



YGC

GRADUATE CAMPUS

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Importance of early childhood development





Why E.C.D. Important?

Children come into the world eager to learn. The first five years of life are a time of enormous growth of linguistic, conceptual, social, emotional, and motor competence. Right from birth a healthy child is an active participant in that growth, exploring the environment, learning to communicate, and, in relatively short order, beginning to construct ideas and theories about how things work in the surrounding world. The pace of learning, however, will depend on whether and to what extent the child's inclinations to learn encounter and engage supporting environments.

There can be no question that the environment in which a child grows up has a powerful impact on how the child develops and what the child learns. *Eager to Learn: Educating Our Preschoolers* is about the education of children ages 2 to 5. It focuses on programs provided outside the home, such as preschool, Head Start, and child care centers. As the twenty-first century begins, there can be little doubt that something approaching voluntary universal early childhood education, a feature of other wealthy industrialized nations, is also on the horizon here. Three major trends have focused public attention on children's education and care in the preschool years:

- 1.the unprecedented labor force participation of women with young children, which is creating a pressing demand for child care;
- 2.an emerging consensus among professionals and, to an ever greater extent, among parents that young children should be provided with educational experiences; and
- 3.the accumulation of convincing evidence from research that young children are more capable learners than current practices reflect, and that good educational experiences in the preschool years can have a positive impact on school learning.



The growing consensus regarding the importance of early education stands in stark contrast to the disparate system of care and education available to children in the United States in the preschool years. America's programs for preschoolers vary widely in quality, content, organization, sponsorship, source of funding, relationship to the public schools, and government regulation.

Historically, there have been two separate and at times conflicting traditions in the United States that can be encapsulated in the terms *child care* and *preschool*. A central premise of this report, one that grows directly from the research literature, is that *care and education cannot be thought of as separate*

entities in dealing with young children. Adequate care involves providing quality cognitive stimulation, rich language environments, and the facilitation of social, emotional, and motor development. Likewise, adequate education for young children can occur only in the context of good physical care and of warm affective relationships. Indeed, research suggests that secure attachment improves social and intellectual competence and the ability to exploit learning opportunities. Neither loving children nor teaching them is, in and of itself, sufficient for optimal development; thinking and feeling work in tandem.

Learning, moreover, is not a matter of simply assimilating a store of facts and skills. Children construct knowledge actively, integrating new concepts and ideas into their existing understandings. Educators have an opportunity and an obligation to facilitate this propensity to learn and to develop a receptivity to learning that will prepare children for active engagement in the learning enterprise throughout their lives. This report argues, therefore, that promoting young children's growth calls for early childhood settings (half day or full day,



public or private, child care or preschool) that support the development of the full range of capacities that will serve as a foundation for school learning. As the child is assimilated into the culture of education in a setting outside the home, early childhood programs must be sensitive and responsive to the cultural contexts that define the child's world outside the school or center, and they must build on the strengths and supports that those contexts provide.

CONTEXT OF THE REPORT AND COMMITTEE CHARGE

As Americans grapple with decisions about early childhood education that many European countries have already made, we can draw on certain advantages. We have a strong research community investigating early childhood learning and development and producing evidence on which to base the design, implementation, and evaluation of programs. And we have a tradition of experimentation and observation in preschools that gives us access to a wealth of experience in early childhood education.

The Committee on Early Childhood Pedagogy was established by the National Research Council in 1997 to study a broad range of behavioral and social science research on early learning and development and to explore the implications of that research for the education and care of young children ages 2 to 5. More specifically, the committee was asked to undertake the following:

- Review and synthesize theory, research, and applications in the social, behavioral, and biological sciences that contribute to our understanding of early childhood pedagogy.
- Review the literature and synthesize the research on early childhood pedagogy.
- Draw out the major policy implications of the research findings.

- Review research concerning special populations, such as children living in poverty, children with limited English proficiency, or children with disabilities, and highlight early childhood education practices that enhance the development of these children.

- Produce a coherent distillation of the knowledge base and develop its implications for practice in early childhood education programs, the training of teachers and child care professionals, and future research directions.

