HIGHSCOPE in the DIVERSE AND INCLUSIVE CLASSROOM

Using Sign Language to Support Preschool Learning

Highly Effective Early Childhood Programs

Introducing the New Key Developmental Indicators (KDIs)
Dear Readers,

HighScope is now, and always has been, dedicated to providing you with the training and resources you need to develop a highly effective early childhood development program. In an article titled “Lessons of Highly Effective Programs,” in this issue of *ReSource*, I detail what preschool programs can do to provide every child with a high-quality preschool education. HighScope’s Perry Preschool Study has led the way in making the case that early childhood programs can contribute long-term to participants’ lives, helping them achieve greater success in school, earn more from adult employment, and commit fewer crimes, thereby providing taxpayers with a huge return on investment. But to get what we got, you’ve got to do what we did. The four key elements of our effectiveness in educating young children were (and still are) (1) staffing our program with highly qualified teachers, (2) training educators in the use of a research-validated interactive child development curriculum, like HighScope’s, (3) forming partnerships with parents in educating their children, and (4) undertaking regular observational assessment of program implementation and children’s development. The potential for such powerful effects challenges all Head Start, prekindergarten, and child care programs to strive for these high standards. It also motivates us to constantly advocate for public policies that allow and encourage all early childhood programs to meet these high standards.

As we strive to apply research findings to practice, we encounter a tremendous diversity of children, programs, and teachers. This diversity is nowhere more in evidence than in the Region of Peel, a regional municipality in southern Ontario, Canada. This issue of *ReSource* includes an article by Pat Tretjack, the early learning program specialist in the region, on “Supporting Diverse and Inclusive Classrooms.” In it, she describes how the HighScope Curriculum supports the children there in their diverse languages, customs, spiritualities, foods, holidays, family lives, and educational abilities. Only two-thirds of the population speak English as their first language. The others speak Punjabi, Chinese, Urdu, Polish — 93 distinct ethnic groups! The teachers in the L.P.C. Centres educate these diverse children using the HighScope Preschool Wheel of Learning. They support children’s active learning through supportive adult-child interactions, a materials-rich learning environment, a consistent daily routine, and regular assessment. They foster secure relationships with children and arrange the classroom and the day to support children making, carrying out, and reviewing their own plans, using materials that are accessible to them, and interacting with others. They become genuine partners with parents.

Certainly, a way of extending diversity as well as learning in the classroom is to introduce young children to sign language. HighScope early childhood specialist Kay Rush presents an excerpt from her book *Ready, Sign, Go! Using Sign Language to Promote Preschool Learning*, coming soon from the HighScope Press. Signing is no longer strictly for people who are deaf or hard of hearing. It can become another tool for communication between adults and young hearing children and contribute to their learning and development. It can be especially useful to young children with special needs and those for whom English is a second language, breaking down barriers to communication and participation, and engaging all children in active participatory learning.

As you consider the key components of highly effective early childhood programs, including professional development and training, we hope that this edition of *ReSource* contributes to your own development as an educator in your ongoing efforts to support and extend the learning of the children you serve.
Features

Lessons of Highly Effective Programs .................................................. 5
What would it take for all early childhood programs to become highly effective, with positive long-term effects on children’s development and a return to taxpayers on their investment? Evidence suggests that the answer to this question lies in four key components of high-quality education. Larry Schweinhart, PhD

Introducing the New HighScope Key Developmental Indicators (KDIs) ... 7
Highscope’s latest update to its KDIs reflects the most current information about child development and how adults can support early learning in all domains. Ann S. Epstein, PhD

Supporting Diverse and Inclusive Classrooms ............................... 9
In the multicultural and diverse Region of Peel in Canada, diverse and inclusive practices are inherent to the community’s 12 HighScope-accredited Learn.Play.Care. Child Care Centres. These practices ensure that all children participate and have successful experiences in the classroom, which reinforces a positive sense of self and builds self-confidence. Pat Tretjack

Ready, Sign, Go! ................................................................. 15
This excerpt from HighScope’s forthcoming book, Ready, Sign, Go! Using Sign Language to Promote Preschool Learning, explains how ASL can enhance the learning and development of the young hearing children in your classroom. Karen “Kay” Rush

Departments

Letter from the President ............................................................. 2
From Dr. Larry Schweinhart, HighScope President

What’s New @ HighScope ......................................................... 4
News on the foundation’s latest products and projects.

Trainers Talk ........................................................................... 18
Early childhood teachers are sometimes described as having a “phobia” about science. Here are some tips for trainers to help teachers overcome their discomfort and actively support young children’s science learning.

Training @ HighScope .............................................................. 20
New Online COR improvements!
The latest releases (R8 and R9) of the OnlineCOR offer users a range of improvements and additional features. Among the highlights are new resources for administrators, including a new Resource section with links to forums, OnlineCOR user manuals, alignments of the Preschool COR and the HighScope Curriculum to state early learning standards, articles related to assessment, and more. Updates to administrator reports (For Premium Plan Users) include a new option that makes it easier to select your state to view how the scores from the Preschool COR align to your state’s early learning standards. A new search feature for administrators also makes it easier to search for children and other OnlineCOR users by name.

For all OnlineCOR users, the new updates offer:
- More flexibility for reporting periods
- Updated Child Information to meet the latest standards for state and federal reporting
- Revised OSEP tables
- Easier navigation between administrator and teacher screens
- More flexibility when assigning children to different sites
- Expanded Growth Profile Report options

For more information, visit OnlineCOR.net.

New Scoring Level Added to PreSchool COR
HighScope has introduced a new scoring level for the Preschool Child Observation Record (COR). Based on research we have conducted over the last year, and in response to customer feedback, we will have a Level 0 option available for the Preschool COR in addition to the existing Levels 1–5. This feature has been research-validated and will be especially helpful when assessing children who have not yet met Level 1, and for children with special needs. For more detailed information about this new Level 0, and the research supporting it, please go to highscope.org and click on Assessment.

Extensions Archive & Web Clips Free to Members!
The HighScope Membership Association offers a number of benefits to those who join, including access to the Extensions online archive and a full library of HighScope Web Clips, a collection of video scenes of the HighScope approach in action. In addition to the current issue of Extensions, an extensive archive representing over 20 years of past issues is available to members, searchable by topic or author and including Trainer-to-Trainer workshop plans that have never been republished elsewhere. Also available to members only, a full library of Web Clips provides actual footage of HighScope classrooms with scenes of adult-child interactions, conflict resolution, small- and large-group times, content-specific activities (e.g., math, language and literacy), and much more. These clips can be used as a tool in staff development and/or as a source of ideas and strategies for teaching practice. To join the HighScope Membership Association, visit highscope.org and go to the What’s New box; then, click on Join the New HighScope Membership Association.

Need a jump-start on your plans for large- or small-group times this winter? HighScope’s Ideas From the Field can help!

Ideas From the Field is a place where real teachers share their favorite activities for large- and small-group times. We choose the most innovative plans teachers send us and then post them in an easy-to-follow format on HighScope’s Forums, so that you can quickly go from looking at an activity online to adapting it for your classroom. Ideas From the Field is updated on a regular basis, so be sure to check back often to see a fresh idea for a teacher-tested activity that you can use in your classroom (see our latest Ideas From the Field by going to our home page at highscope.org and clicking on eTools).

If you are one of those lucky teachers who is simply overflowing with great ideas for large- or small-group times, we’d like to offer you the chance to share your favorite plan with your HighScope colleagues. If your idea is chosen, it will be posted on Ideas From the Field. You’ll be sure to hear “Wow, why didn’t I think of that?” from your colleagues. You’ll also receive a $15.00 gift certificate to HighScope’s online store. For forms and more information, go to Share Your Large- or Small-Group Activities.
On November 18, 2009, Arne Duncan became the first United States Secretary of Education to speak at the annual conference of the National Association for the Education of Young Children (Duncan, 2009). He proclaimed that “Early learning is on the cusp today of transformational reform.” He elaborated, “It is time to transform early learning from a system of uneven quality and access into a system that truly and consistently prepares children for success in school and in life.”

