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Computer Ergonomics for Teachers and Students

Inger M. Williams, Ph.D.

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Tom Cook

Oregon Public Education Network (O.P.E.N.)

Tami Zigler

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This project was supported by a Grant from Or-OSHA 1998/99



1833

“ it is the duty of parents and those who act for them to take care that the school-room shall be placed where the children may acquire the use of their intellectual faculties without having their physical organization disturbed or their vital powers debilitated by a constrained position ”

from Zacharkow, D. Sitting, Standing, Chair Design and Exercise, 1988, page 122



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Why introduce computer ergonomics in schools?



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1. Formative years



Develop physically

Establish habits

2. Cost effective

To make computer ergonomics as easy to apply by our students as it is using a **safety belt and** bicycle helmet would be a proactive approach to CTD

3. Multi-user workstations

1st grader



5-6th grader

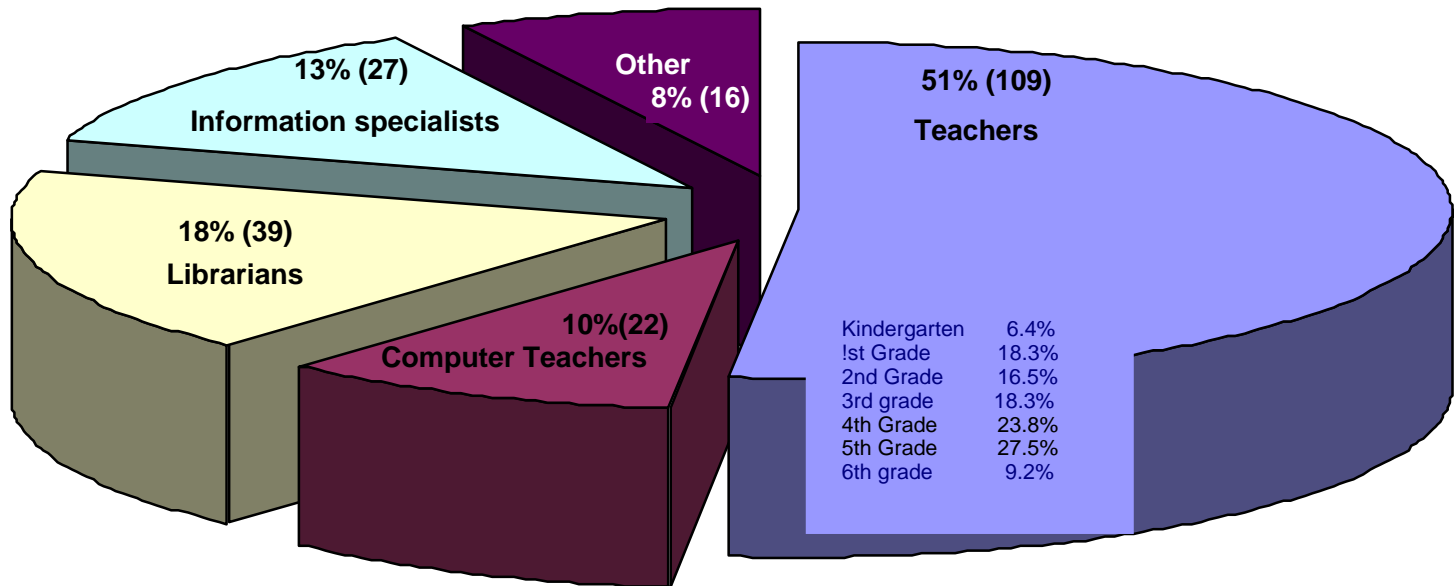




Is there a need for computer ergonomics in schools?

Participants:

32% (218) returned



Teachers concerns about students:



Student workstation set up: 74%

Student computer habits: 68%

Student comfort:

visual 56%

back, neck, shoulders 47%

arms, elbows, hands 40%

Have you ever heard any student complain about discomfort?

Type of discomfort	% of teachers reporting
Eyes	17
Headaches	9
Wrists	9
Hands	9
Arms	9
Neck	8
Shoulder	5
Upper back	4
Lower back	3

Computer Skills?

- 70 % teacher education classes
- 30 % workshops
- 84% self-taught

Teacher discomfort?

- 38% visual
- 36% back, neck, shoulder
- 26% arms, elbows,

Computer Ergonomics?

- **80 % want computer ergonomic education for students**

important	34%
very important	28%
mandatory	18%
- **75% want computer ergonomic education for teachers**

important	33 %
very important	22 %
mandatory	25 %
- **88% no information about computer ergonomics**



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How can we introduce computer ergonomics into schools?



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When?

Grade level	Percent
K	43
1st	13
2nd	8
3rd	16
4th	5
5th	1

What?

- Ergonomics guidelines adapted for the school environment
- Good postural habits for children
- Visual considerations for children

- Adapt available school equipment to fit all students

- Teaching tools to teach typing skills and postures
- Teaching tools to teach seated postures

- Ergonomics projects for students
- Case studies from schools
- Furniture selection



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How?

	Instructor	Material	Format
Student	Class room/ Computer teacher	Web, video, poster, projects	Computer classes
Teachers	Computer teacher	Web, video, handout, poster	District provided education



Pilot Projects and Workshops

Problem - Solving



Eye height

Viewing angle

Neck tilt

Elbow height

Hand position

Back support

Popliteal height

Foot support



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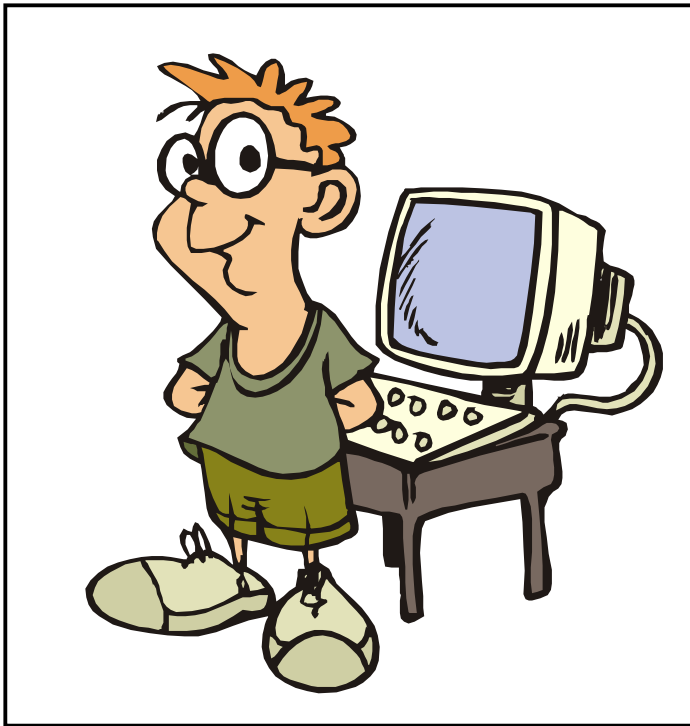


- Wood work project
- Home and careers



Web site:

www.open.k12.or.us/cergos/



Case studies



Why?

Is there a need?

How? When? What?

Student, Teacher, Parent
Involvement and Ownership

cergos@rochester.rr.com