The study was carried out at the request of the U.S. Department of Education's Office of Educational Research and Improvement (Early Childhood Institute) and the Office of Special Education Programs, the Spencer Foundation, and the Foundation for Child Development. An important motivation for sponsors of the study is to help public discussion of these issues move away from ideology and toward evidence.



so that educators, parents, and policy makers will be able to make better decisions about programs for the education and care of young children

In accordance with the charge to the committee, this report focuses primarily on research and practice of relevance to programs for young children that take place outside the home, especially center-based programs



Yet it is important to underscore the point that children's learning and development are strongly influenced by myriad family factors, including parental interaction styles and family aspirations and expectations for achievement. It is also important to note that many of the committee's findings, especially those on children's learning and development, are likely to apply to in-home settings and to parents who care for their own children, and they should also be of interest to family literacy and two-generation programs.

NEW UNDERSTANDINGS OF EARLY CHILDHOOD DEVELOPMENT AND PEDAGOGY

Current conceptions of early childhood development and pedagogy are built on a century of research and experience. Many of the theoretical perspectives that have held sway during that period have been incorporated in some form into early childhood practice..



These include the “behaviorist” view of the role of positive reinforcement in behavior and learning, as well as the focus on children's affective-social development—an influence of Freudian theory

A more recent (1970s) influence on preschool practice comes from Piagetian theory, which emphasizes stages of development that are systemically defined. From Piaget's perspective, the emerging capacities of the preschool (or "preoperational") period involve the development of symbolic abilities: language, imitation, symbolic play, and drawing. While much learning is involved, it takes place in the here and now and focuses largely on the perceptible.

More recent research has led many to reinterpret the stage theorists' views; there is strong evidence that children, when they have accumulated substantial knowledge, have the ability to abstract well beyond what is ordinarily observed. Indeed, the striking feature of modern research is that it describes unexpected competencies in young children, key features of which appear to be universal.

These data focus attention on the child's exposure to learning opportunities, calling into question simplistic conceptualizations of developmentally appropriate practice that do not recognize the newly understood competencies of very young children, and they highlight the importance of individual differences in children, their past experiences, and their present contexts

Recent research on cognitive development also emphasizes the role a supportive context can play in strengthening and supporting learning in a particular domain. Indeed, techniques that provide a window into the developing brain allow us to see that stimulation from the environment changes the very physiology of the brain, interlocking nature and nurture.



Research from a variety of theoretical perspectives suggests that a defining feature of a supportive environment is a responsible and responsive adult. Parents, teachers, and caregivers promote development when they create learning experiences that build on and extend the child's competence—experiences that are challenging, but within reach. To do so, these adults must be sensitive to individual and developmental characteristics of the child.

VARIATION AMONG CHILDREN

Developmental trends occur in a similar fashion for all children. This does not, however, imply uniformity. On the contrary, individual differences due to genetic and experiential variations and differing cultural and social contexts have strong influences on development..



The notion of *lock stepped* development in children is not useful; the potential of human development interacts with diversity among individuals, available resources, and the goals and preferred interaction patterns of communities in a way that links the biological and the social in the construction of diverse developmental pathways

Children present themselves to preschool teachers or caregivers with many differences in their cognitive, social, physical, and motor skills. These differences are associated with both “functional” characteristics—such as temperament, learning style, and motivation—and “status” characteristics—including gender, race, ethnicity, and social class..

Data on children as they enter kindergarten suggest that there are significant differences in many aspects of development by the time children reach the schoolhouse door.

Resources (like books and audio recordings) and activities (book reading, story telling, verbal interaction) to which children of higher socioeconomic status (SES) are typically exposed are strong correlates of many aspects of cognitive development, and SES is correlated with social and some forms of physical development as well

QUALITY IN EDUCATION AND CARE

The issue of quality in early childhood education and care has many dimensions, including political and social dimensions, not all of which lend themselves to research and analysis. Research can, however, inform views of best practice by providing information about the consequences of program features and of curriculum and pedagogy for young children's learning, development, and well-being.

A number of distinct, but overlapping, research literatures provide relevant insights. Several decades of research have been conducted on the effects of a wide range of preschool programs on children's learning and development. This research includes experimental comparisons of carefully specified alternative approaches; experimental and quasi-experimental studies of the effects of "model" programs, Head Start, and public preschool programs on children in poverty;



studies relying on “natural variation” among child care programs to examine the effects of program features and quality on the learning and development of children from a broad cross-section of society; studies of programs for English-language learners; and descriptions of exemplary programs in other countries. These literatures provide insight into important components of the quality of preschool programs,

one of which is support for cognitive development. Other literatures (including research in cognitive science) focus less on the study of preschool programs and more on the study of children's development and their learning in specific cognitive domains, such as reading, mathematics, and science. These literatures also have implications for curriculum content and pedagogy.