While some early childhood development programs have been found to contribute effectively to children’s development of readiness for school (Barnett, 2008), a few have been shown by research studies to contribute to children’s development with an intensity that leads to lifetime effects on school success, adult economic productivity, and crime reduction and resultant economic return on investment far greater than the original investment. These highly effective models, which were each the subject of rigorous research studies, include the HighScope Perry Preschool program (Schweinhart et al., 2005), the Abecedarian-enhanced child care program (Campbell et al., 2002), and the Chicago Child-Parent Centers program (Reynolds et al., 2001). Regrettably, most recent studies of Head Start and state preschool programs have found only modest short-term effects on children’s literacy and social skills, and parent activities, casting doubt on whether these programs will have worthwhile long-term effects or return on investment (e.g., US Department of Health and Human Services, 2005; 2010). for now, scrutiny of the characteristics of the highly effective programs that have identified long-term effects and return on investment offers guidance on how early childhood programs should be structured and what processes they should follow to achieve the higher standards.

As I noted in testimony before the United States Senate Health, Education, Labor and Pensions Committee on May 25, 2010, “We have a rare opportunity to better recognize and treat highly effective early childhood programs in schools and community agencies as a genuine investment with enormous returns to taxpayers” (Schweinhart, 2010).

Key Components of Highly Effective Programs
All three of the programs identified as highly effective focused on improving the development of young children living in poverty, and at least two of them validated a curriculum, had well-trained and qualified teachers, engaged in outreach to support parent involvement, and conducted regular assessment of program implementation and children’s development.

Curriculum. Each of the three programs used a systematic curriculum that was validated by the research evidence found in the studies themselves. The Perry Preschool program used the HighScope Curriculum, in which children are recognized and treated as active learners who learn best from activities that they plan,
The Abecedarian program presented the Learning Games child development activities (Sparling & Lewis, 1981) to children up to age three and used several standard preschool curricula focusing on communication skills after age three. The Child-Parent Centers used a literacy curriculum and a specific learning model in other subject areas. The Centers focused on a variety of activities, including individualized and interactive learning, small-group activities, and frequent teacher feedback.

**Teachers.** Perry Preschool and Child-Parent Centers teachers were state-certified teachers, while Abecedarian teaching staff had a range of educational backgrounds. Perry Preschool teachers were state-certified in elementary and special education. Child-Parent Centers were staffed by early childhood-certified teachers and aides. Abecedarian project teaching staff had professional backgrounds ranging from paraprofessional to graduate degrees in early childhood education, all with extensive experience working with young children.

**Outreach to Parents.** Perry and Chicago engaged in extensive outreach to parents, and Abecedarian engaged parents in child care. The Perry program involved parents as partners with teachers through weekly home visits to discuss their children’s developmental progress, and occasional group activities. The Chicago Child-Parent Centers required parent participation that involved volunteering in the program a half-day each week. The Abecedarian project required parents to support their children in full-day, full-year child care throughout early childhood.

**Assessment.** All three highly effective programs included extensive assessment of children’s development. While they did not engage in systematic data collection on pro-

**Introducing the New HighScope Key Developmental Indicators (KDIs)**

by Ann S. Epstein, PhD

HighScope has always been a leader in early childhood education. In this tradition, we are excited to announce the latest update in the HighScope Preschool Key Developmental Indicators (KDIs), the content component of our curriculum. The new KDIs are based on the latest information about child development and how adults can support early learning in all domains. They can be easily aligned with state standards and other program requirements.

**What’s the same? What’s new?**

HighScope’s validated educational approach — active learning, adult-child interaction, the learning environment, the daily routine, child observation, and program planning — remains the same. The adult scaffolding strategies to support children’s learning are also valid, and teachers can continue to use them with confidence. The eight content areas for organizing the curriculum are unchanged as well, and reflect our continued commitment to comprehensive and meaningful learning. However, the new KDIs within each area will help adults broaden their child development focus and be more intentional in their teaching. There is much continuity with the former KDIs, but with enhanced attention to the content young children need to succeed in school and in life. Moreover, the new KDIs are more consistent with the in-depth materials HighScope has developed in specific content areas such as literacy, mathematics, science, social-emotional development, physical development, and the creative arts.

The new HighScope Preschool KDIs (opposite) fall into eight content areas: Approaches to Learning; Social and Emotional Development; Physical Development and Health; Language, Literacy, and Communication; Mathematics; Creative Arts; Science and Technology; and Social Studies. As always, HighScope will continue to develop materials and offer training to support practitioners as they implement the curriculum’s teaching practices and educational content.

For more information, visit our website:

www.highscope.org

Ann S. Epstein, PhD, is HighScope’s Senior Director of Curriculum Development.
HighScope Preschool Curriculum Content — Key Developmental Indicators (KDIs)

A. Approaches to Learning
1. Initiative: Children demonstrate initiative as they explore their world.
2. Planning: Children make plans and follow through on their intentions.
3. Engagement: Children focus on activities that interest them.
4. Problem solving: Children solve problems encountered in play.
5. Use of resources: Children gather information and formulate ideas about their world.
6. Reflection: Children reflect on their experiences.

B. Social and Emotional Development
7. Self-identity: Children have a positive self-identity.
8. Sense of competence: Children feel they are competent.
9. Emotions: Children recognize, label, and regulate their feelings.
10. Empathy: Children demonstrate empathy toward others.
11. Community: Children participate in the community of the classroom.
12. Cooperative play: Children engage in cooperative play.
13. Moral development: Children develop an internal sense of right and wrong.

C. Physical Development and Health
15. Gross-motor skills: Children demonstrate strength, flexibility, balance, and timing in using their large muscles.
16. Fine-motor skills: Children demonstrate dexterity and hand-eye coordination in using their small muscles.
17. Body awareness: Children know about their bodies and how to navigate them in space.
18. Personal care: Children carry out personal care routines on their own.

D. Language, Literacy, and Communication
22. Vocabulary: Children understand and use a variety of words and phrases.
23. Phonological awareness: Children identify distinct sounds in spoken language.
25. Reading: Children read for pleasure and information.
27. Book knowledge: Children demonstrate knowledge about books.
28. Writing: Children write for many different purposes.
29. ELL/Dual language acquisition: (If applicable) Children use English and their home language(s) (including sign language).

E. Mathematics
30. Number words and symbols: Children recognize and use number words and symbols.
32. Part-whole relationships: Children combine and separate quantities of objects.
33. Shapes: Children identify, name, and describe shapes.
34. Spatial awareness: Children recognize spatial relationships among people and objects.
35. Measuring: Children measure to describe, compare, and order things.
36. Unit: Children understand and use the concept of unit.
37. Patterns: Children identify, describe, copy, complete, and create patterns.
38. Data analysis: Children use information about quantity to draw conclusions, make decisions, and solve problems.

F. Creative Arts
39. Art: Children express and represent what they observe, think, imagine, and feel through two- and three-dimensional art.
40. Music: Children express and represent what they observe, think, imagine, and feel through music.
41. Movement: Children express and represent what they observe, think, imagine, and feel through movement.
42. Pretend play: Children express and represent what they observe, think, imagine, and feel through pretend play.
43. Appreciating the arts: Children appreciate the creative arts.

G. Science and Technology
44. Observing: Children observe the materials and processes in their environment.
45. Classifying: Children classify materials, actions, people, and events.
46. Experimenting: Children experiment to test their ideas.
47. Predicting: Children predict what they expect will happen.
48. Drawing conclusions: Children draw conclusions based on their experiences and observations.
49. Communicating ideas: Children communicate their ideas about the characteristics of things and how they work.
50. Natural and physical world: Children gather knowledge about the natural and physical world.
51. Tools and technology: Children explore and use tools and technology.

H. Social Studies
52. Diversity: Children understand that people have diverse characteristics, interests, and abilities.
53. Community roles: Children recognize that people have different roles and functions in the community.
54. Decision making: Children participate in making classroom decisions.
55. Geography: Children recognize and interpret features and locations in their environment.
56. History: Children understand past, present, and future.
57. Ecology: Children understand the importance of taking care of their environment.

