from Howard Richman and Jay Snyder

The preliminary results from PA Homeschoolers 1991 fall testing are in. 391 students were tested 31% just took the reading and math tests, the other 69% took the optional science and social studies tests as well. Those who want to see the final results should subscribe to the Home School Researcher (attn Brian D. Ray, Western Baptist College, 5000 Deer Park Dr. SE, Salem Oregon 97301) where a more complete final version of this study as well as the final version of our math study will probably be published.

PA Homeschoolers Score High

The average percentile rank for students who were tested in the schools when the CTBS/4 standard-ized achievement test was normed was the 50th percentile (by definition). The average percentile ranks for the homeschooled students (averaging normal curve equivalents and converting to percentile rank) were the following:

Subject Area	Ave. Percentile Rank
Total Reading	88
Total Math	81
Science	86
Social Studies	88

These scores are very high, but are very similar to the high scores that we have measured in our two earlier years of testing — the 86th percentile in reading and 74th percentile in math. These scores do not represent the scores of all homeschoolers in Pennsylvania, just those homeschooled students who have participated in our fall testing program.

Results of the Questionnaire

While the students were being tested, three fourths of their parents were filling out questionnaires about reading at home. The tests and questionnaires were numbered so that Jay Snyder was able to pair the test scores with the questionnaire results without knowing who the people were. Then Howard Richman did a computer analysis of the results using a file that

did not have any information about who the people were. Our purpose was to find out which answers on the questionnaires were associated with good test scores in reading, social studies, and math. Among questions, we asked parents if the student were handicapped and whether the student had been homeschooled the previous year. The rest of our results report the relationships between scores and questionnaire answers for students who had been homeschooled the previous year and were not handicapped. We tried to discover what things students who are good readers do. Keep in mind that there is no way to tell whether these things made them good readers.

Poor Readers Read Textbooks

When we asked parents, "About how many hours per week does this student spend reading? (textbooks, books, magazines, newspapers, etc.)," it turned out that good and poor readers both spent about the same amount of time reading.

But what they read was different. When we asked parents, "When this student reads, does he more often read a textbook or something else?" it turned out that the more students read something else the better that student scored with reading. Not only that, it turned out that the more that student read something else, the better that student scored with social studies and science as well.

It may be that reading textbooks doesn't help students with reading, science, or social studies as much as reading other things. On the other hand, it may just be that good readers prefer reading other things to textbooks or that poor readers spend so much time reading textbooks that they don't have time to read anything else.

Good Readers Read for Enjoyment

We asked several questions which all led to the conclusion that good readers often read for their enjoyment.

We asked, "How often does this student read for fun on his own time?" It turned out that the more often the student read for fun on his own time, the better the student scored on the reading test.

Similarly, when we asked, "About how many books did this student read last school year? (not including text-books)." It turned out that the more books the student read, the better he scored in reading, science and social studies. The median number of books read in a year by homeschooled students was 50 books.

It may be that reading more books for fun made good readers better. Alternatively, it may just be that good readers read more books for fun.

Good Readers Read Magazines

Good readers and poor readers were pretty much equal on many factors including how many books were in the home, whether the family subscribed to a newspaper, and whether the student read aloud to others. However, when we asked parents, "How many different magazines does your family get each month?" it turned out that the more magazines that the family received each month, the better the student scored in reading, science and social studies.

It may be that the more families subscribed to magazines, the more their students became interested in reading, science, and social studies. Alternatively, it may be that families who were more interested in reading, science and social studies were more likely to subscribe to magazines.

Good Readers Watch Less TV

Several other studies, including a study in Pennsylvania's public schools using the TELLS test, have found that the more school students watch television at home, the worse they score on reading tests. You will probably never see a television special which publicizes this result!

In order to see if the same thing was true for homeschooled students we asked parents, "How much time does this student spend watching television on what is normally a school day? (not including shows watched as part of school work)." Not surprisingly, it turned out that the less

television watched, the better the student scored in reading.

It may be that turning off the television gets students to read more, and so they get better at reading. Alternatively, it may just be that good readers don't choose to watch as much television.

Good Readers Listen to Reading

There are two subtests that averaged together make up the Total Reading score. The subtest called Vocabulary has more to do with the number of words a student can read, while the subtest called Comprehension has more to do with how well a student can answer questions about what he or she has read. Many people suppose that the way to help students with reading comprehension is to have them read something and then ask them questions about it.

We found, however, that the students who are often tested after they read, do not score better in Comprehension or Vocabulary than students who are not tested. Similarly, students whose parents hold discussions with them after they read didn't score better either. However, students who are read to more often by their parents did score better in Comprehension even though they didn't score better in Vocabulary. There were two questions that bore this out.

We asked, "Before this student could read aloud on his own, how often did he or she listen to you or another good reader read aloud?" It turned out that the more a student was read to before he learned to read, the better he scored in Comprehension once he learned to read even though being read to did not effect his Vocabulary score.

We also asked, "About how often does this student listen to you or another good reader read aloud?" It turned out that the more often the student listened to reading aloud, the higher the student scored in Comprehension even though the student's Vocabulary score was not effected.

It may be that reading to students is the best way to boost their reading comprehension. On the other hand it just may be that students who have good reading comprehension want to be read to.

Where Children Learn to Read

Page 7

Some people might suppose that students have to learn to read in school to become good readers. People who don't know much about homeschooling often assume that parents don't have the skill to teach students to read. In order to search for an answer we asked parents, "Did this student learn to read in school or at home?" It turned out that 28% of our sample learned to read in school, while the other 72% learned at home. Where the student learned to read did not significantly effect reading scores. However, students who learned to read at home scored better in social studies. Children who learned to read at home averaged at the 92nd percentile in social studies while students who learned to read at school averaged at the 86th percentile in social studies. It may be that students who learn to read at home are better socially adjusted and thus more interested in social studies. Of course many other explanations are also possible.

When Children Begin to Read

Some people might suppose that students have to start reading by a certain age or they will not become good readers. To find out if this is true, we asked parents, "How old was this student when he or she began to read easy 'I Can Read' type books aloud? (for example 'The Cat in the Hat')". Non-handicapped home-schooled students began to read aloud at ages ranging from 2½-years-old to 8-years-old. The average age was 6.

It turned out that the age that a student learned to read did not significantly effect his Comprehension scores but it did effect his Vocabulary scores. Children who learned to read younger scored better with Vocabulary. However, once we eliminated fourth graders and younger from consideration, it turned out that by fifth grade not even Vocabulary scores were effected by when a student had started reading "I Can Read" type books aloud. It appears that, as far as their eventual reading ability is concerned, it may not matter when

When Children Read Silently

students start to read.

It does matter, however, when students begin to read silently to themselves. It turned out that the earlier that students started reading books with many chapters silently to themselves, the better they were with Vocabulary scores.

In General

In studies of this kind, we can't really tell what causes what, we can just tell which things appear together. Nevertheless, this study does suggest several interesting conclusions:

- 1. Children who spend their reading time with magazines and books other than textbooks score better with reading, science, and social studies.
- 2. Children who are read to score better with Comprehension.
- 3. Children who read to them-selves score better with Vocabulary.
- 4. Sell your television and use the money to pay for magazine subscriptions!