The Developmental and Educational Significance of Recess in Schools

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In Britain and the USA, recess (or break time) is slowly being phased out of the school day. For example, a national survey conducted in England in 1995-1996 showed that lunchtime break had been reduced, relative to 1990-1991, in 38% of the elementary schools. Further, afternoon breaks have been eliminated altogether in 27% of the elementary schools surveyed and 12% and 14%, respectively, of preschool and middle schools (see Pellegrini & Blatchford, 2000).

Proponents of recess reduction in both countries maintain that recess detracts from an already limited instructional time budget and provides opportunities for students to exhibit anti-social behavior, such as negative peer relations and aggression. However, we maintain that recess plays a positive role in children’s academic achievement and social development and, ultimately, in school adjustment. Our research has shown that breaks, or play, actually encourage academic achievement. Furthermore, youngsters learn valuable social skills by interacting with peers at break time, and these social skills help them to adjust to school.

Recess and Academic Achievement

Educational research, in contrast to current educational policy, consistently indicates that break time does have positive “educational value.” For example, in four field experiments conducted in American elementary schools, we found (Pellegrini & Davis, 1993; Pellegrini, Huberty, & Jones, 1995) that the longer children worked without a break on standardized tasks, the less attentive to the task they became. In addition, children were more attentive to class work after recess than before.
Why is this the case? Two current theories in educational research attempt to answer this question.

• One theory maintains that breaks inserted between periods of intense work serve to distribute effort and increase cognitive performance. For over a century, experiments have been conducted in this area with consistent results — participants, regardless of age, learn better and more quickly when their efforts are distributed compared to when they are massed. Children and adults alike benefit from breaks during periods of intense work.

• Another theory states that when children are exposed to a series of demanding cognitive tasks, cognitive interference occurs, with a resulting decline in performance. Learners of different ages are released from this interference in different ways — young children respond well to non-structured breaks, whereas older learners benefit from simply changing tasks.

Recess and Peer Relations

In addition to its apparent academic benefit, recess is extremely valuable to social development. Recess may be one of the few times during the school day when children can interact with peers on their own terms and learn and practice important social skills. Games, in particular, seem to serve an important role for young children since they provide a familiar routine (Bateson, 1976) around which unacquainted children

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Pellegrini’s awards and honors include: Fellow, American Psychological Association (Educational and Developmental Psychology); Traveling Fellow, British Psychological Society; Fellow, National Conference on Research in Language and Literacy; Fellow, National Institute of Health/Senior International; University of Georgia Creative Research Medal in Social Science; and, honorary professor, University of Cardiff (Wales). He was the keynote lecturer for the British Psychological Society: Developmental and Educational Psychological Section Meeting.
can interact. These interactions form the basis for subsequent social relationships in school.

In a recent study of playground games in elementary schools in Minneapolis, we found that children’s recess was spent in cooperative interaction, much of which involved rule-governed games with peers. Importantly, and consistent with other research (Pellegrini, 1988), very little aggressive behavior was observed. Being good at games on the playground was important to general social competence, which we measured as a combination of peer endorsements and adult-rated social competence.

In addition, children’s success at games during the first part of the school year predicted their social competence at the end of the year. Playground games are especially important at the start of the school year, when peers are not familiar with each other. Shared knowledge of a game can be used by relatively unfamiliar children as an initial basis for interaction. After repeated interactions in games, children become familiar with each other and then interact in other domains.

Expertise with the sorts of games played on the playground results in high peer status as children of this age choose to affiliate with others with whom they share play activities (Hartup, 1983). Children who are leaders in playground games are sought out by peers as sources of group activity.

We found, however, that children’s roles in games changed across the school year. In a study of playground games in elementary schools in Guilford, England, children came to school with knowledge of games learned from an adult or an older sibling, but in the course of interacting with their peers, they adapted the behavior to their new environment. At the very beginning of the school year, games appeared to support new social contacts —
Children's success with one dimension of peer relations (being good at playground games) predicted their adjustment to school. Using preliminary data from our Minneapolis sample, we found a positive association between children nominated by their peers as being good at games and sports and school adjustment in the first year of elementary school (as rated by teachers and researchers). We suspect that the success that children experience at playground games translates to more general feelings of competence in school.

initiation of games could be seen as initiation of a new social relationship. As the school year continued, games reinforced existing social groups and friendships.