Language, Literacy, and Communication KDIs 21–29 may be used for the child’s home language(s) as well as English. KDI 30 refers specifically to ELL/Dual language acquisition.
gram implementation, the fact that they were demonstration programs with visiting educators guaranteed that their program implementation was subjected to close scrutiny by these visitors. All three of the studies collected extensive data on children’s intellectual development during their early childhood years. In the Perry and Abecedarian projects, the program leader was also the research leader, thereby providing the program teaching staff with considerable focus and feedback regarding the success of their teaching efforts in improving children’s intellectual and social performance.

Findings
All three of these studies found large short-term effects on intellectual performance; later effects on school achievement, placement on grade and not in special education; and high school graduation (Schweinhart & Fulcher-Dawson, 2009). Two of them found reductions in criminal arrests, and two others found reductions in teen pregnancy. One of them found improved adult employment rates and earnings, and another found improved college enrollment. All three of them found substantial returns that far exceeded on taxpayers’ investments.

Applications
What would it take for all early childhood programs to become highly effective, that is, to improve children’s development, have long-term effects, and give taxpayers a return on their investment? The evidence presented here suggests that they would all need a validated curriculum, qualified and/or well-supervised teachers, outreach to parents, and regular assessment of program implementation and children’s development. What stands in the way of achieving these characteristics in Head Start programs, school prekindergarten programs, and child care programs?

Few existing early childhood programs use validated educational models whose curriculum has been scientifically proven to be effective in achieving educational goals, partly because so few early childhood educational models have been subjected to the empirical study that would provide evidence of their effectiveness. Even fewer consider systematically collecting and analyzing data to validate the curricula that they are using.

Regarding teacher qualifications, only 33 percent of center teachers and 17 percent of family child care providers have a bachelor’s degree or more (Burton et al., 2002). Lack of credentials follows from low pay: The average hourly wage for preschool teachers in the United States (excluding those in the field of special education) in 2008 was only $11.48 (Bureau of Labor Statistics, 2009). The gap between professional recommendations and government regulations regarding child care in the US is wide. The National Association of Child Care Resource and Referral Agencies (NACCRRA) (2009) recommends that child care center directors have at least a bachelor’s degree and that child care center teachers have at least a Child Development Associate credential or associate’s degree in early childhood education, but only a handful of states meet either of these requirements. NACCRRA also recommends that states require teachers to get at least 24 hours of in-service training a year and five states do, but 14 states require no more than 10 hours of training a year. As long as the government expects so little of child care teachers, it is difficult for child care directors to insist that more training and professional development are necessary.

Everyone who takes care of young children can and should somehow make use of the scientifically established lessons of early childhood education.

Few early childhood programs fully engage parents as genuine partners in their children’s education through frequent home visits, ongoing communication, and involvement in school activities, as the Perry and Chicago projects did. Head Start, although relatively strong on parent involvement, requires only two home visits a year.

Publicly funded preschool programs do have a perennial concern for regular assessment of program implementation and children’s development. Head Start maintains a schedule of program visits every three years by an evaluation team, now based on the Program Review Instrument for Systems Review, the PRISM. Assessment of children’s development is required for teacher use, but Head Start’s effort to collect child outcomes data nationally, dubbed the National Reporting System, was hastily conceived without much input from program directors or other early childhood leaders and was eventually terminated by Congress pending further study. Standards for children’s learning are widespread in state preschool programs, and assessment based on these standards is often required.

Publicly funded preschool programs like Head Start and state preschool programs need to upgrade their performance, particularly on the four characteristics common to highly effective programs: qualified teachers, validated curriculum, outreach to parents, and regular assessment of program implementation and children’s development. These improvements are within their reach. What is required is the political leadership at local, state, and federal levels to hold to this vision in funding and program policies to see them through.

Child care programs are in a more challenging situation because their public and private funding and resources are generally insufficient to achieve the broad standards outlined here. Clearly, child care should never harm children; ideally, child care objectives overlap and coincide with early childhood education objectives. But without an unforeseeable massive shift in social priorities, immediate child care objectives must be more modest — less-than-ideal caregiver qualifications, curriculum articulation, partnerships with parents, and program quality rating but probably not child development assessment. To set the levels, we need to put stakes in the ground at somewhat arbitrary balancing points between the tolerable and the desirable. Even as the National Institute for Early Education Research (NIEER) early education standards review has had some influence by way of news reporting on state prekindergarten standards, the NACCRRA child care standards review appears to have gotten little traction. That is partly because state departments of education recognize to some extent that preschool programs must aspire to quality to contribute to children’s development, while state social services departments have no legislative mandate to act on their recognition that child care programs must have a certain level of quality in order to contribute to children’s development.

Perhaps the lessons of highly effective programs now can only be applied to child care programs in broader form: that everyone who takes care of young children can and should somehow make use of the scientifically established lessons of early childhood education. Child care teachers need to be qualified, but directors must do the best they can in a market that does not pay for certified teachers. It is a

Continued on page 22
One are the days when people lived in small villages where everyone shared the same beliefs, values, and practices. We are now able to travel the world in a matter of days, and we can communicate instantly with people all over the world as part of a diverse global community. Increasingly, our own communities consist of individuals and groups who represent a wide range of experiences, abilities, and backgrounds. This diversity is reflected in our classrooms: children's cultural, racial, and ethnic backgrounds; their family structures and socioeconomic backgrounds; the languages they speak; their physical differences and learning abilities; and a host of other individual characteristics that make each child unique.

If all children are going to reach their full potential, teachers must be sensitive to and familiar with the diverse needs of the children and families they serve, and must be cognizant of using inclusive and developmentally appropriate practices on an ongoing basis in their classrooms. Research about including children from multicultural backgrounds, children from homes in which English is not the primary language, and children with disabilities indicates the importance of several interrelated educational strategies, including developmentally appropriate practice; an inclusive curriculum that emphasizes children’s strengths yet accommodates their needs; and appropriate physical environment and materials (Rodriguez, 1999). Indeed, inclusive practices are inherent to high-quality early childhood experiences, and the 12 Learn.Play.Care. (L.P.C.) Child Care Centres operated by the Regional Government of the Municipality of Peel are shining examples of best practices using the HighScope Curriculum in its toddler, preschool, and kindergarten classrooms. The Peel Region L.P.C. Child Care Centres’ classroom staff are Registered Early Childhood Educators (RECE) and are certified HighScope preschool teachers. All 12 L.P.C. Child Care Centres are accredited HighScope centres where children are considered to be active learners who develop understandings about the world through active involvement with people, materials, events, and ideas. Elements of the HighScope approach that make it so effective in a diverse classroom include supportive adult-child interactions in which all children are expected to succeed; opportunities for children to make choices based on their individual interests and developmental levels; a consistent but flexible daily routine to give children a sense of control; and an organized learning environment that promotes independence. These elements are designed to provide support for each child at his or her developmental level and to build initiative and self-confidence.

The Region of Peel’s Diverse Community

The Region of Peel, just west of Toronto, Canada, is an extremely multicultural community comprised of families who come from all over the world with unique “ways of being” related to language, customs, spirituality, food, holidays, family life, and education. According
to the most recent Statistics Canada website report, almost half of the Region’s population (48.63 percent) are immigrants to Canada, and this immigration trend remains consistent to date. Peel Region has one of the highest percentages of visible minorities in Canada, and English is a first language for approximately only two-thirds of the region’s population. Of the remaining third, the most predominant language is Punjabi, followed by other languages including Chinese, Urdu, Polish, Spanish, Tagalog, Italian, Vietnamese, Arabic, Tamil, and many more. In fact, Peel Region is home to more than 93 distinct ethnic groups and 60 different languages (www.peelregion.ca/social-services/immigrs-stat.htm). Serving a community with such a broad range of competing needs has been a challenge which the Region of Peel has met by establishing the Human Services Integrated Service Model. All families who require services start at a single point of access where staff work hard to address their requirements for assistance in everything from housing, social services, language classes, employment supports, medical care, and child care services.

Peel Region has one of the highest percentages of visible minorities in Canada, and English is a first language for approximately only two-thirds of the region’s population.

