



# Parenting in a Changing World

## How Research Can Help

“As a parent, you are preparing your child for a world vastly different from the one in which you grew up.”  
(*Helping Your Child Learn Science, p.1*)

By Dr. Eugene Jongsma

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### Education is Changing

Education has changed and is continuing to change in important, fundamental ways. In earlier generations, the focus of education was acquiring knowledge and learning facts. An “educated person” was someone who could score high marks on examinations that assessed factual information. While learning factual information can still be important, times have changed, and other skills may be more important.

In the past 50 years, our world has seen a knowledge explosion! There is more information literally at our fingertips and many more ways to receive it.

So, what does this mean for education? Two things. First, it is impossible to teach students everything they will need to know because the sheer amount of knowledge exceeds the time available to teach it. Second, it is impossible to predict today exactly what students will need to know in 10, 15, or 20 years from now because of these rapid changes. So what should schools do? In the

1990s, a high-level commission in the United States did a comprehensive study of the skills and competencies workers need in a high-performance workplace. The study identified five competencies and three foundation skills that are needed for solid job performance.

Yes, the commission found that students still need basic skills in language and maths, and the ability to think creatively and critically. But they will also need the ability to acquire, organize, interpret, and evaluate information; the ability to use technology tools for specific tasks; and the ability to work as part

of a team to solve problems and reach common goals. These are the very skills that students acquire from doing research. (*Learning a Living: A Blueprint for High Performance, 1992*)

Another important change that is taking place in education is the impact of technology. Technology is revolutionizing the way students learn and what they learn. Computers, i-pods, sophisticated phones, video games, and other electronic devices are standard equipment for most young people. A recent study of 818- year olds



found that they were watching TV, playing video games, working on their computers, or listening to music for a total of 6 hours and 23 minutes EVERY DAY! (Roberts, D.F., 2005)

The slogan of the younger generation has become “learn any time, any place.” No longer is learning confined to the classroom or to specific hours of the day. Recognizing this cultural shift, many university professors are offering their lectures as downloadable podcasts that students can store on their i-pods and listen to at all hours of the day or night. Online degree programs have greatly expanded giving working students opportunities to study and learn on their own schedules, not on those of an institution.

### Why should students learn how to Do research?

Parents often ask this question. With all the skills and content to be learned, they wonder why should precious class time be devoted to research? After all, isn't research something that is learned at the university or on the job?

Many benefits can be derived from doing research. The most obvious, of course, is that it prepares children for tasks that they will face in college and on the job. By engaging in research at earlier ages, students will learn to analyze problems, develop critical thinking skills, locate and evaluate information, and organize and manage resources to accomplish a goal. These are the very workplace competencies that will ensure success later in life.

But engaging students in meaningful research has other benefits that may not be immediately apparent. Studies have shown that students who participate in research activities become better organized and more independent learners. Through the process of collecting and analyzing data, they learn the importance of being systematic. Their self-confidence also grows as a result of these experiences.

There is another benefit that comes from learning how to do research. By examining issues and topics that are important to them and their communities, children actually create new knowledge. This rarely happens in the traditional curriculum. Children are experts on their own lives and uniquely qualified to investigate issues pertaining to them. By teaching them the tools of research, we actually empower them to explore issues that matter to them and to seek solutions to those issues.

### How can parents help?

Recognize that you are your child's first and most important teacher. Children tend to do what their parents do, so what you say and do in your daily lives can help them develop positive attitudes and self-confidence toward learning.

You do not have to be a scientist or even have a college degree to help your child learn science or math. Support and encouragement are more important than expertise.

Here are some ways that you can support your child's learning.