FEATURES OF QUALITY PROGRAMS

There are a number of broadly supported findings regarding components of quality preschool programs:

- *Cognitive, social-emotional, and motor development are complementary, mutually supportive areas of growth all requiring active attention in the preschool years.*

Social skills and physical dexterity influence cognitive development, just as cognition plays a role in children's social understanding and motor competence. All are therefore related to early learning and later academic achievement and are necessary domains of early childhood pedagogy.

- ***Responsive interpersonal relationships with teachers nurture young children's dispositions to learn and their emerging abilities.***

Social competence and school achievement are influenced by the quality of early teacher-child relationships, and by teachers' attentiveness to how the child approaches learning.

- ***Both class size and adult-child ratios are correlated with greater program effects.***
Low adult-child ratios are associated with more extensive teacher-child interaction, more individualization, and less restrictive and controlling teacher behavior.

Smaller group size has been associated with more child initiations, and more opportunities for teachers to work on extending language, mediating children's social interactions, and encouraging and supporting exploration and problem solving.

- *While no single curriculum or pedagogical approach can be identified as best, children who attend well-planned, high-quality early childhood programs in which curriculum aims are specified and integrated across domains tend to learn more and are better prepared to master the complex demands of formal schooling.*

Particular findings of relevance in this regard include the following:

- ✓ Children who have a broad base of experience in domain-specific knowledge (for example, in mathematics or an area of science) move more rapidly in acquiring more complex skills.
- ✓ More extensive language development—such as a rich vocabulary and listening comprehension—is related to early literacy learning.

- ✓ Children are better prepared for school when early childhood programs expose them to a variety of classroom structures, thought processes, and discourse patterns. This does not mean adopting the methods and curriculum of the elementary school; rather it is a matter of providing children with a mix of whole class, small group, and individual interactions with teachers, the experience of discourse patterns associated with school, and such mental strategies as categorizing, memorizing, reasoning, and metacognition.

□ *Young children who are living in circumstances that place them at greater risk of school failure—including poverty, low level of maternal education, maternal depression, and other factors that can limit their access to opportunities and resources that enhance learning and development—are much more likely to succeed in school if they attend well-planned, high-quality early childhood programs.*

Many children, especially those in low-income households, are served in child care programs of such low quality that learning and



development are not enhanced and may even be jeopardized.

The importance of teacher responsiveness to children's differences, knowledge of children's learning processes and capabilities, and the multiple developmental goals that a quality preschool program must address simultaneously all point to the centrality of teacher education and preparation.

- *The professional development of teachers is related to the quality of early childhood programs, and program quality predicts developmental outcomes for children.*

Formal early childhood education and training have been linked consistently to positive caregiver behaviors. The strongest relationship is found between the number of years of education and training and the appropriateness of a teacher's classroom behavior.

- *Programs found to be highly effective in the United States and exemplary programs abroad actively engage teachers and provide high-quality supervision.* Teachers are trained and encouraged to reflect on their practice and on the responsiveness of their children to classroom activities, and to revise and plan their teaching accordingly.

CURRICULUM AND PEDAGOGY

Much of the research on young children's learning investigates cognitive development in language, mathematics, and science. Because these appear to be "privileged domains," that is, domains in which children have a natural proclivity to learn, experiment, and explore, they allow for nurturing and extending the boundaries of the learning in which children are already actively engaged. Developing and extending children's interests is particularly important in the preschool years, when attention and self-regulation are nascent abilities.



What should be learned in the preschool curriculum? In addressing this question, the committee focused largely on reading, mathematics, and science because a rich research base has provided insights in these domains suggesting that more can be learned in the preschool years than was previously understood. This does not imply, however, that many of the music, arts and crafts, and physical activities that are common in quality preschool programs are of less importance. Indeed, the committee supports the notion that it is the *whole* child that must be developed. Moreover, these activities—important in their own right—can provide opportunities for developing language, reasoning, and social skills that support learning in more academic areas.

An extensive body of research suggests the types of activity that promote emergent literacy skills. These include story reading and “dialogic reading,” providing materials for scribbling and “writing” in pretend play, participating in classroom conversation, and identifying letters and words. In mathematics and science, research indicates that children are capable of thinking that is both complex and abstract. Curricula that work with children’s emergent understandings and provide the concepts, knowledge,



and opportunities to extend those understandings, have been used effectively in the preschool years. When these activities operate in the child's "zone of proximal development," where learning is within reach but takes the child just beyond his or her existing ability, these curricula have been reported to be both enjoyable and educational.