The classrooms in the Region of Peel Learn.Play.Care Child Care Centres are “diverse” in terms of culture as well as other differences including racial background, sexual orientation, religious beliefs, developmental levels, and physical and verbal abilities. “Inclusion” refers to a thoughtful and deliberate commitment to include all members of our community; all children are welcome regardless of ethnicity, race, culture, religion, family structure, or abilities. At Peel, we believe that the concept of “developmentally appropriate” is based not only on a child’s age but also on his or her individual abilities. Children who have identified special needs are fully integrated into the classroom; the child and classroom teacher receive extra support from an on staff Resource Teacher and community partners as needed for ongoing success. Classroom teachers are involved with Individual Education Plans (IEPs), which have been designed specifically to support the goals established for children who have been designated as requiring special services to reach their full potential.

Implementing HighScope

In the Region of Peel L.P.C. Child Care Centres, we believe that a successful educational curriculum is one that centers on the child and integrates the learning experiences and materials according to the motivating interests and needs of the child. The HighScope Preschool Wheel of Learning is designed with children’s “initiative” at the hub, which supports the concept of children as active exploratory learners who are ready and interested in learning. The HighScope Key Developmental Indicators (KDs) are child development statements (see p. 7) that are used to design the curriculum around the child’s interests and to record the child’s development. To do this successfully, a teacher must first complete ongoing observations of each child, and collect anecdotal notes and samples of each child’s work to create a profile using the HighScope Child Observation Record (COR). It is also important that teachers have close communication with parents to assess the child’s abilities at home as well as at the center. This base of data will help the teacher ascertain what the child is already able to do successfully and where to begin scaffolding new learning. Teachers, administrators, and support staff have regular conversations with parents to identify if language or culture has created barriers or gaps that must be planned for at school. The teachers working with children who are learning English identify the importance of consulting parents about home language. In order for children to feel secure, they must be able to communicate their basic human needs and wants for self-care and sustenance to the teacher. Teachers will collect key words from parents for toileting, dressing, eating, and drinking. They will also use nonverbal strategies such as pointing and body language, as well as a series of picture cards, to communicate with children. On occasion, they are able to recruit other staff or one of the other children to act as a translator. These teachers also have experience working with children of differing levels of ability, and they incorporate inclusive strategies for success by offering many choices of materials and by using open-ended materials that can be used in ways and at levels that make sense to the child. Teachers recognize the need to adapt and individualize expectations for children, allowing for unique needs (e.g., children with physical limitations, children who are unable to sit still, children who need a comfort item or a squishing toy during less active times). Through this practice, teachers keep the child at the center of the curriculum and scaffold the subject matter in developmentally appropriate ways to build challenge and success for each child.

Elements of the HighScope approach that make it so effective in a diverse classroom include supportive adult-child interactions. Teachers establish authentic relationships with children and learn and play as partners.
Diverse and Inclusive Practices

In the Region of Peel Learn.Play.Care. Child Care Centres, teachers implement practices that recognize both the similarities and differences in children. As educators we must acknowledge similarities in milestone achievement to create developmentally appropriate curriculum for the children we serve. However, we must also recognize that not all children follow the same schedule or timeline for development. Growth and maturity can be affected by temperament, heredity, and the child’s specific genetic program, all of which influence abilities or disabilities that directly impact a child’s academic progress. Other factors that can affect a child’s rate of development include prenatal indicators such as malnutrition, parental stress or substance abuse; the level of care provided by family in the home environment (which can range from basic custodial care to highly stimulating development support); and cultural expectations. Indeed, children with different backgrounds may be at varying levels of development depending on their culture’s beliefs, practices, educational philosophies, and parenting styles (Kruse, 2006). Some cultures, for example, put tremendous emphasis on independence at a young age, while other cultures encourage children to accept basic caregiver support well into the preschool years; this adversely affects the rate of development for self-care, including dressing, toileting, and feeding.

HighScope educational model, L.P.C. Child Care Centres recognize child-initiated active learning as the most important ingredient of a high-quality early childhood program. Child-initiated activities, “acknowledge both the developmental limits of young children and their potential for learning” (Epstein, 2007, p. 23). Teachers support each child’s development by providing interesting experiences and challenges that promote problem solving, persistence, decision making, and cooperation in a social and educational atmosphere.

The Daily Routine

Each day consists of designated periods of time when children make decisions about the work they will do (child-initiated), and teachers initiate activities based on children’s interests and designed to extend their learning. Each part of the HighScope daily routine provides teachers with opportunities to engage in diverse and inclusive strategies. At small-group time, for example, teachers initiate activities based on curriculum content that incorporate the elements of active learning and are supportive of children’s interests, developmental needs, and IEP goals. Blowing bubbles with wands, straws, or paper cups not only supports learning in language and literacy, movement, and space, it also promotes IEP objectives related to oral motor skills or bilabial consonants (e.g., “pop,” “bubbles”) (Dowling & Mitchell, 2007). Small-group time also provides opportunities for second language learners to hear language in the context of an authentic activity; thus, they are more likely to absorb the meaning of new words and phrases than they would in a direct-instruction situation (Kruse, 2006). Helping children label their activities during planning and recall is another support strategy that can be used by teachers to help children feel secure in making choices and carrying out their plans. Children who do not have the words to describe their plan, for example, can use props such as planning boards to support this process. At work time and during large-group times, teachers can offer picture representations of available choices (e.g., classroom jobs, partners, songs) to children with hearing loss, and concrete objects to children with visual impairments (e.g., a plastic spider to represent the spider song). Using sign language in the classroom can be beneficial not only for children with special needs and those who are second language learners but for all the children in your classroom! (see related article, p. 15).

Consistent with the HighScope educational model, L.P.C. Child Care Centres recognize child-initiated active learning as one of the most important ingredients of high-quality early childhood programs.

The teachers in the Region of Peel L.P.C. Child Care Centres take all of these factors into consideration when creating program plans for the whole group as well as individuals in the group. Teachers plan the daily routine around the children’s interests, using HighScope’s KIDs to guide the design of instructional activities, which strengthen each child’s emerging intellectual, physical, social, and emotional abilities. As noted above, consistent with the

Preschoolers’ Emerging Awareness of Difference

At two and a half years, children are certainly becoming more aware of the people around them. They begin to develop beyond parallel play and occasionally participate in more cooperative play. They are also becoming more aware of the appearances of others, as well as differences in choices and other behaviors. It is natural for them to be curious about why these differences exist. At this young age children are just beginning to form a concept of who they are. This is an important place to begin as we talk about multicultural education.

Children must develop an understanding of who they are before they can begin to understand how they are both similar to and different from others. It is a type of “classification” problem. Activities for two- and a half-year-olds should focus on letting them develop healthy self-concepts. A classroom can help children feel safe, secure, and self-confident. When children feel positive about themselves and their surroundings they are more likely to be comfortable reaching out to others. It’s the idea of “friend-worthiness” that is really the first step in multicultural learning (i.e., “I see myself as a good person that others would like to know”). In a safe and secure environment, children are also more willing to trust the process of getting to know others.

The kinds of activities that we plan based on many of the key experiences lay the foundation for healthy self-concepts and positive social learning experiences. To help young children begin to learn about themselves and others, here are some of the experiences you might encourage throughout the day:

- **Expressing initiative**
  Provide as many opportunities for the children to make choices throughout the day so they become confident in their abilities.

- **Distinguishing “me” from others**
  Have hand-held or full-length mirrors in the room so children can see themselves.

- **Forming an attachment to a primary caregiver**
  Implement a primary caregiving system so children can learn to trust others.

- **Showing empathy towards the feelings and needs of others**
  Acknowledge children when they express emotions, including strong emotions (“I see from your loud voice and clenched hands that you are very upset, Angelina”). Acknowledge children’s empathic actions, for example, when they get band-aids for a hurt friend or bring a soft animal if someone is crying.

- **Exploring and noticing how things are the same or different**
  Draw attention to things so children begin to start categorizing and grouping things. For example, “We all have peaches on our plate for lunch!” or, “Michael and Shelby both have blankets for naptime today but one is blue and the other is green!”