However, children differ in their willingness and ability to initiate and sustain playground games. The Guilford Study identified a few pupils who took on the responsibility of suggesting, maintaining, and terminating games. These “key players” appeared to have a crucial role in the development of friendships and games. Case studies indicated that key players are likely to be popular and to be seen by peers as group leaders, but differences within this group were also apparent, particularly between boys and girls. Boys identified as “key players” seemed to hold this position because of physical prowess, girls because of social skills and imagination, possibly associated with academic progress.

These results were replicated in the Minneapolis study, wherein children nominated by their peers as game leaders were also the most socially competent, or “popular.” Game leader status also “increased” with the size of the play group in which children were observed. Size of play groups, in turn, was correlated with social competence. We suspect that the leadership skills of game leaders make them attractive to their peers, as indicated by their receipt of peer nominations and their attraction of many peers to their play groups. Once in these play groups, leaders gain additional skills to boost their social competence by practicing and learning additional social skills.

Related Courses Offered by the Department of Educational Psychology at the University of Minnesota

**EPsy 5200:**
Special Topics: Seminar on Children’s Play (Spring 2003)

**EPsy 5216:**
Introduction to Research in Educational Psychology

**EPsy 8216:**
Seminar in Research Processes

For more information about these courses, visit [http://education.umn.edu/edpsych](http://education.umn.edu/edpsych) and click on “Courses”.
These findings are especially interesting given the ethnic diversity of the children in the Minneapolis sample. In the two elementary schools studied in Minneapolis, the majority of children were of African American, Latino, or Asian American (mostly Vietnamese and Hmong) backgrounds, not of European American backgrounds. A major developmental task for children of this age, of course, is adjustment to school. This task is especially difficult for different cultural groups because the culture upon which American public education is based is, generally, different from that of these minority cultures (Heath, 1983). Our results suggest that when children, regardless of their cultural background, are valued by their peers for success in one dimension of school (success with games in the playground), it has a positive influence on their adjustment to this new environment.

Playground games are also important in the development of heterosexual relationships for older children. Differences in how boys and girls play, spend break time, and develop social networks are well documented (Maccoby, 1998; Pellegrini, 2001). For example, in elementary school boys tend to play with other boys because they enjoy physically vigorous activities, and girls segregate themselves from boys’ play groups because they do not enjoy rough play (Pellegrini & Smith, 1998).

Boys and girls do, however, begin to interact with each other socially during early adolescence (Pellegrini, 1995, 2001). For example, Pellegrini (2001) found that as boys progressed through middle school, they engaged less frequently in physically vigorous play and more frequently in sedentary social interaction during break times. Adolescents used these break time opportunities to explore heterosexual relationships (Pellegrini, 2001). For example, boys and girls alike used forms of “poke and push courtships” to interact with peers of the opposite sex (Maccoby, 1998). They would push, play hit, and tease opposite sex peers as a relatively safe way in which to initiate cross-sex interaction. These early forms of courtship are “safe” because they are ambiguous. If there is a positive response to the overture, fine — interaction with an
opposite sex peer was successfully initiated. If the overture is rebuffed, the initiator saves face with his/her peers because it was playful, i.e., not a serious overture.

**Conclusions**

Recess improves academic achievement, peer relations, and school adjustment. For young children, it can provide a welcome respite from intense cognitive activity. During the elementary school years, it is especially valuable as rare time in which children can develop peer relations and social skills. These skills, in turn, are important to children’s successful adjustment to school.

Successful peer relations in school and academic success directly support each other (e.g., Coie & Dodge, 1998; Pellegrini & Blatchford, 2000). The idea that school breaks provide opportunities for children to learn and practice social skills with their peers is noted in the context of decreasing opportunities for peer interaction in children’s lives. For example, a survey in the early 1990s found that London students are now far less likely to walk to school, presumably accompanied by other students, than they were 20 years ago (Hillman, 1993). Likewise, after school, many American children return to empty homes, waiting for their parent(s) to return from work (Steinberg, 1988), instead of going to a friend’s house or an after-school program.

