

About the Vermont Mathematics Coalition

The Vermont State Mathematics Coalition was formed in 1990. It came about as a result of a grant from the Mathematical Sciences Education Board for which the Vermont Council of Teachers of Mathematics applied. The Mission Statement includes the statement:

"The Coalition will be a resource throughout the state for schools, parents, businesses and government."

Other Coalition activities include:

- Vermont Employer/Teacher Internship Program
- Expanding Horizons: Bringing College/University Mathematicians to your Classroom!
- Talent Search: Identifying talented High School mathematics students.
- Summer Institute for Talented Students: An 8 day experience at the University of Vermont.

You can find more information about the Vermont Mathematics Coalition on our web site at <http://www.state.vt.us/educ/vsmc/>.

Resources

The following are a few related sources of information that might be of interest or of help in setting up your own tutoring program. Others may be found at our web-site.

- Current information on the Vermont Mathematics Coalition Tutoring project can be found at <http://www.state.vt.us/educ/vsmc/tutoring>, including a current version of this brochure which you may copy and distribute in its entirety.
- We are working to produce a videotape of some talks Brian Nelligan from Essex High School gave at IBM on learning styles, left-brain/right-brain thinking, and tutoring techniques. When it is available we will add information on them to the web site.
- The Vermont School-to-Work Program <http://www.state.vt.us/stw/>
- *The School-to-Work Resource Guide: An Experiential Learning Activity Handbook for Teachers, Employers, Students and Parents*, available from:

Lake Champlain Regional School-to-Work Collaborative
60 Main St.
Burlington, VT 05401

Feedback

We would like to hear your comments on this material. And we'd especially like to hear from anyone setting up their own tutoring program. Let us know about your experience. What worked? What didn't? How did you modify the material provided here? What results have you achieved? Send e-mail to davidh@btv.ibm.com or BobChaffee@aol.com, or send your comments to:

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Establishing a School/Business Tutoring Partnership

Schools today are faced with the challenge of preparing students to take their places in an increasingly complex world. They need to ensure that students have an understanding not only of facts and figures, but also of how to apply this knowledge to solve problems in the real world. At the same time, businesses and others in our communities are looking for ways to get more involved in the education of the students who are our children, our neighbors, and our future employees, employers and coworkers.

In this brochure we outline one way in which businesses can enter into a partnership with schools by providing individual tutors to students. This can yield several benefits:

- It provides students with additional one-on-one help for which their teachers don't have time.
- It can help students understand the relevance of their studies to real life situations.
- It enhances the dialog and understanding between schools and businesses in the community.

These are lessons learned from efforts since 1997 between between IBM and local schools, beginning with Essex High School, Colchester Middle School, and South Burlington High School, under the auspices of the Vermont State Mathematics Coalition. It is not the final word on such a program should be organized. Many aspects can and should be changed to adapt to the specifics of the school and business. For example, IBM has an extensive internal intranet to which all employees have access and which was used to provide an internal web site at which volunteers could sign up. At other businesses the sign-up might be handled by a bulletin board list or through internal mail.

Participant Roles

A successful tutoring program requires involvement from many different parties.

School

We believe the school needs to take the initiative in establishing a program of this sort. The tutoring program described here is only one kind of business/school relationship. Other business/education partnerships are described in depth in *The School-to-Work Resource Guide: An Experiential Learning Activity Handbook for Teachers, Employers, Students and Parents* (see resources list).

To establish a tutoring program the school needs to:

- Designate a coordinator to:
 - Receive lists of volunteers from business(es) or pass requests to the business coordinator(s).
 - Link up students with tutors.
 - Keep in contact with coordinators at participating businesses to keep volunteer lists up to date.
 - Iron out problems that will inevitably occur.
 - Act as an advocate for the program within the school.
- Decide on the types of assistance they would like to ask for. This can include remedial and/or enrichment tutoring. It may be in specific subject areas or may cover all classes in the school. And it may include in-class assistance and tutoring and/or tutoring outside of class time.
- Provide a place and time(s) where students and tutors can meet. For protection of both students and tutors, we feel that tutoring should occur at school. This can be before or after school, during study halls, etc.
- Communicate to students and teachers that volunteer tutors are available.
- Decide on an appropriate security policy. Depending on the level of supervision provided during tutoring sessions, the school may need to do some screening of potential tutors. One advantage of working with an area business is that this screening may piggyback on a security screening already performed by the tutor's employer.

Business

Once a business determines that there are schools in the community that would like to participate in a tutoring partnership, the business should:

- Identify a coordinator who will coordinate tutoring-related activities within the business. This person should:
 - Accept and coordinate requests for tutors from area schools.
 - Collect a volunteer list and pass it on to the school, or collect requests from schools. This should include volunteer contact information (phone number, e-mail address) and subject(s) in which the volunteer is willing to help. The business may match volunteers with requests or may allow the school coordinator to contact volunteers directly to set up potential tutoring arrangements.
- Establish and communicate policies regarding tutoring, including when it is allowed, who approves it, whether it is on company or personal time, etc.
- Commit to the program for some period of time. This includes providing appropriate support for employees who are volunteering to tutor.

While we describe the tutoring relationship as one between a business and a school, it could involve other community organizations as well.

Teacher

The teacher needs to be willing to help the tutor understand what the student is supposed to be learning by providing course outlines, text books (if requested and available), and other similar information.

The teacher should also be willing to help the tutor understand the kind of help the student needs. Is the student having problems with the facts of the subject or with their application? Is the student bored with the class pace and in need of some enrichment activities? The teacher should be ready to help the student and tutor to establish objectives for tutoring. This may be more important in younger grades where the student is less able to help guide the tutoring sessions to meet his or her needs.

Student

First and foremost the student needs to commit to work with the tutor. Ideally the student will initiate the request for help, having been informed that help is available. In addition, the student should:

- Show up on time for meetings with their tutor, and let the tutor know if they will be unable to do so.
- Tell their tutor what they are having problems with, and generally help the tutor to help them.
- Tell their teacher that they are getting tutoring help and help the tutor coordinate efforts with the teacher. Work with the tutor and teacher to set objectives for tutoring.
- Provide feedback to school coordinator and tutor to let them know how the tutoring is working.

Tutor

In signing up as a volunteer the tutor is stating a willingness to commit a significant amount of time and effort helping one or more students. The tutor needs to decide the range of grade levels, the school(s), and the subjects in which they are willing to assist. Once a tutor has been contacted and has agreed to tutor a student they should:

- Exchange phone number information with the student so they can contact each other if they need to change meeting times.
- Show up on time for meetings with the student, and let the student know if they will be unable to do so.
- Determine from the student, the teacher, and from observation where the student needs help.
- Educate themselves on different learning styles and tutoring techniques (see resources list).
- Work with the student and teacher to establish objectives for tutoring.
- Familiarize themselves with the subject matter and with the lessons the student is working on.
- Try to help the student understand the relevance of their studies to "real world" activities.
- Provide feedback to school and business tutoring coordinators to let them know how the tutoring is working.