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Creating a Supportive Learning Environment

Relationships

Erik Erikson’s research on Psychoanalytic Stages of Development (Fogel, 2001) highlights a young child’s need for reliable and positive relationships in order to develop the basic needs of trust and autonomy. An inclusive classroom offers children supportive and positive interactions with others and serves to promote initiative and social understanding. Supportive adult-child interactions are a key component of the HighScope Wheel of Learning and an essential element of high-quality programs. In HighScope settings, teachers and children move through the daily routine as “partners,” sharing control of the learning process. In supporting children, teachers focus on children’s strengths and interests, form authentic relationships with children, and support children’s play. They also teach children to solve problems by talking and trying solutions, and they use encouragement instead of praise in acknowledging children’s efforts.

Teachers and children engage in conversations about their families, interests, and backgrounds. Teachers recognize each child as unique, and acknowledge and support their efforts and abilities. In communicating with a child who has a speech delay, for example, a teacher will respect the child’s mode of communication. That is, if a child speaks in one or two-word phrases, the teachers will respond in abbreviated sentences (e.g., saying “Up?”) to ask if the child wants to be picked up (Dowling & Mitchell, 2007). Teachers also consider cultural communication patterns that may influence a child’s interactions. For example, children from certain cultures are not comfortable making eye contact when conversing with adults, as it could be construed as a sign of disrespect. Teachers need to be knowledgeable about these kinds of differences in order to avoid misunderstandings and engage in successful interactions with children.

Inclusive practices are used by teachers to ensure that all children can participate and have successful experiences with materials and satisfying social interactions with others, which reinforces a positive sense of self, creates autonomy, and builds self-confidence. In HighScope programs, children become a member of the “classroom community” and identify themselves with their specific teacher and their small group, which fosters the child’s sense of belonging. For example, children with special needs are often supported by their peers, which fosters friendship and a sense of citizenship. In one particular classroom, when a child with autism was becoming stressed and agitated, one of his classmates retrieved his comfort item from his cubby and brought it to him. Clearly, all children will benefit by being in inclusive and accepting classrooms where differences are not only recognized but also accepted and supported by peers and adults alike.

Physical Environment

The preschool classroom environment is organized to allow children to move freely to pursue their interests in clearly labeled classroom areas: toy, art, block, book, music and movement, sand and water, and home area.
Teaching staff in the Region of Peel Learn. Play.Care. Child Care Centres are challenged to create environments and activities that can be successful for all children. The center and classroom must be organized to accommodate mobility for a wheelchair or walker, and address all potential physical barriers to movement and participation. In planning activities in the classroom, teachers must consider the physical needs children may have and provide accommodations to ensure that all five ingredients of active learning (choice, materials, manipulation, child language and thought, and adult scaffolding) are present in the activity to support each child’s full participation (e.g., providing a tabletop easel in the art area for a child who cannot stand independently while painting). Teachers must also plan for children who are nonverbal or do not speak English, and have a variety of strategies in place to support these children in the classroom, such as providing a visual representation of the daily routine, labeling materials with pictures or symbols, and so on.

Classrooms in the Region of Peel L.P.C. Child Care Centres are rich in materials and include items from the homes of the children enrolled in each classroom (e.g., food packages, newspapers, cards, and print in their home languages). In some centers, each child has a small family photo album, and in others the family photos are on wall displays. Classroom news and schedules are presented in conventional print as well as symbols and pictures so that all children have success reading regardless of their home language or ability. Many of the classrooms in the Region of Peel L.P.C. Child Care Centres have signs printed in several languages throughout the room. Language learning research has identified the early years as a sensitive period for language acquisition and many of the children in our programs are learning more than one language at the same time (Otto, 2002). Center staff support home languages and include items from the homes of the children enrolled in each classroom (e.g., family photo albums, community flyers, recipe books, storybooks, and books with Punjabi, Chinese, or other print. A consistent and familiar daily routine also offers children a great deal of security, and when changes must be made, they are communicated to children at greeting time during the discussion of the daily message board. “Messages” (e.g., a teacher’s absence, a visitor coming to class) are conveyed in simple pictures or symbols so that children of all developmental and skill levels can participate. This helps to reduce children’s stress levels about changes in the routine, and provides a sense of security that makes new learning possible.

The Region of Peel’s inclusive classrooms honor each individual child’s family and create an acceptance and tolerance among the group for each child in the class regardless of color, race, ethnicity, religion, or abilities. Children develop understandings of each other as individuals and as families who are different and yet the same as theirs. Exposure to different cultures, including family structures, foods, languages, traditions, beliefs, and behaviors fosters an understanding and acceptance of our differences while reinforcing that we are all unique but equal.

**The Parent-Teacher Connection**

As one begins to consider the influence that the family, environment, and society have upon a child’s development, huge bodies of research begin to surface. Bronfenbrenner’s Ecological Systems Theory, the Interactive Systems Theories proposed by Louis Sander and Lev Vygotsky, and the Clinical Theories of Freud and Erikson all address the complex and interactive influences that shape children to make them the unique individuals that they are (Fogel, 2001). As educators, we must be responsive to, as well as mindful of, including family and cultural elements in our approach to teaching both individuals and groups of children. Since a child’s parents have the strongest early influence, they should be included in the child’s school experience in meaningful ways. According to Hohmann & Weikart (2008),}

![I Belong](highscope.org)

**Active Learning for Children With Special Needs**

This book includes practical strategies and real-life examples of the authors’ applications and adaptations of the HighScope Curriculum in a variety of preschool settings serving children with special needs. The elements of the HighScope daily routine, with specific ideas for accommodations for special needs children, are covered in depth.

**WC-P1348 $25.95**

**Teachers must plan for children who are nonverbal or do not speak English, and have a variety of strategies in place to support these children.**

![Teachers must plan for children who are nonverbal or do not speak English, and have a variety of strategies in place to support these children.](highscope.org)
HighScope programs should establish supportive climates by

- Forming authentic relationships with parents by being genuinely interested in them as individuals, listening carefully and respectfully, and being honest
- Sharing control with parents by learning and taking cues from them
- Focusing on family strengths by including family backgrounds, interests, talents, and culture in the classroom
- Making a commitment to supporting family play by inviting parents into the classroom community

Parent engagement is a priority objective that the Region of Peel centre staff continue to work at improving through a wide variety of supportive strategies and programs. In the L.P.C. Child Care Centres, parents are viewed as partners in the education of their children and are invited and encouraged to be actively involved in the program.

As educators, we must not lose sight of the fact that a child’s first teacher is his or her parents and that children are products of their environments, which include culture, language, beliefs, values, families, and history.

Families are included in the enrollment procedure and are encouraged to assist with the integration of their child into their new program. Supervisors and teachers have developed e-mail distribution lists to communicate with parent groups as well as individually as required. Permission, authorized by parents, allows teachers to forward photos of their “child at work” during the day by e-mail, and they have found this to be a wonderful way to reassure parents who are new to our programs.

Photos are also very effective communication tools for non-English-speaking families who can clearly see that their child is well and enjoying the program. Family Open House Events provide opportunities to introduce families from similar cultures and provide them with a network that newcomers to Canada may not have yet established. All 12 of the Region of Peel L.P.C. Child Care Centres have a “Snack to Go” program through which families can help themselves to breakfast foods, such as fruit, muffins, and cheese, at drop off time and a late-day snack at pickup time. Each center also has a “Turn Off the Screens” program designed to educate parents about the harmful effects of too much TV, computer, and video game use, and offers sign-out activities for families to take home and use together. The activities and materials (e.g., trail maps and pedometers, board games, books, balls, and Frisbees) are intended to stimulate family time, literacy, and physical activity. Parent feedback has confirmed the success of this initiative.

Parents are also encouraged to join the Parent Council Committee and participate in creating and supporting our vision for quality as we continually strive to improve the service to families. Parent participation on this council also provides transparency and accountability of service delivery to our clients. A Parent Survey is completed once a year, and the feedback from this year’s 575 returned surveys (87 percent return rate) is woven into management and center-specific goals for the coming year. Incorporating feedback from our families, staff, and management team creates a holistic approach to our service, embracing all aspects of the child in a dynamic process, which is responsive to each child and family’s needs and interests.