While the committee does not endorse any particular curriculum, the cognitive science literature suggests principles of learning that should be incorporated into any curriculum:

- Key concepts involved in each domain of preschool learning (e.g., representational systems in early literacy, the concept of quantity in mathematics, causation in the physical world) must go hand in hand with information and skill acquisition (e.g., identifying numbers and letters and acquiring information about the natural world).
- Metacognitive skill development allows children to learn to solve problems more effectively. Curricula that encourage children to reflect, predict, question, and hypothesize (examples: How many will there be after two numbers are added? What happens next in the story? Will it sink or float?) set them on course for effective, engaged learning.

- Teaching and learning will be most effective if they engage and build on children's existing understandings

How should teaching be done in preschool? Research indicates that many teaching strategies *can* work. Good teachers acknowledge and encourage children's efforts, model and demonstrate, create challenges and support children in extending their capabilities,

and provide specific directions or instruction. All of these teaching strategies can be used in the context of play and structured activities. Effective teachers also organize the classroom environment and plan ways to pursue educational goals for each child as opportunities arise in child-initiated activities and in activities planned and initiated by the teacher.



This panoply of strategies provides a tool kit from which the teacher can select the right tool for the right task at the right time. Children need opportunities to initiate activities and follow their interests, but teachers are not passive during these initiated and directed activities. Similarly,



children should be actively engaged and responsive during teacher-initiated and directed activities. Good teachers help support the child's learning in both types of activities. They also recognize that children learn from each other and from interactions with the physical environment. Since preschool programs serve so many ends simultaneously, multiple pedagogical approaches should be expected.

ASSESSMENT IN EARLY CHILDHOOD EDUCATION

If the trend of increasing enrollments in early childhood education programs continues in this country, the use of assessments and tests as instruments of education policy and practice is also likely to increase. There is great potential in the use of assessment to support learning. The importance of building new learning on prior knowledge, the episodic course of development in any given child,



and the enormous variability among children in background and development all mean that assessment and instruction are inseparable parts of effective pedagogy. What preschool teachers do to guide and promote learning needs to be based on what each child brings to the interaction, cognitively, culturally, and developmentally. Careful assessment is even more critical to effective strategies for working with children with disabilities and special needs.



The growing sense of public responsibility for the quality of early childhood programs means that there are also external pressures to use tests and assessments for program evaluation and monitoring and for school accountability. Such high-stakes uses of assessment data for purposes external to the classroom increase the requirement for measurement validity and heighten the need for caution in interpreting results.

All assessments, and particularly assessments for accountability, must be used carefully and appropriately if they are to resolve, and not create, educational problems. Assessment of young children poses greater challenges than people generally realize. The first five years of life are a time of incredible growth and learning, but the course of development is uneven and sporadic. The status of a child's development as of any given day can change very rapidly. Consequently, assessment results—in particular, standardized test scores that reflect a given point in time—can easily misrepresent children's learning.



Few early childhood teachers or administrators are trained to understand traditional standardized tests and measurements. As a consequence, misuse is rampant, as experience with readiness tests demonstrates. Likewise, early childhood personnel are seldom offered real preparation in the development and use of alternative assessments.

Assessment itself is in a state of flux. There is widespread dissatisfaction with traditional norm-referenced standardized tests, which are based on early 20th century psychological theory. There are a number of promising new approaches to assessment, among them variations on the clinical interview and performance assessment, but the field must be described as emergent. Much more research and development are needed for a productive fusion of assessment and instruction to occur and if the potential benefits of assessment for accountability are to be fully realized.

RECOMMENDATIONS

What is now known about the potential of the early years, and of the promise of high-quality preschool programs to help realize that potential for all children, stands in stark contrast to practice in many—perhaps most—early childhood settings. In the committee's view, bringing what is known to bear on what is done in early childhood education will require efforts in four areas:

(1) professional development of teachers; (2) development of teaching materials that reflect research-based understandings of children's learning; (3) development of public policies that support—through standards and appropriate assessment, regulations, and funding—the provision of quality preschool experiences; and (4) efforts to make more recent understandings of development in the preschool years common public knowledge. The committee proposes recommendations in each of these areas.

Professional Development

At the heart of the effort to promote quality early childhood programs, from the committee's perspective, is a substantial investment in the education and training of those who work with young children.

- ❖ **Recommendation 1: Each group of children in an early child hood education and care program should be assigned a teacher who has a bachelor's degree with specialized education related to early childhood**

(e.g., developmental psychology, early child hood education, early childhood special education). Achieving this goal will require a significant public investment in the professional development of current and new teachers.

