

Title: Use of Computers and Other Forms of Media at the Cornell Child Care Center

Date Approved: June 16, 2009

Topic summary: The Child Care Services Subcommittee had occasion to discuss the use of computers in the toddler and pre-K classrooms. Computers are used by the teachers to enhance student learning as well as part of the everyday job of the teachers to share information. The committee had a lively debate ranging from should the computers be in the curriculum of a toddler at all to how best to make use of computers in the classroom. Some observations of the computer use in the classroom include:

- According to their parents (1000 parents surveyed with the results in Rideout, 2003), children six and under spend an average of about two hours a day with screen media (1:58), about the same amount of time that they spend playing outside (2:01), and three times as much time as they spend reading or being read to (39 minutes).
- In one study (Li, 2004) with 122 participants, the results state, “Children who had access to a computer performed better on measures of school readiness and cognitive development, controlling for children’s developmental stage and family socioeconomic status”.
- On the other hand, the tests administered in Li, 2004 were on a relatively small data set, was not longitudinal and some of the tests may not even be appropriate for children under the age of 5 – the latter is admitted in the paper.
- Some of the committee members noted that at this age it seems that **supervised** use of the computer would be most appropriate, but with the ratios in the toddler and pre-K direct supervision seemed in doubt.
- In at least one of the pre-K classrooms, computer use is limited to 15 minutes in the morning.

Discussion summary: Several pros and cons were also discussed. Some are listed below.

- Some of the software is written with a specific lesson in mind. Some of the committee members appreciated that students can learn valuable lessons from this software. One of the child care experts on the committee explained that any lesson taught using a computer can be taught without it.
- Given that there will be classrooms with the age range of 3-5 year olds, some members were concerned that there would be software that is age inappropriate for the younger students. Since the ratios of some classrooms is 7-8 to 1, some members contended that there are going to be times where the children are using computers without direct supervision (see above).
- Some members were concerned about how much time each child will be allowed to spend using the computers per day. Some said that if the numbers were in the

15-20 minute range per day it would not be a problem. Others contended that parents might like to use the “total daily media exposure time” of their children at home rather than during daycare.

- Some committee members did not want their child using ANY media at the daycare center. One member in particular refused to enroll her child in the center for that reason.
- Five specific compromises were proposed:
 - Some members suggested having mobile stations so that if parents decided not to include them in the classroom, they could be easily removed. The teachers could also use mobile computers when necessary.
 - Some members suggested that the computers could be in the classroom, but covered until they were to be used. In fact one member observed that in one class room the instructor placed furniture in front of the computers when they are not in use.
 - Other members suggested that they could be placed in a “library” where the students would go when they were going to use the computers. The contention is that this would guarantee direct supervision. Some members thought that this would lead to students wanting to increase their computer use – the computers might be seen as forbidden fruit.
 - Some committee members thought that the decision should be left up to the parents. In rebuttal, others suggested that it is easier to add computers than it is to remove them. Given that they are already there this may be moot.
 - One member suggested that there be a “media-free” room where children whose parents did not want computers in the classroom could be placed.

Recommendations: The committee made the following recommendations (aside from the suggestions above).

- The center should make certain that all staff members are trained and aware of the computer use policy.
- Children should only be allowed supervised and limited use of the computers.
- The computer use policy should be communicated to all of the parents in a mailing separate from the weekly newsletter.
- Only children actively using the computers should be allowed at the computer station.

Clarifications and Actions Taken

- Bright Horizons shared that computers are only available to children in the pre-K classrooms.

- Bright Horizons implemented the “Computers in Preschool Homebases” (see Appendix) training for all current and future teachers.

References:

Li, Xiaoming and Melissa S. Atkins , “Early Childhood Computer Experience and Cognitive and Motor Development”, *Pediatrics* 2004;113;1715-1722

Rideout , Victoria J., Elizabeth A. Vandewater and Ellen A. Wartella “Zero to Six: ELECTRONIC MEDIA IN THE LIVES OF INFANTS, TODDLERS AND PRESCHOOLERS”, Kaiser Family Foundation Report, Fall, 2003

Appendix

Cornell Childcare Center Computers in Preschool Homebases

The *World* philosophy is that children who are developmentally ready, typically around age 3, will have access to computers. As they mature, they will acquire the computer tools that will guide their learning and living. There are many benefits to using computers in the homebase, such as:

- A computer can be used to create social connections among children; children can work and learn side by side
- Computers are sometimes a place where a shy or reticent child might feel comfortable
- Children with certain disabilities may be able to fully participate in computer activities
- Some children become known as “computer experts”, boosting their self-esteem
- Working at a computer can help foster hand-eye coordination and enhance auditory and visual discrimination and tracking skills
- Children who do not have access to a computer at home begin to feel comfortable with the technology, which will be important as they reach elementary school where computers become more prominent

How do we use computers in the homebase?

In a Bright Horizons homebase, the computer is only a small part of the rich hands-on learning environment. Below are suggestions on how to incorporate computers into your program:

- Carefully plan the placement of the computer. Try to place them in a quiet area in the homebase.
- Guide the children with clear instructions on how to use the computers. Write and post the rules next to the computer.
- Teachers must judiciously choose software that is age-appropriate, creative, non-violent, free of bias, and not simply cute and cartoon-like with little educational value. Try to include open-ended software where children can draw and/or there is more than one correct way to accomplish a task.
- With older children, computers can be used as a resource to enhance and expand the classroom curriculum.
- Embrace computer time as an opportunity for teachers to work with individuals, observe what they are doing, and ask open-ended, thought-provoking questions to help the child expand their experience.
- Older children might draw symbols, create signs, or begin to write memos on the computer

Note: Computers can be beneficial, but are not a replacement for a child’s learning through books, blocks, microscopes, dolls, and make believe; paints, journals, sand and water, trees, grass, running, climbing, jumping, and most important, good conversation

Guidelines for computer use in preschool homebases:

- Set up a system in each homebase to ensure that children are taking turns. This could be a timer; each child will use the computer for 10 – 15 minutes
- One child at a time at each computer – children are not to sit and watch the computer
- Facilitate the learning – teachers need to be present in order to ask the open-ended questions
- Computers will not be used when children are being welcomed or dismissed from the homebase – computers are to remain off during these periods

I have read and understand the guidelines surrounding computer use in the preschool homebases:

Teacher signature: _____

Date: _____

Supervisor’s signature: _____