In both America and England there is concern with antisocial behavior in youth generally and in schools, specifically. By way of solutions, many American politicians are calling for special programs to teach social skills in school. We suggest that most children learn social skills by interacting with their peers in meaningful social situations, such as recess.

Recess provides an “extended classroom” in which children can learn important social skills. These skills should be considered “educational.” In addition, spaced break times directly improve children’s attention to class work. Further, the social skills learned on the playground relate to more general school adjustment.
References


New Grant Announcement: Early Literacy Training Project

CEED has been awarded a $1.4 million grant from the Office of Elementary and Secondary Education of the U.S. Department of Education. This exciting opportunity will fund the Early Literacy Training Project. Under the overall direction of Mary McEvoy, Chair and Professor of Educational Psychology and Lead Researcher, the project will be coordinated by Angèle Passe and Kate Horst.

The project is a creative collaboration between the University of Minnesota, CEED, the Minnesota Child Care Resource and Referral Network, Minneapolis Public Schools, the Minnesota Department of Children, Families and Learning Head Start/Child Care Team, the White Earth Indian Reservation, and the Greater Minneapolis Day Care Association.

Over the next two years this grant will allow CEED and its partners to revise and refine an existing early education curriculum focusing on early literacy and language; develop a cadre of educators who will train preschool teachers across the state; work with preservice training programs to assure that teacher preparation includes early literacy and language competencies; and manage an interactive Web site to disseminate research-based information about literacy and language development for young children.

A critical component of this project will be to provide intensive technical assistance to preschool educators in four pilot sites in Minneapolis and at the White Earth Indian Reservation and to study the impact of this formal training by assessing children’s early literacy skills as they enter kindergarten. The end goal is to help Minnesota preschool children develop better early literacy and language skills as a solid foundation for later reading ability.

Get It, Got It, Go!

Tools for Improving Children’s Developmental Outcomes

Get It, Got It, Go! is a comprehensive Web site with informational materials and database-driven systems to help educators and researchers select measurement tools to monitor children’s development, manage the data acquired, and collaborate with parents and peers.
**Get It**
Obtain informational materials and assessment tools for measuring the developmental growth of children from birth to age eight.

**Got It**
Enter individual child data and generate graphical reports to monitor the developmental growth of individual children and groups of children, and determine if intervention is necessary.

**Go!**
Communicate and collaborate about a child’s progress over time and about intervention plans to improve child outcomes.

We are currently alpha-testing the Get It and Got It parts of the Web site —
- To get feedback on the overall structure and design.
- To obtain input from informed users so we can fill-in and revise the content to ensure that it is accurate and complete.
- To capture feedback and locate problems about the data-driven tools.

**Head Start QNet Project Update**
In addition to providing support to specific Head Start grantees through partnership agreements, the Great Lakes Head Start Quality Network (QNet) is working with the Department of Children, Families and Learning (CFL), the Minnesota Head Start Association, and QUILT. QUILT is a national training and technical assistance project funded by the federal Head Start and Child Care Bureaus to support full-day, full-year partnerships among child care, Head Start, pre-kindergarten, and other early education programs at the local, state, tribal, territorial, and regional levels.

This year QNet is working with the state collaboration officers, state monitors, and the integration team of the Minnesota Department of Children, Families and Learning to align QNet and CFL priorities and work (when possible and as necessary). This effort is focused on finding the best way to support Minnesota Head Start grantees.
Minnesota Infant Mental Health Project

This year the focus of the Minnesota Infant Mental Health Project is on creating an online credit course on working with preschoolers and their families using a relationship-based approach grounded in infant mental health theory and practice.

Susan Schultz, Ph.D., and Anne R. Gearly, LICSW, are helping to develop the curriculum for the new course, Working with Preschoolers and Their Families: Relationship-based Practice. The new course is being prepared to complement the course, Positive Approaches to Challenging Behavior in Young Children, being developed through CEED (see update on page 12.) Together, the two courses will offer teachers a complementary set of theories and assessment and intervention strategies for use in meeting the diverse needs and addressing the specific behaviors of children in their classrooms.

In addition, the Project sponsored a presentation by Stella Acquarone, founder and director of the School of Infant Mental Health in London, and an early childhood strand at the annual conference sponsored by the Minnesota Association for Children’s Mental Health in Duluth this past April.