Sadly, there is a great disjunction between what is optimal pedagogically for children's learning and development and the level of preparation that currently typifies early childhood educators.

Progress toward a high-quality teaching force will require substantial public and private support and incentive systems, including innovative educational programs, scholarship and loan programs, and compensation commensurate with the expectations of college graduates.

- ❖ **Recommendation 2: Education programs for teachers should provide them with a stronger and more specific foundational knowledge of the development of children's social and affective behavior, thinking, and language.**

Few programs currently do. This foundation should be linked to teachers' knowledge of mathematics, science, linguistics, literature, etc., as well as to instructional practices for young children.

- ❖ **Recommendation 3: Teacher education programs should require mastery of information on the pedagogy of teaching preschool- aged children, including:**

- Knowledge of teaching and learning and child development and how to integrate them into practice.
- Information about how to provide rich conceptual experiences that promote growth in specific content areas, as well as particular areas of development, such as language (vocabulary) and cognition (reasoning).
- Knowledge of effective teaching strategies, including organizing the environment and routines so as to promote activities that build social-emotional relationships in the classroom.

- Knowledge of subject-matter content appropriate for preschool children and knowledge of professional standards in specific content areas.
- Knowledge of the variability among children, in terms of teaching methods and strategies that may be required, including teaching children who do not speak English, children from various economic and regional contexts, and children with identified disabilities.
- Ability to work with teams of professionals.

- Knowledge of assessment procedures (observation/performance records, work sampling, interview methods) that can be used to inform instruction.
- Appreciation of the parents' role and knowledge of methods of collaboration with parents and families.
- Appreciation of the need for appropriate strategies for accountability.



Recommendation 4: A critical component of pre service preparation should be a supervised, relevant student teaching or internship experience in which new teachers receive ongoing guidance and feedback from a qualified supervisor.

There are a number of models (e.g., National Council for Accreditation of Teacher Education) that suggest the value of this sort of supervised student teaching experience.

- ❖ **Recommendation 5: All early childhood education and child care programs should have access to a qualified supervisor of early childhood education**
Teachers should be provided with opportunities to reflect on practice with qualified supervisors.
- ❖ **Recommendation 6: Federal and state departments of education, human services, and other agencies interested in young children and their families should**

initiate programs of research and development aimed at learning more about effective preparation of early childhood teachers.

- ❖ **Recommendation 7: The committee recommends the development of demonstration schools for professional development.**

The U.S. Department of Education should collaborate with universities in developing the demonstration schools and in using them as sites for ongoing research:

- on the efficacy of various models, including pairing demonstration schools as partners with community programs, and pairing researchers and in-service teachers with exemplary community-based programs;
- to identify conditions under which the gains of mentoring, placement of pre-service teachers in demonstration schools, and supervised student teaching can be sustained once teachers move into community-based programs.

Educational Materials

- ❖ **Recommendation 8:** The committee recommends that the U.S. Department of Education, the U.S. Department of Health and Human Services, and their equivalents at the state level fund efforts to develop, design, field test, and evaluate curricula that incorporate what is known about learning and thinking in the early years, with companion assessment tools and teacher guides.



Each curriculum should emphasize what is known from research about children's thinking and learning in the area it addresses. Activities should be included that enable children with different learning styles and strengths to learn.

Each curriculum should include a companion guide for teachers that explains the teaching goals, alerts the teacher to common misconceptions, and suggests ways in which the curriculum can be used flexibly for students at different developmental levels.

In the teacher's guide, the description of methods of assessment should be linked to instructional planning so that the information acquired in the process of assessment can be used as a basis for making pedagogical decisions at the level of both the group and the individual child.

- ❖ **Recommendation 9: The committee recommends that the U.S. Department of Education and the U.S. Department of Health and Human Services support the use of effective technology, including videodiscs for preschool teachers and Internet communication groups.**

The process of early childhood education is one in which interaction between the adult/teacher and the child/student is the most critical feature. Opportunities to see curriculum and pedagogy in action are likely to promote understanding of complexity and nuance not easily communicated in the written word. Internet communication groups could provide information on curricula, results of field tests, and opportunities for teachers using a common curriculum to discuss experiences, query each other, and share ideas.

Policy

States can play a significant role in promoting program quality with respect to both teacher preparation and curriculum and pedagogy.