- Talk to your child. Speaking and listening play major roles in a child's academic success. Find time to talk wherever you are – while riding in the car, while shopping, while watching TV, and as you read together. Also encourage your child to ask questions. If you don't know the answers, discover the answers together.
- Encourage your child to be responsible. One of the greatest gifts we can give our children is the ability to accept responsibility and work independently. The development of these traits begins in the home by establishing rules, assigning tasks, and monitoring whether those tasks are completed.
- Encourage your child to read. Having your child become a reader is the single most important thing you can do to ensure school success. Start early. Read to your young children. Visit bookstores and libraries regularly. Give books as gifts. Show that reading is important to you. Share and enjoy books together.
- Monitor TV viewing and game playing. Limit the amount of time your child spends watching TV and playing video games. If possible, watch family programs together and talk about them.
- Help your child learn to use the Internet wisely and safely. To succeed in today's world, children must become proficient at using the Internet. Spend time with your child online. Help your child locate appropriate Websites. Teach him the rules of Internet safety. If you don't know them, ask your child's teacher.



- Encourage “active learning” as well as “quiet learning.” Not all learning takes place while reading a book or searching the Web. Children, especially young children, need opportunities to play and to interact with peers. Encourage your child to take things apart. Old toys, broken clocks and household appliances offer great lessons, but be mindful of safety.

- Take family trips to education sites. Museums, zoos, science centres, and visiting exhibitions give children opportunities to make new discoveries and expand their knowledge. Make sure to talk to your children about what they see and learn. Club. Get older children involved in community service activities such as those offered by Reach Out to Asia ([www.reachouttoasia.org](http://www.reachouttoasia.org)).

- Enroll your child in a Research Club or a Science Club. Some Independent Schools have started after-school Research Clubs as an extracurricular activity. These clubs give students a chance to learn the basics of research in a fun and non-threatening way since there are no grades given. If your child’s school does not have such a club, talk to the principal/operator about starting one.

Try to strike a balance between setting high expectations for your child, while supporting him/her if those expectations are not always met. With patience and support, your child can become a life-long learner who continues to ask questions, seek solutions, and solve problems long after leaving school. Your child will not just be a consumer of vast

amounts of information, but an innovator who helps drive Qatar forward.

### Websites for Parents and Children

#### Websites for Science

[www.si.edu/kids/](http://www.si.edu/kids/)  
Smithsonian Institution’s Website

[www.nationalgeographic.com](http://www.nationalgeographic.com)  
National Geographic Society’s Website

<http://www.nsta.org/portals/parents/>  
Resources for Parents on the National Science Teachers Association Website

<http://www2.fi.edu/>  
Franklin Institute Science Museum’s Website

<http://www.hhmi.org/coolscience/index.html>  
Howard Hughes Medical Institute: Cool Science for Curious Kids

#### Websites for Mathematics

[www.figurethis.org/index40.htm](http://www.figurethis.org/index40.htm)  
Figure This! Math Challenges for Families  
[www.learner.org/exhibits/dailymath/](http://www.learner.org/exhibits/dailymath/)  
Math in Everyday Life: How do numbers affect everyday decisions?

[www.mathforum.org/parents.citizens.html](http://www.mathforum.org/parents.citizens.html)  
The Math Forum for Parents and Citizens

[www.stemworks.org](http://www.stemworks.org)  
Educational Realms: Resources for Engaging Active Learners in Math and Science

<http://www.goenc.com/>  
Eisenhower National Clearinghouse

#### Websites for English

[www.literacycenter.net](http://www.literacycenter.net)  
The “Literacy Center” is a non-profit Website offering over one million free literacy lessons each month to children in 141 different countries.

[www.starfall.com](http://www.starfall.com)  
Starfall is a non-profit family enterprise that offers free learn-to-read resources in English to the children of the world.

[www.meddybemps.com](http://www.meddybemps.com)  
The developers of this Website believe young children learn best through exploration and play and not through skill and drill lessons.

[www.bbc.co.uk/schools](http://www.bbc.co.uk/schools)  
This education portal for the BBC offers a wonderful collection of learning resources for parents and teachers.

<http://pbskids.org/>

PBS Kids gives young children below the age of eight opportunities to play, explore, and interact with familiar television cartoon characters through music, games, and stories

*Dr Eugene Jongasma is the Education Consultant in the Research Skills Development Unit at the Education Institute*