The learning that children create with one another is powerful, and an intuitive and responsive teacher can maximize and embrace these opportunities to make experiences meaningful for children. As educators, we must not lose sight of the fact that a child’s first teacher is his or her parents and that children are products of their environments, which include culture, language, beliefs, values, families, and history.

Parents, as partners in the education of their children, have the unique opportunity to form a greater understanding of child development. This knowledge can raise the bar on the quality of education parents will advocate for as they move from the Region of Peel L.P.C. Child Care Centres into their community schools.

References


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The following article is adapted from HighScope’s forthcoming book, Ready, Sign, Go! Using Sign Language to Promote Preschool Learning.

With the growing interest in signing by hearing people, sign language is no longer simply viewed as a visually beautiful language, or strictly as a mode of communication for those in the Deaf community. Increasingly, preschool teachers and caregivers are discovering the many benefits of using sign to support the learning and development of their hearing students in the areas of literacy (including improvements in children’s vocabulary, reading ability, and spelling proficiency), communication, and second language learning. Evidence also suggests that learning how to sign can enhance young children’s brain functioning, their self-esteem, and give them a concrete (and appropriate) way to express emotions. For children with special needs, sign language can provide a language “bridge” with the other children and adults around them.

Indeed, the potentially positive effects of learning sign language sound “like magic,” says Marilyn Daniels, a professor of speech communication at Penn State University and author of Dancing With Words: Signing for Hearing Children’s Literacy (2001). In addition to enhanced literacy skills, Daniels explains, “Sign also facilitates communication, is an effective tool for establishing interaction between home and school, aids teachers with classroom management, has been shown to promote a more comfortable learning environment and initiates an interest in and enthusiasm for learning on the part of students” (p. 3).

1. Sign language enhances brain activity and brain functioning. Because signing is a kinetic (motion-oriented) activity, it stimulates activity in both hemispheres of the brain: the right brain, which is responsible for visual-spatial reasoning and long-term memory, and the left brain, which is responsible for processing language. When you are signing with hearing children, you are not only reinforcing their existing verbal language by stimulating the left hemisphere of the brain, you are also teaching them another way to express language and planting it in their long-term memory, thus creating another connection to that information in their brain. This process also helps to establish two memory stores for language in the brain’s left hemisphere: one for English (or the native language of the user), the other for sign. So children who use both spoken language and sign language develop a built-in redundancy of memory, storing the same word in two formats in separate areas of the left brain. This dual storage system is useful to children’s long-term memory because it strengthens their brain connections and creates another memory store from which to draw information.

A growing body of research also indicates that ASL, used as a second language in young students’ bilingual education, has distinct advantages over a spoken language in that it “also offers its users superior visual spatial skills which may translate to better sight word recognition, reading ability, larger English vocabularies, and further both receptive and expressive language development” (Daniels, 2003, p. 66).

2. Sign language enhances fine motor coordination. All infants have the motor control to approximate the signs to say words before they acquire the vocal skills, because...
the vocal apparatus to form speech develops more slowly than the fine motor skills or finger movements necessary to form signs. This has implications for the classroom, because when hearing children use their hands and fingers to form letters and words during signing, they are exercising some fine motor muscles they might not use without signing. Think about the children in your program who have trouble with tasks that require fine motor skills, such as cutting and writing. Signing can be an exciting and interesting way for those children to practice their motor skills, which in turn will prepare them for drawing and later for writing when they are ready.

Movement actually promotes good health in many ways. Consciously controlled and coordinated movements stimulate production of neutrophins (stimulate nerve growth), increasing the number of connections in the brain. The more precise the movements, the more developed these networks will become (Hanaford, 1995).

3. Sign language raises awareness of diversity. Sign language can also open the door to introducing your children to the Deaf community, the world of deafness, and sign as another language. It is important to let children know that sign is a real language used by members of the Deaf community. As one teacher explains, not only does learning sign language help hearing children communicate with those who have hearing impairments, but it also gives them “an appreciation of the manner in which children with hearing disabilities communicate and learn” (Cooper, 2002, p. 119). Explain to children that deaf people use their hands instead of their voices to communicate, because the Deaf cannot hear. Your children may wonder or ask, “If the deaf can’t hear, does this also mean they can’t talk?” The answer is no. Many Deaf people can talk — they just choose to communicate with their hands. You can also explain to children that when some deaf people speak, their voices may sound a little different than a hearing person’s, and you might have to listen more carefully to understand what they say. Raising awareness of the Deaf community and culture can be a rewarding benefit in your early childhood program as children learn to understand and respect differences in others.

In addition to linguistic and cultural diversity, differences also exist in children’s physical, cognitive, and developmental abilities. You may have a child in your classroom who uses physical aids (e.g., crutches, wheelchair, hearing aid) or has a speech delay. It is important that all children be recognized by their peers as active members of the class. Again, using sign language as a means of communication in the classroom can foster children’s appreciation of differences, with the potential for “breaking down barriers to participation” (Brereton, 2008, p. 322).

As Sue Buckley and Gillian Bird explain in their article “Including children with Down syndrome (Part 1),” “The other children have the opportunity to learn to understand the effects of disability and to learn how to care for and support children with a variety of needs. They will learn that all children with disabilities are children first, with the same psychological, emotional and social needs as all other children…” (1998, Schools as Agents of Change, para. 5). Sign language can be just as beneficial with your students who are second language learners, providing a common ground for communication. (For further discussion of these topics, see #6 below.)

4. Sign language enhances and increases children’s vocabulary and reading skills. Signing is another way for hearing children to communicate. Communication is the start of enhancing their vocabulary and reading skills. As they are learning sign in your classroom, they are expressing themselves in another language that is understood by adults and their peers who are learning with them. Because of this they are gaining a sense of confidence and becoming competent in learning new words and phrases in another language, which in turn builds their total vocabulary (Volterra, Iverson, & Castrataro, 2006). When hearing children learn to express themselves using ASL, in addition to their first language, such as English, they are learning two distinct languages, which makes them bilingual. These two languages together will expose them to a larger vocabulary. Research shows that young children who have greater exposure to words, along with opportunities to use and understand those words, will develop stronger literacy skills later on in life (Hart & Risley, 1999).

5. Sign language helps infants and toddlers communicate their preverbal wants and needs. After two decades of research pointing to the benefits of teaching sign language to infants and toddlers, parents and caregivers now recognize that although babies lack the means to produce vocal speech, they have the conceptual ability to use language and the physical ability to make signs. In 1982, pioneering child development experts Linda Acredolo & Susan Goodwyn discovered that babies between the ages of 10 and 24 months used simple gestures to communicate before they were able to talk. For the last two decades, they have studied the effects of infant-parent communication using sign, summing up the results of their research in their book, Baby Signs: How to Talk With Your Baby Before Your Baby Can Talk (2009). In a two-year study of 103 11-month old babies, funded by the National Institutes of Health, Acredolo and Goodwyn found that signing babies consistently outperformed non-signing babies, scoring higher on intelligence tests, understanding more words, having larger vocabularies, and engaging in
more sophisticated play (2009). In addition, when babies and toddlers are able to communicate their needs, their level of frustration is reduced, and tears and tantrums are less likely. The ability to make themselves understood fosters feelings of competence and trust in children and results in more positive adult-child interactions — essential to a child’s development and sense of well-being.

6. **Sign language serves as a language bridge for children with special needs and children for whom English is a second language.** Children with special needs, which limit their ability to hear or communicate verbally, may use sign language as a means of expressing themselves and connecting with their teachers and fellow students. Signing provides a means of communication for children with various types of developmental delays, including those related to physical development, cognitive abilities, social-emotional or adaptive functioning, and receptive and expressive language.