- ❖ **Recommendation 10: All states should develop *program* standards for early childhood programs and monitor their implementation.**

These standards should recognize the variability in the development of young children and adapt kindergarten and primary programs, as well as preschool programs, to this diversity. This means, for instance, that kindergartens must be readied for children. In some schools, this will require smaller class sizes and professional development for teachers and administrators regarding appropriate teaching practice, so that teachers can meet the needs of individual children, rather than teaching to the “average” child. The standards should outline essential components and should include, but not be limited to, the following categories:

- School-home relationships,
- Class size and teacher-student ratios,
- Specification of pedagogical goals, content, and methods,
- Assessment for instructional improvement,
- Educational requirements for early childhood educators, and
- Monitoring quality/external accountability.

- ❖ **Recommendation 11:** Because research has identified content that is appropriate and important for inclusion in early child hood programs, *content* standards should be developed and evaluated regularly to ascertain whether they adhere to current scientific understanding of children's learning.

The content standards should ensure that children have access to rich and varied opportunities to learn in areas that are now omitted from many curricula—such as phonological awareness, number concepts, methods of scientific investigation, cultural knowledge, and language.



Recommendation 12: A single career ladder for early childhood teachers, with differentiated pay levels, should be specified by each state.

This career ladder should include, at a minimum, teaching assistants (with child development associate certification), teachers (with bachelor's degrees), and supervisors.



Recommendation 13: The committee recommends that the federal government fund well-planned, high-quality center-based preschool programs for all children at high risk of school failure.

Such programs can prevent school failure and significantly enhance learning and development in ways that benefit the entire society.

The Public

- ❖ **Recommendation 14: Organizations and government bodies concerned with the education of young children should actively promote public understanding of early childhood education and care.**

Beliefs that are at odds with scientific understanding—that maturation automatically accounts for learning, for example, or that children can learn concrete skills only through drill and practice—must be challenged. Systematic and widespread public education should be undertaken to increase public awareness of the importance of providing stimulating educational experiences in the lives of all young children.

The message that the quality of children's relationships with adult teachers and child care providers is critical in preparation for elementary school should be featured prominently in communication efforts. Parents and other caregivers, as well as the public, should be the targets of such efforts.

- ❖ **Recommendation 15: Early childhood programs and centers should build alliances with parents to cultivate complementary and mutually reinforcing environments for young children at home and at the center.**

FUTURE RESEARCH NEEDS

Research on child development and education can and has influenced the development of early childhood curriculum and pedagogy. But the influences are mutual. By evaluating outcomes of early childhood programs we have come to understand more about children's development and capacities. The committee believes that continued research efforts along both these lines can expand understanding of early childhood education and care, and the ability to influence them for the better.

Research on Early Childhood Learning and Development

Although it is apparent that early experiences affect later ones, there are a number of important developmental questions to be studied regarding how, when, and which early experiences support development and learning.

- ❖ **Recommendation 16: The committee recommends a broad empirical research program to better understand:**

- The range of inputs that can contribute to supporting environments that nurture young children's eagerness to learn;
- Development of children's capacities in the variety of cognitive and socioemotional areas of importance in the preschool years, and the contexts that enhance that development;
- The components of adult-child relationships that enhance the child's development during the preschool years, and experiences affecting that development for good or for ill;

- ❑ Variation in brain development, and its implications for sensory processing, attention, and regulation, are particularly relevant;
- ❑ The implications of developmental disabilities for learning and development and effective approaches for working with children who have disabilities;
- ❑ With regard to children whose home language is not English, the age and level of native language mastery that is desirable before a second language is introduced and the trajectory of second language development.

Research on Programs, Curricula, and Assessment

- ❖ **Recommendation 17:** The next generation of research must examine more rigorously the characteristics of programs that produce beneficial outcomes for all children. In addition, research is needed on how programs can provide more helpful structures, curricula, and methods for children at high risk of educational difficulties, including children from low-income homes and communities, children whose home language is not English, and children with developmental and learning disabilities.

Research on programs for any population of children should examine such program variations as age groupings, adult-child ratios, curricula, class size, and program duration. These questions can best be answered through longitudinal studies employing random assignment. In developing and assessing curricula, new research must also continue to consider the interplay between an individual child's characteristics, the immediate contexts of the home and classroom, and the larger contexts of the formal school environment



Recommendation 18: A broad program of research and development should be undertaken to advance the state of the art of assessment in three areas: (1) classroom-based assessment to support learning (including studies of the impact of methods of instructional assessment on pedagogical technique and children's learning); (2) assessment for diagnostic purposes; and (3) assessment of program quality for accountability and other reasons of public policy

Research on Ways to Create Universal High Quality

- ❖ **Recommendation 19:** Research to fully develop and evaluate alternatives for organizing, regulating, supporting, and financing early childhood programs should be conducted to provide an empirical base for the decisions being made.