PICA Head Start and CEED Collaborative

Researchers from CEED have joined the Parents in Community Action (PICA) Head Start program of Minneapolis in an exciting new collaborative venture. The goal of this project is to introduce PICA Head Start teachers to CEED’s Individual Growth and Development Indicators, or IGDI’s. IGDI’s are efficient, easy to administer tools that produce reliable information about a child’s development in areas such as early literacy and language skill. IGDI’s are analogous to height and weight charts. They provide an indication about a child’s overall “health” in important developmental domains.

In early January, researchers from CEED and administrators from PICA worked together to teach teachers across all Head Start classrooms to use IGDI’s for assessing children’s development.
UPDATE • Ceed-Affiliated Projects

Start centers in Minneapolis to administer and interpret early literacy and language IGDI’s. Specifically, they taught teachers to administer rhyming, alliteration, and picture naming IGDI’s. Once teachers were trained, they administered the measures to all children in their preschool classrooms within a three-week data collection window. This spring, teachers will be administering the IGDI’s to children again.

Currently, CEED researchers are in the process of analyzing and interpreting the IGDI data and hope to disseminate the data back to teachers in the coming weeks.

This project provides a worthwhile and engaging opportunity for both teachers and researchers. While IGDI’s have been administered and tested by researchers at the Early Childhood Research Institute, this is one of the first large-scale dissemination efforts in which teachers have the opportunity to use and give feedback about the measures.

A main purpose of IGDI’s is that they be sensitive to instructional change. PICA and CEED staff hope that the use of IGDI’s by teachers will add to an awareness of the importance of creating classroom environments that are language and literacy rich.

I’PROMICE

Improving Preschoolers’ Reading Outcomes Through Measurement and Intervention in Classroom Environments

I’PROMICE examines relationships between preschoolers’ growth of their expressive language/pre-literacy skills and their later performance in becoming proficient readers. These preschoolers include children with disabilities, children whose primary language is Spanish, and children attending Head Start programs.

I’PROMICE is continuing to follow a cohort of children recruited in the first year of the project. Administration of preschool Individual Growth and Development Indicators (IGDI) and kindergarten Dynamic Indicators of Basic Early Literacy Skills (DIBELS) general outcome measures are conducted seasonally as are ecobehavioral classroom observations. An additional cohort of children were recruited this past year and are being followed as well. Preschool (IGDI) general outcome measures are administered monthly to these children and ecobehavioral classroom observations are conducted seasonally. Children are still being recruited for this cohort and researchers hope that all of the children will continue to be involved in the project next year.
This will allow them to collect more data regarding the relationship between early childhood measures and beginning reading measures.

Another component of the project is scheduled to begin in late Spring 2002. Project staff will begin to recruit teachers to assist in developing a classroom intervention program. The program will be designed using information about the relationship between child performance on language and early literacy measures and classroom ecological variables. This intervention component will be implemented with a new group of children to be recruited in the Fall.

**Early Childhood Behavior Project**

The Early Childhood Behavior Project is currently providing training in three communities to develop teams to address the needs of young children who engage in challenging behavior. The multidisciplinary teams have completed the Positive Approaches to Problem Behavior in Young Children coursework and are currently receiving technical assistance from project personnel as they proceed with their first referrals. Responses to referrals have included developing successful environmental arrangements, conducting functional behavioral assessments and developing positive support plans. In addition to responding to referrals, the two rural community teams have presented workshops to child care providers in their areas.

The Positive Approaches to Problem Behavior in Young Children Web site (http://ici2.umn.edu/preschoolbehavior) has seen a steady increase in use and popularity. CEED staff are continually enhancing the Web site with information and tools for parents and professionals, including a public discussion board and live chats with experts on early childhood.

It is anticipated that development of two online courses will be completed for 2002-2003 —

1. Positive Approaches to Problem Behavior in Young Children focuses on functional behavioral assessment and developing positive behavior support plans. Interventions taught in this course include strategies in communicative replacement.

2. Working with Preschoolers and their Families: Relationship-based Practice will enhance professionals’ awareness of the relational and developmental dimensions of children’s experiences and behaviors.