In a six-month study of children ages from birth through age six, who had been diagnosed with, or whose communication difficulties suggested, the presence of disorders such as autism, Down syndrome, fetal alcohol spectrum disorder, and/or learning disabilities, researchers “engaged children, as well as those who teach and parent them, in building a bridge of signs to meaningful communication — including that produced by speech” (Toth, 2009, p. 85). While children in the study showed different levels of achievement depending on the complexities of their disability, the overall conclusion of the study was that even children severely compromised by cognitive, developmental, and physical impairment, will strive to communicate, and when given the opportunity to explore a visual and gestural language such as ASL, will “triumph” over their communication disabilities (pp. 93–94). Since some of the behaviors associated with autism and other disabilities (e.g., aggression, tantrums, self-injury) have been associated with the frustration that comes with the inability to communicate (Edelson, para. 2), signing may help to reduce these behaviors by giving children a much-needed means of expression.

**Children compromised by cognitive, developmental, and physical impairment have been shown to “triumph” over their communication disabilities using ASL.**

Signing can be also used to help English language learners (ELLs) learn English. Signing gives them a way to communicate with the adults and other children in the classroom. Students will acquire not only English but also ASL, making them, in essence, trilingual. In fact, “using ASL signs with a child of any age who is learning more than one spoken language actually aids in the acquisition of the second language” (Schabow, 2010, para. 3).

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Are you familiar with the term math anxiety? Well, did you know that it has a lesser known, but equally insidious twin, science anxiety? A research study devoted to the investigation of math anxiety in preservice teachers produced at least one dramatic finding: Teachers’ dislike of and discomfort with teaching math often is transmitted to their students. Sadly, the same thing happens with science. How many of you have been in preschool classrooms and noticed the dust accumulating in the “Science Center” on the bird’s nests, the branch of dead leaves, and the unidentified bones? Did you wonder what happened to the snake skin? It was vacuumed up along with the acorns and corn kernels.

Early childhood teachers are sometimes described as having a “phobia” about teaching science. Their discomfort is sometimes so great that they avoid supporting children’s pursuit of inquiry-based science. Yet these children are described in nearly every early childhood development book you open as being natural explorers, experimenters, and observers, and far more capable and knowledgeable than we have previously believed. In short, they are young scientists!

For children to acquire anything beyond random bits and pieces of information in any area, they require adults around them who are familiar with the content and able to scaffold their learning. If science is going to claim equal time with mathematics and language and literacy, teachers will have to reject the fear and ignorance, the “phobia” that has paralyzed them, and turn with excitement toward the light, dirt, ramps, structures, ants, shadows, and other delights that characterize early childhood science.

What Can We Do? Small Changes

Are you asking yourselves yet, “What does this have to do with me? I don’t do the Science workshop! I really hate worms! I’m doing COR and Intro workshops next week, why should I be thinking about science?” Relax. Take a deep cleansing breath. You know the expression, “every little bit helps?” Well, that applies here. If teachers and early childhood staff are not getting the strong science training they deserve, we can contribute by applying science to the structure (not the content) of whatever workshop we happen to be providing. Think of it as a bit of surface redecorating. We will be using science in our redecorating task by tuning in our science senses. We will offer some ideas to get you started, but good trainers are a remarkably creative bunch and we have no doubt that you will have lots of ideas to share with us and with each other. Are you still wondering how you will fit bits of science into a workshop without thoroughly confusing your participants? Any small unthreatening way we can demonstrate to teachers that science occurs everywhere, throughout the day, and that it is fun and cheap may encourage them to take a more active role in recognizing and scaffolding those learning opportunities in their classroom.

Minor alterations to the structure of your workshops can reduce teachers’ discomfort with science and encourage them to more actively scaffold science learning in their classrooms.

In 2008, HighScope introduced the six components of the HighScope Preschool Scientific Method (PSM) (observing, classifying, experimenting, predicting, drawing conclusions, and communicating ideas). (See box opposite.)

The Preschool Scientific Method describes the ways in which preschoolers engage with science concepts in their play and how you can recognize and support their explorations. Some of the ideas for inserting science and nature into your workshops can be linked to a couple of the HighScope PSM components. We will identify these solely to assist you in making the science connection, not to distract you from the topic of your workshop!

Children are natural explorers, experimenters, and observers, engaging with science concepts throughout the daily routine.
The Six Components of the Preschool Scientific Method

- **Observing**: Paying close attention to something to learn more about it
- **Classifying**: Grouping similar things together by identifying the relationships between things and the categories they belong to
- **Experimenting**: Testing an idea to see if it is true, or trying a solution to see if it works
- **Predicting**: Describing what you expect will happen
- **Drawing conclusions**: Fitting one’s observations into one’s existing system of knowledge and understanding
- **Communicating ideas**: Sharing one’s questions, observations, predictions, and conclusions with others

**Try This**

The following ideas will help you to subtly insert science into your next workshop:

1. **As you are putting together your workshop, think “natural.”** That is, whenever possible, use a natural product instead of something plastic (e.g., a reed or wicker basket instead of a plastic one; reusable dishes, cups, and silverware instead of disposable ones).

2. **As your participants are arriving, play CDs of real sounds of things, animals, or environments that could be familiar to your group** (harbor or ocean sounds are lovely, but not necessarily meaningful if your workshop is on a Navajo reservation in Cuba, New Mexico). There are also free audio files of sounds and sound effects to choose from on the Internet. If you are in the Midwest near the Great Lakes, perhaps you could find recordings of the waves lapping on the shore, buoys or fog horns, or even the sound of the ice cracking. If you are in a city, try to find recordings in which you can identify individual sounds, like a cat yowling, an ambulance, music playing, etc. Perhaps you are further out in the country, and depending on where you are, you might hear owls, peepers, coyotes, cicadas, and bears. (Although “observing” generally directs you to your visual senses, it can also be applied to the aural senses.)

3. **“Fiddle” toys — Most trainers provide a small basket on every table that includes pencils and sticky notes as well as toys to “fiddle” with.** If you are lucky enough to have access to a lake or seashore, then by all means stock up on shells and small stones, or look for pine cones at your local park. These are popular “classification” materials in preschool classrooms. You could also add nuts, seed pods, and so on (more great fodder for classification). The tiny Slinkys (plastic or metal) are not natural but can be very scientific (observation, experimenting, predicting) and would make a great addition.

4. **Grouping strategies — Do you have a favorite collection of grouping strategies?** Do any of them incorporate science? No? Well, let’s come up with some:
   - Collect different shells, stones, seed pods or, perhaps easiest, a combination of the three (observation and classification).
   - Laminate and cut out different leaves (if you are in an area where you can pick them up that morning, all the better) (observation and classification).
   - Find small containers with tight-fitting screw tops and put water, earth, and “air” in three of them. You will have to draw a representation of fire for the fourth unless you can think of a safe way to include it (observation).
   - Since classification is one of the components of the HighScope Preschool Scientific Method, anytime you ask the group to sort themselves according to some attribute you are “doing” science; for our purposes try thinking of several attributes instead of just one.

5. **Outside Time — Have your group do one of their activities outside.** Why? Because our children are spending less and less time outside and if their teachers do some of their work under the sky and the trees, perhaps they will realize what the children are missing. Following are some examples of experiences children have when they are outside that they may not encounter indoors:
   - “How can we get the bike helmet out of the tree?” (experimenting, predicting, drawing conclusions)
   - “Where’d this yellow stuff (pollen, insect guts, plant roots, etc.) come from?” (experimenting, predicting, drawing conclusions)
   - “Look what happens when you turn over this rock; role two different balls down a hill; swing or kick a ball (observing, prediction, experimentation, drawing conclusions).

This may be a good place to remind you that when you are using your “science eyes” to observe and listen to children outside, the science they experience is not just about nature, but many other types of science as well:

- The sound and speed of vehicles on the street that runs past the school (observing and possibly more).
- The chemistry of how chalk reacts to being dipped in water before you write with it on the pavement (observing, predicting, experimenting, drawing conclusions).
- The echo the children’s voices and footsteps create when they walk past a parking garage on the way to the park (observations and drawing conclusions). Children also
   - Explore the “other sides” of things like logs, rocks, a tire that has been out on the grass for a while, the underside of a flower petal, a beetle, or even the soles of their shoes! (observing).
   - Conduct experiments like dropping a variety of materials (e.g., rocks of different sizes, balls, pine cones, seed pods) from the top of the climber; seeing which sled gets to the bottom of the hill first; watching what happens when you drop acorns into the hollow in the tree trunk; discovering what makes the loudest noise when you bang on it; deciding who can run the fastest, or stand on one foot the longest (predicting and experimenting).