The current early childhood system is fragmented, lacks uniform standards, and provides uneven access to all children. Numerous policy choices have been proposed. This research would inform public policy decision making.

CONCLUSION

At a time when the importance of education to individual fulfillment and economic success has focused attention on the need to better prepare children for academic achievement, the research literature suggests ways to make gains toward that end. Parents are relying on child care and preschool programs in ever larger numbers.



We know that the quality of the programs in which they leave their children matters. If there is a single critical component to quality, it rests in the relationship between the child and the teacher/caregiver, and in the ability of the adult to be responsive to the child. But responsiveness extends in many directions: to the child's cognitive, social, emotional, and physical characteristics and development.

Much research still needs to be done. But from the committee's perspective, the case for a substantial investment in a high-quality system of child care and preschool on the basis of what is already known is persuasive. Moreover, the considerable lead by other developed countries in the provision of quality preschool programs suggests that it can, indeed, be done on a large scale.



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ANALYSIS



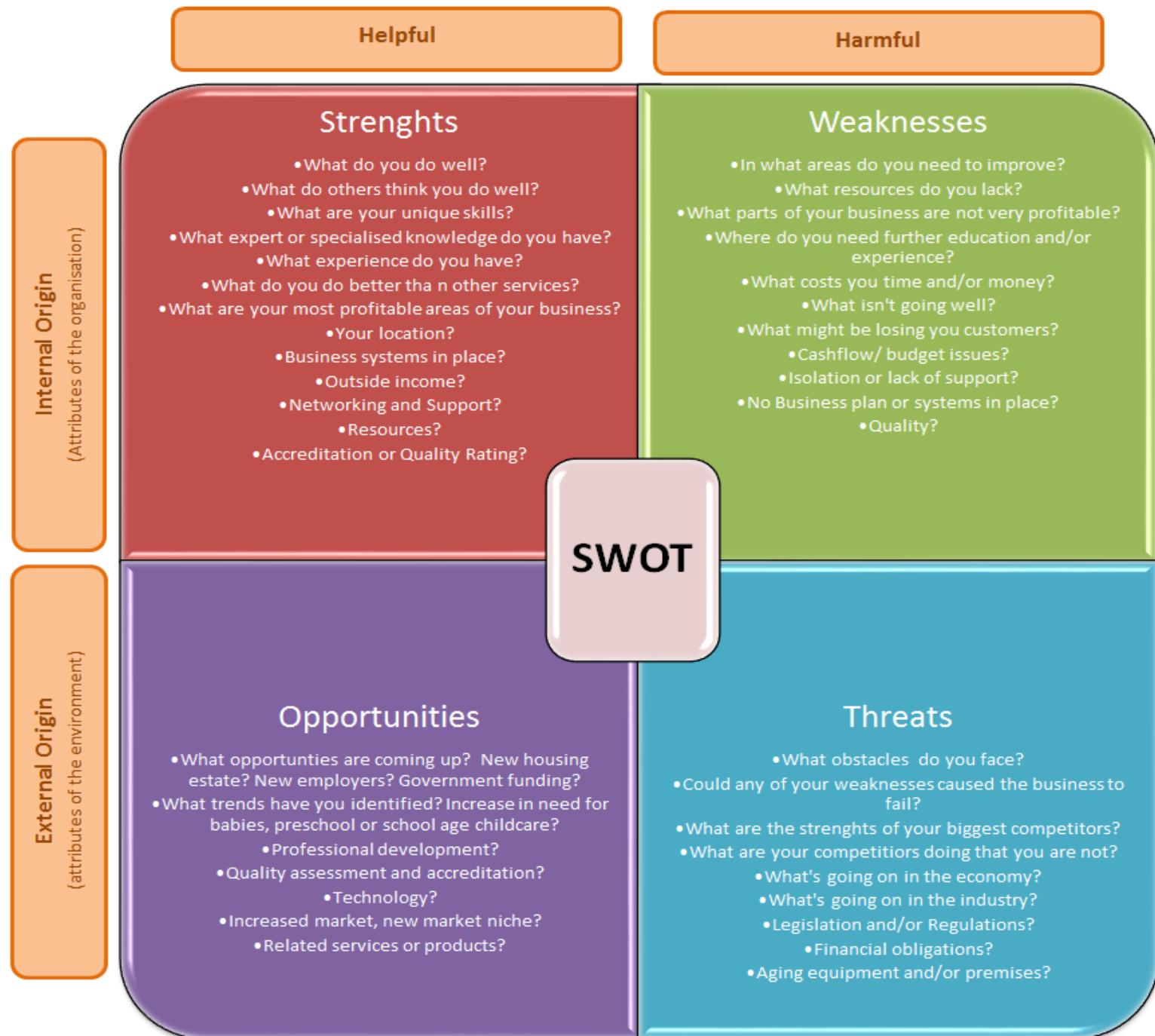
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SWOT Analysis

