Applying prior knowledge to current situation
- Making connections between disparate ideas (*such as realizing this new toy at preschool can be operated just like the one at home, even though it's a different toy*)
- Using a strategy to remember something (*such as, if counting the total number of cookies, "I remember that we always get two cookies to start with...so rather than counting one, two, I'll just start with three..."*)
- Thinking about own thinking —metacognition (i.e., *"I know that I have trouble with addition, so I'll ask my older brother to help me with this, so I can get on to the next thing..."*)
- Repeating a word or phrase spontaneously
- Using a new word or phrase in appropriate context
- Asking questions
- Retelling in own words

Adult Behaviors Indicating Facilitation of Learning:

- Modeling how exhibit components are to be used, how to interact, how to explore ideas in exhibit
- Introducing the exhibit and helping describe the tasks/components of the exhibit (*"Oh, here, we're going to build a boat."*)
- Offering non-specific instructions and questioning (*"Think about what you are doing," "You have plenty of time," "Are you sure you want that to go there?"*)
- Offering ideas to extend the child's thinking (*"What if you put that piece there instead?" "What do you think would happen?"*)
- Offering motivational praise and feedback (*"You are doing well," "I like how you are choosing your colors," or "Look how much you have already done."*)

"The things that are freely chosen by the child, and the pleasure in the activity, are among the ends we are trying to achieve. A whole range of learning is tied to those choices."

—Samuel J. Meisels, Ed.D.

Section Three: Standards

5. Measuring Success. A museum devoted to playful learning needs appropriate measures of success. The interviews stressed the importance of looking to visitor behavior to see if learning is taking place. The charts on the previous pages are examples of the types of observable behaviors that can reveal a child's learning within play and adult support of that play and learning.

6. Designing for Learning. Another major theme that surfaced within the literature and the interviews was the significance of the physical environment itself. The importance of age-appropriate experiences, the use of natural light, authentic materials, and the provision of “real” experiences with multiple levels of challenge were also recommended by many commentators. The discussion touched on the impact of color schemes and the importance of beauty in letting children know they are valued. It stressed the need for a variety of spaces—active and quiet, social and private—and the need to accommodate and encourage intergenerational involvement to keep families together and both adults and children comfortable and engaged within the museum environment.

Design also needs to take into account the museum's own learning by allowing for change over time. Becoming (and remaining) a model of one's kind requires both a commitment to experimentation and the adaptable infrastructure to support it. In a museum committed to experimentation, both architecture and exhibit design need to accommodate change.

“Fundamentally, children's environments should be ‘finding out places’—opportunities for children to discover not just new objects, but new connections between things, their properties, and their potential uses.”

—Samuel J. Meisels, Ed.D.

7. Creating a Community of Playful Learners.

Already a rich resource for early childhood in its own right, CCM can achieve far more in partnership with others. The museum needs to position itself between the early childhood research community and the public. Because of its high visibility and strong association with early childhood learning, the museum is ideally suited to serve as a hub of a community of learners that links academic researchers, museum staff, and the families that make CCM a part of their lives. To do that, it needs to become a playful discovery space for both children and parents. For the kids, a place for learning about their world, and for their parents and other caregivers, a place for learning about learning itself—how to recognize it, understand it, and support it in the lives of their children. For both audiences, CCM becomes a place that nurtures their relationships with one another.

8. Building Institutional Capacity. Becoming a model of one's kind in early childhood learning is a long-term commitment that requires organizational change and ongoing effort. It takes investment in staff training and professional development to help staff understand the learning that is happening in the galleries so they can help others understand and appreciate it too. It also requires training staff as models and examples of best practices in interaction with children. Those practices need to be lived and expressed in every part of the museum, every single day.

The interviews stressed the importance of grounding CCM staff in the best early childhood research available. This in turn requires building and maintaining a network of relationships between the museum and the research community and developing the skills to convert that research into practice. It also requires the ability to communicate the significant findings of early childhood research to parents and other CCM stakeholders.