The possibilities for exploration outdoors are endless!

If you make these and other minor alterations to the structure of your workshops, and maybe even point out at the close of your session that all day, without ever being aware of it, everyone has been practicing the six components of the HighScope Preschool Scientific Method, then your participants will leave with great enthusiasm about your topic, and a little less fear of science.

**References**


Polly Neill is an early childhood specialist at HighScope.
Training

Workshops —
Learn more about the HighScope educational approach by attending workshops, customized training, HighScope Regional Conferences, or the HighScope International Conference. Topics include all the major elements of the HighScope approach — active learning, adult-child interaction, the daily routine, HighScope key developmental indicators, and assessment using the Child Observation Record (COR).

Courses —
Designed for more in-depth curriculum training, courses range from one week to seven weeks in length. They include curriculum training designed for teachers and administrators and adult training courses designed to prepare participants to be HighScope trainers.

Advanced Courses —
Recommended for those who have taken the HighScope Curriculum and/or Training of Trainers (TOT) courses. These courses offer in-depth, sophisticated work with content areas, such as literacy, mathematics, science, visual arts, movement and music, the Preschool Child Observation Record (COR), and the Preschool Program Quality Assessment (PQA). They also cover a wide range of processes, such as mentoring, evaluation, and working with children and adults in full-day programs and multiage, bilingual, and intergenerational settings.

For more information on HighScope’s Teacher, Trainer, and Program Certifications, please visit our Web site at highscope.org

Spotlight on Training from HighScope

New Course from HighScope
HighScope is for Elementary-Age Students Too!
- Kindergarten Teachers
- Primary Grade Teachers
- Principals
- Child Care Staff
- Curriculum Specialists
- Mentor Teachers

Wondering what happens to pre-K children when they enter big school? HighScope now offers a workshop that examines the HighScope Curriculum in elementary grade classrooms. Discover what plan-do-review looks like in a K–3 classroom, learn how to plan meaningful content workshops, and gain practical ideas for setting up a learning environment that meets local, state, and regional guidelines and HighScope principles.

Tuition: $500/person
Contact HighScope today to schedule a course in your area. Full Scholarships are available for host agency’s staff.

Customized Workshops by HighScope
Classrooms and child care programs are unique. HighScope staff is available to visit programs and provide classroom observation, feedback, and mentoring. One HighScope staff member can visit and provide support for two to three classrooms per day. Strengths and opportunities identified in these sessions help drive curriculum and training plans for teachers and supervisors. With input from teaching staff, parents, and others, HighScope can design a course agenda to deliver to fifteen workshop participants. Fees for customized services are $1,200/day plus travel expenses.

Online Courses
- Numbers Plus, $220/person
- Intentional Lesson Planning, $75/person
- Assessing Preschool Program Quality Using the PQA, $125/person
- Child Observation Record (COR), $240/person
- HighScope’s Child Planning and Recall Process, $125/person
- Work Time, $125/person
- Small-Group Time for Active Learners, $125/person
- Large-Group Time for Active Learners, $125/person

Watch highscope.org for dates!
WORKSHOPS

**Summer 2011**

HighScope offers the following workshops and courses at the foundation’s headquarters in Ypsilanti, Michigan. Workshops provide examination and discussion about a specific component of the HighScope Curriculum. Training Courses provide teachers with all of the technical assistance to fully implement the curriculum and to build the capacity to provide ongoing support to their colleagues.

**Introduction to the HighScope Curriculum for Infants and Toddlers**

This week-long workshop is designed to provide teachers with an overview of the successful HighScope Curriculum for Infants and Toddlers. This is a perfect opportunity for Early Head Start teachers, Head Start teachers, program administrators, and parents. **IN543 • July 11–15 and August 22–26, 2011 • $500/person**

**Introduction to the HighScope Curriculum for Preschool Teachers: Basic Principles and Strategies**

This workshop provides teachers with a one-week overview of the components of the HighScope Curriculum. Discussion will focus on curriculum content areas, valid and reliable assessment, the HighScope daily routine, team building, effective adult-child interaction strategies, and more. **IN511 • June 20–24 and July 25–29, 2011 • $500/person**

**Preschool Child Observation Record (COR)**

This workshop provides teachers with background, knowledge, and practical applications of the COR. The Preschool COR focuses on children’s everyday activities rather than isolated tasks used in standardized school readiness and achievement tests. **WK513 • July 11–13, 2011 • $340/person**

**Education Through Movement Summer Training**

This one-week course promotes a basic understanding of the Education Through Movement (ETM) program. Key areas include HighScope movement and music key developmental indicators, fundamentals of motor development, an effective teaching model — Separate, Simplify, Facilitate — and successful methods for integrating movement and music into other curriculum areas.

This training will be held at the DaySpring Episcopal Conference Center in Parrish, Florida. For more information, please visit highscope.org or call Karen Sawyers at 734.485.2000, ext. 224.

Early Registration: $995 if paid in full by March 31, 2011; after March 31 the Registration Fee is $1,095, (includes training fee, six nights lodging, and 18 meals).

**MM001 • July 17–23, 2011 • $975.00/person (includes tuition, lodging, and meals)**

**Preschool Curriculum Course (PCC)**

(Conducted over two summers)

The four-week Preschool Curriculum Course is designed to prepare teachers and caregivers to implement the HighScope Curriculum in their early childhood programs. **$3,135/person**

**Week 1**

**Fundamentals in the HighScope Preschool Curriculum**

**TE511 • August 1–5, 2011**

**Week 2**

**Children in the HighScope Preschool Environment**

**TE512 • August 8–12, 2011**

**Weeks 3–4**

**Summer 2012**

**Training of Trainers (TOT)**

(Conducted over two summers)

Prerequisite is the Preschool Curriculum Course or equivalent.

The three-week Training of Trainers course is designed for those who have already completed extensive training in the HighScope Curriculum and wish to extend their skills to training adults in the educational approach. The course is held over two summers at the HighScope Foundation headquarters in Ypsilanti, Michigan; two weeks the first summer and one week the second. Those successfully completing the course earn certification as HighScope Trainers with an endorsement in the HighScope Preschool Curriculum. **$3,960/person**

**Week 1 Developing and Presenting Workshops**

**TR515 • July 18–22, 2011**

**Week 2 Observation/Feedback**

**TR516 • July 25–29, 2011**

**Week 3**

**TR517 • Summer 2012**

**TRAINING COURSES**

**New Course**

**HighScope Infant-Toddler Curriculum Course**

Appropriate for caregivers, teachers, and teacher-trainers, this comprehensive course is designed to improve both staff skills and overall program quality. In-depth discussion occurs with the following topics: creating a supportive environment, establishing and managing an effective daily schedule, observation and assessment, assessing program quality, and working with colleagues and parents. **TE530 • $2,025/person • June 13–17 and June 20–24, 2011 plus eight days (to be announced) in Summer 2012.**

For more information on HighScope’s professional development options, customized on-site training, or certification, please contact Gavin Haque at 734.485.2000, Ext. 218, or via e-mail at training@highscope.org, or visit our Web site at highscope.org.

To register for training, call 734.485.2000, Ext. 234, fax 734.485.4467, or register online at highscope.org.
Continued from page 8

challenge for providers in child care centers and homes to secure the inservice training and program implementation assessment they need to use validated curriculum models as they should be used. It is difficult to build outreach to parents into programs that serve children whose parents’ lives are filled with their employment demands. And how can we assess program implementation and children’s development in programs run by providers with little preparation? A massive shift in public priorities is critical to the future of child care in the United States, but until then, we have to do the best we can for the sake of all our children as well as the rest of us. Perhaps the medical principle of doing no harm is the best place to start, recognizing that our greatest enemy is a status quo that tolerates neglect of children’s development.

References


Larry Schweinhart, PhD, is the president of the HighScope Educational Research Foundation.