Strengths

- Capabilities
- Competitive advantages
- Resources, assets and people
- Experience, knowledge and data
- Financial reserves, returns
- Marketing, reach
- Innovative aspects
- Location, geographical
- Price, value and quality
- Processes, systems, it, communications
- Advantages of proposition

Weaknesses

- Lack of capabilities
- Gap in competitive strengths
- Reputation, presence and reach
- Timescales, deadlines and pressures
- Financials
- Cash flow, cash drain
- Continuity, supply chain
- Effects on core activities
- Reliability of data, plan and project
- Management cover & succession

Opportunities

- Market developments
- Industry or life style trends
- Innovation and technology development
- Global influences
- Market dimensions, horizontal, vertical
- Target markets
- Geographical import, export
- Major contracts, tactics and surprises
- Business/product development

Threats

- Political and economical effects
- legislative effects
- environmental effects
- Competitive intentions
- Market demand
- Innovation in technologies, services and ideas
- New contracts and partners
- Loss of resources
- Obstacles to be faced
- Poor management strategies
- Economic condition home, abroad



PESTEL

POLITICAL

- Several safety measures according to the user's age.
- High responsibility in ensuring the safety and also the theme of the game.
- Latest standards help in improving the rules for marketing the games produced or imported.
- Fiercely protection of their copyrights and patents. Rely on their intellectual properties.
- Piracy is a rampant in the emergent economy of China.

ECONOMICAL

- Use of Chinese factories to manufacture their products : Cheap production and undervalued currency.
- Production costs as low as possible.
- Susceptible to problems within China itself – China's up and coming working class is demanding more pay and benefits.

SOCIAL

- Children and "tweens" spending more time on the internet and social media sites.
- No time in the day for imagination play with traditional toys and games
- Children growing up faster as high Technology gadgets become common place.
- Most parents have less time to dedicate to their children so it's easier for them to buy electronic gadgets for their children than traditional toys.

TECHNOLOGICAL

- Toy companies need to innovate continuously hoping to find that next big breakthrough.
- Corporate espionage is widespread in the industry.
- Video games are a close substitute for traditional toys.



INTRODUCTION



The emotional, social and physical development of young children has a direct effect on their overall development and on the adult they will become. That is why understanding the need to invest in very young children is so important, so as to maximize their future well-being.



Neurological research shows that the early years play a key role in children's brain development.

Babies begin to learn about the world around them from a very early age – including during the prenatal, perinatal (immediately before and after birth) and postnatal period.



Children's early experiences – the bonds they form with their parents and their first learning experiences – deeply affect their future physical, cognitive, emotional and social development.

Optimizing the early years of children's lives is the best investment we can make as a society in ensuring their future success.



LIT. SURVEY



This literature review adopts international definitions of ECEC and pre-primary education, as maintained in the International Standard Classification of Education (ISCED) published by UNESCO (2006a [1997]). This review assumes that there are many different practices in nursery education, involving age range, content and quality of the education provided and implemented (Wolfendale, 1997; Buysse et al., 2001; Robinson, 2008).

- Provision for children from birth through to primary education that falls within a national regulatory framework, i.e., it has to comply with a set of rules, minimum standards and/or undergo accreditation procedures (European Commission/EACEA/ Eurydice/ Eurostat, 2014, p. 155).
- The Agency views inclusive education as a systemic approach to providing high quality education in mainstream schools that effectively meets the academic and social learning needs of all the learners from the school's local community (European Agency, 2015, p. 2).



Children can be at risk of disadvantage because of their individual circumstances or because they, or their families belong to a group which is disadvantaged in society. These children may include those with disabilities, with mental health problems, in alternative care, at risk of neglect/abuse, undocumented child migrants/asylum seekers, those whose families live in poverty or are socially disadvantaged, those whose families have a migrant and/or second language background, those whose families have limited access to services, Roma and traveller children (European Commission, 2014, p. 68).



THANK YOU