Availability of these courses will be announced on our Web site, or CEED can notify you via e-mail if you contact Karen Anderson at ander352@umn.edu, type “Notify me” as the subject, and include course #1 or course #2 in your message.
New CEED Publications

Talking Reasonably and Responsibly About Brain Development — Trainer Edition

This guide has been developed to assist in training child care providers, families, parent educators, and others about myths and misunderstandings on the subject of early brain development. It is also intended for use by those who would like to incorporate early brain development information into their trainings on other topics.

The guide is divided into four modules —
1. Overview of early brain development.
2. How to be a savvy consumer of research about brain development (or any topic).
3. Analysis of public messages about early brain development.
4. How to blend brain development information with child development information.

The guide is complete with ready-to-use diagrams and overheads, active learning exercises, glossary of terms, and resource list. Cost is $25, to order, visit http://education.umn.edu/ceed and click on “publications”, or call 612-625-3058.

Questions About Kids?

If you’re a parent or professional with questions about children’s development, Questions About Kids is for you! Questions About Kids are flyers that provide answers to important questions parents have about their children’s development.

We’re introducing a new series of eight Questions About Kids focused on infants and toddlers. They include a range of topics that address contemporary concerns and highlight the unique delights and challenges of the first years of life. They were written by experts at the University of Minnesota and in the Twin Cities community and were reviewed by experts at the University of Minnesota. For the first time, some of the Questions About Kids are available in Spanish, Somali, and Hmong. They are being distributed via the web and through community health, social service, and parent education programs. We encourage you to use them as you see fit. The new topics are —

• How can parents and caregivers support a baby’s healthy development?
• What’s going on in my baby’s brain?
Questions About Kids is a joint project of the Irving B. Harris Training Center for Infant and Toddler Development and the Center for Early Education and Development, University of Minnesota. Questions About Kids is on the Web at http://www.harristrainingcenter.org and http://education.umn.edu/ceed/publications. Questions About Kids may be downloaded and reproduced as necessary, with no copyright restrictions. Our goal is to provide current, accurate information to parents. Hand them out individually to families, use them to foster group discussion, or follow up on a conversation.

Recent Faculty Publications

Deborah Ceglowski


Mary McEvoy


Anthony Pellegrini


Joe Reichle


Upcoming Events

Minnesota’s Early Intervention Institute, 2002
A Collaborative Intensive Graduate Course for Professionals Working with Young Children with Disabilities

Date: August 5–7, 2002, St. John’s University, Collegeville, MN

Topic: Diversity: Challenges & Opportunities in Early Childhood Assessment & Programming

Keynote: World Without Walls: Cultural Competency as Skilled Dialogue, Isauara Barrea, Ph.D., Associate Professor, Early Childhood Special Education & Coordinator of Multicultural ECSE Graduate Program, University of New Mexico

Session Topics: International Adoption-Post Institutional Medical & Developmental Issues; Cultural Dynamics of Child Development and Childcare; Working with Linguistically Diverse Families; Techniques to Support Collaboration with Culturally and Linguistically Diverse Families; Cultural Competence in Early Childhood Assessment; Anti-Bias Curriculum; Special appearance by Tou Ger Xiong, Diversity consultant, Comedian, Storyteller, and Rap Artist.

Registration: For more information about this event or to register, contact Jill Haak at 320-255-9994 or jahreh@cloudnet.com.
CEED-Affiliated Projects

Early Childhood Behavior Project
Contact: Judy Swanson, (612) 626-9528, swans114@umn.edu
http://ici2.umn.edu/preschoolbehavior

Early Childhood Research Institute on Measuring Growth and Development (Get It, Got It, Go! and I’PROMICE)
Contact: Scott McConnell, (612) 624-6365, smcconne@tc.umn.edu
http://ici2.umn.edu/ecri/

Early Literacy Training Project
Contacts: Kate Horst, horst011@umn.edu;
Angele Passe, passe008@umn.edu, (612) 626-8723
http://education.umn.edu/ceed/projects/literacy

Minnesota Infant Mental Health Project
Contact: Christopher Watson, (612) 625-2898, watso012@tc.umn.edu
http://education.umn.edu/ceed/projects/infantmentalhealth

Head Start Project
Contact: Deborah Ceglowski, (612) 624-2034,
deborah.a.ceglowski-1@tc.umn.edu