“Live, sleep, and breathe your message.”

—Teresa L. Thome

Section Four: Implications for Practice

Out of these standards, an emerging vision for the new CCM has begun to take shape. Following are some of the key lessons that have the potential to shape the institution's practices moving forward.

Community Partners. Becoming a community where play and learning connect will require relationships beyond the walls of the museum and the Erikson Institute. CCM has many existing partnerships with Chicago community organizations. In strengthening these and building others, CCM will extend its reach and share its practices of playful learning with the families of Chicago and beyond. In the emerging vision for CCM, the museum is a network facilitator and a hub for early childhood providers throughout the city. It needs to create mutually beneficial, long-term relationships and behave generously within those relationships—even when there is no immediate benefit to CCM.

Being responsive to a community also means involving community in the museum's decision making. This means asking questions of the community—not just providing answers. Involving community members early and often, keeping them up-to-date, and allowing them to see the trajectory of the conversation are crucial to their investment in the decision making process.

Links to Research. A recurring recommendation in many of the interviews was the idea that children's museums should partner with early childhood research institutions to remain aware of developments in the field that have implications for museum practice. For CCM this might translate into a strengthening of its existing relationship with the Erikson Institute, a national leader in early childhood research. For instance, Erikson, as well as other university graduate students, could use the museum as a new venue for research. They could work with museum staff to translate the latest developments in the early childhood field into successful museum and family learning experiences.

Theory to Practice. The findings of researchers do not often come ready to use in the real world. CCM is uniquely suited to positioning itself between the early childhood research community and the parents, teachers and other caregivers who need practical approaches to understanding and supporting children in their learning. To do this, CCM needs to adapt research findings into practical tools for use at the museum and in the lives of its users.

Measures of Success. As noted above, making learning visible is crucial both to learning through play and to advocating for playful learning. CCM needs to build in documentation methods to the experiences it offers families, and it needs to build in documentation of its own learning as well. Using the aforementioned indicators of play and learning can help measure success. First, in understanding these markers, staff can use them in development, facilitation, and evaluation, in order to ensure the efficacy of CCM's programs and exhibits. Second, CCM must develop innovative ways for communicating these play and learning behaviors to their public, so that families and educators can use them as tools to elevate the quality of engagement in play, and understand and support each other's learning both at the museum and at home or school.

*"Never go out and say, 'This is the information.'
Always co-construct the knowledge."*

—Emily Fenichel



Section Four: Implications for Practice

Staying in Touch with the Field. CCM needs to remain aware of what is going on in other children’s museums and the rest of the informal learning community. Regular participation in professional conferences, staff visits to other museums, and tracking publications in the field are all ways to maintain that awareness.

Involving Parents and Teachers. CCM staff can be effective models for how caregivers and educators facilitate learning through play and add value to the museum experiences. Because we recognize that play’s value has a variable role, culturally and socially, the new CCM should encourage and validate a range of participation by adults—from active engagement to quiet observation.

Advocating for Playful Learning. The fact that play is not universally valued as a form of learning suggests an ongoing advocacy role for CCM. This advocacy begins with the example that CCM sets in its exhibits and programs, but it extends to other forums like governmental hearings, conferences, and the popular media.

An Organization of Playful Learners. To become “a model of its kind,” CCM needs to build a staff with the skills and values it seeks to model for others. This will affect recruitment, training, development, and staff organization. It will require broad familiarity with early childhood research on play and learning, an understanding of cultural diversity, a commitment to visitor service, and a passion for continuous program experimentation. Building and maintaining that capacity is not a onetime task but a continuous process that should embody the love of play and learning that CCM seeks to engender in its users.

The power of play as a form of learning should be expressed in all aspects of the museum’s business. This involves developing a consistent organizational definition of play. Play is a subjective term, but it is necessary for CCM to have an organizational definition that is comprehensible to all staff, visitors and community. Play should be visible throughout the organization, in titles, language, training, signage, and interactions with the public and among staff.

“Kids learn about diversity through exposure to the fact that it exists. The Museum can create visibility to all the ways diversity exists. We all have rituals and celebrations, and we all celebrate them differently. The Museum can touch on the similarities and the differences.”

– Louise Derman-Sparks

“Play is so critically important to all children in the development of their physical, social, mental, emotional and creative skills that society should seek every opportunity to support it and create an environment that fosters it.”

–Welsh Assembly Government’s Play Policy, October 2002.



Section Five: Design for Playful Learning

Strategies for Mixed-Age Groups. CCM needs to break down the traditional and nationally accepted definition of early childhood into smaller segments. Each of those segments (0-1, 1-3, 3-4, 5+) is an audience with developmentally specific needs. Traditionally, children's museums have provided Tot Spots for the infant to three group and largely called the remaining galleries "all ages." The idea that each gallery might offer a mix of experiences appropriate for children of different ages and even for the very young child is relatively rare.

CCM's exhibits should provide stimulation and challenge, as well as opportunities to slow down and spend quiet time. Group experiences need to mix with some individual experiences. The variety of experiences needs to account for different learning styles, social needs, abilities, and ages. The mix needs to include experiences that allow children to take risks, push their limits, and feel mastery.

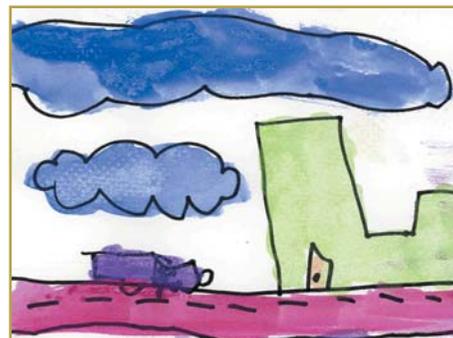
In keeping with CCM's intention to engage parents and other caregivers in the museum experience, the design needs to work for adults as well as children. It needs to engage adults by including experiences, amenities, and aesthetics that say "this place is for me too." Museum communication needs to include the adults in the audience and the tone needs to be one of empathy rather than instruction. The experience should include opportunities to connect with adults' play memories and to stimulate conversation with children and other adults. The ideal is to model behavior that caregivers can try—whether at the museum or elsewhere. The experience should offer chances for both active engagement and quiet observation. The museum needs to be a resource for caregivers during and after a visit, and a touchstone for parents with questions.

Kids Reinvent the Museum. The emerging vision supports a museum environment that includes substantial contributions by children, and provisions for increasing and changing those contributions over time. Children's artwork should cover the walls and the exhibits themselves should be partly made by children.

Aesthetics. Design communicates values and expectations to children and adults alike. The museum and its contents should be made from authentic and environmentally responsible materials. Natural materials and natural light are preferable. Living things add to visitors' sensory and emotional experiences. Color choices should allow children to stand out as the brightest things in the space. Exhibits should feel comfortable and appeal to adults as well as to children. Points of interest and strong patterns need to be relieved with simpler backgrounds to allow visitors to focus and rest their eyes.

Materials. The concept of "natural materials" consistently emerged as a theme during the study interviews. Beautiful, functional, reused materials not only result in a rich, aesthetically pleasing experience, but send a strong message to the visitor about the value of children. Because children are our most valuable resource, their health, environment, and future should be valued and demonstrated through the use of environmentally conscious technologies and practices that contribute to sustainability. These strategies send a tangible and visible message to parents and others committed to healthy child development.

Design for School Groups. The design should also accommodate the needs of groups visiting CCM. The new museum will include workshops, classrooms, and other spaces that can be used for class-sized groups to serve the needs of school and community groups.



Section Six: Selected Readings

The *Standards of Excellence* study drew on work from many areas of the early childhood field. The following selection of titles offer opportunities for further reading on topics related to the study:

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