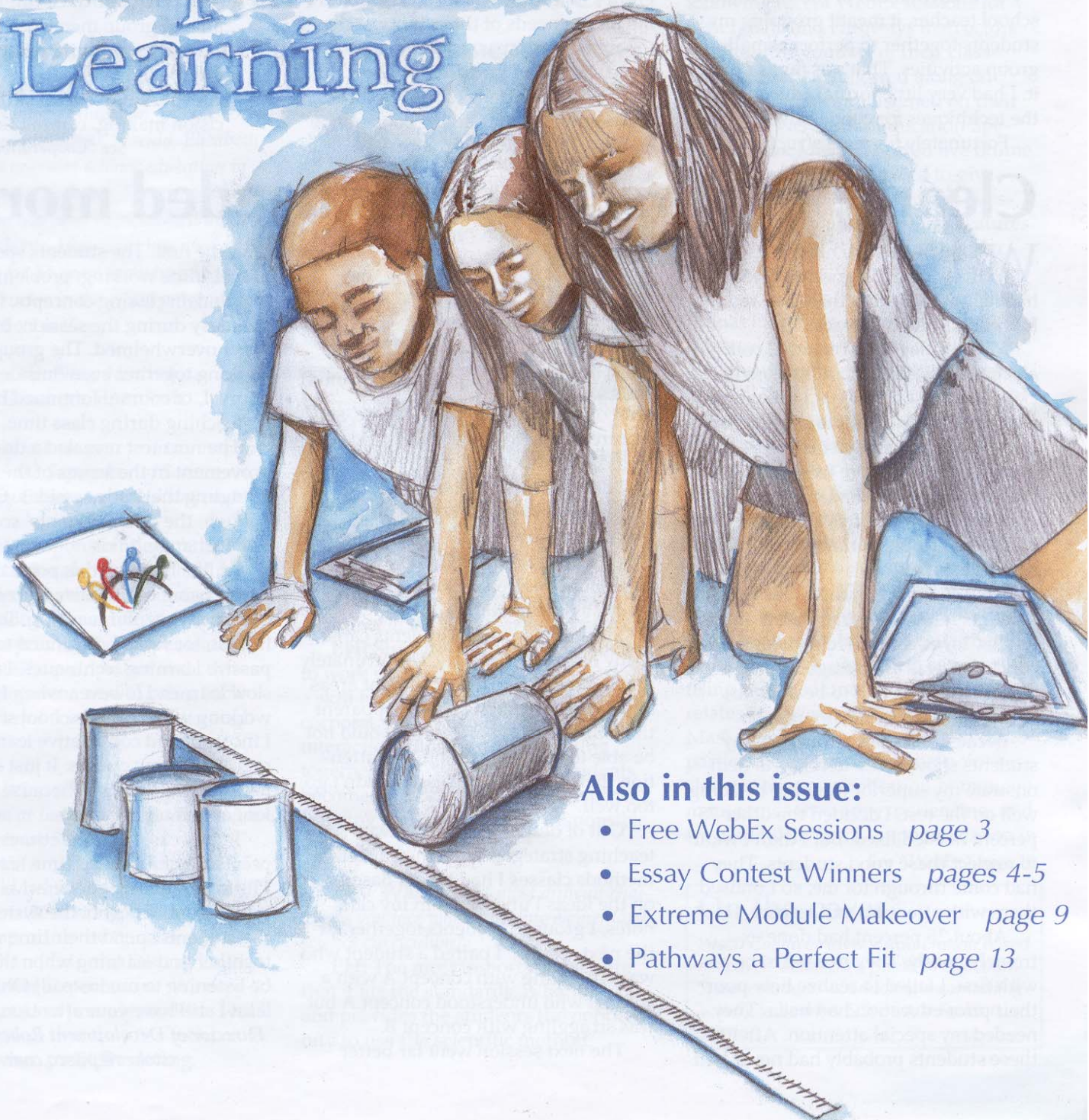


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# NETWORK

SERVING TEACHERS OF PITSCO'S SYSTEMIC SOLUTIONS

## Cooperative Learning



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# Opportunities for cooperative learning are readily available

While CareerPorts are designed for a single student to complete, opportunities exist for cooperative learning. The timing and extent of that cooperation is up to you, the teacher.

If you have students working on the same CareerPort assignment at the same time, you may wish to encourage teamwork during the research, design, and validation phases of assignment completion. The actual development of the final product should be done independently.

During the research and design phases, students can share resources and equipment. They can work together while completing experiments and gathering data.

Individually, students should analyze their own data and write their own reports. You may also wish to encourage students to simply discuss the assignment and bounce ideas off one another.

This type of brainstorming can help students see the assignment in new ways while still allowing them to add their individual spin to the final product.

Look for cooperative learning op-

*Reviewing another person's work can help students hone their own writing skills. It can also highlight the importance of constructive criticism.*

## Cooperative Learning

portunities beyond just the sharing of equipment. For example, in *Human Growth & Development*, groups of students can conduct their classroom observations together.

In this instance, you may wish to promote discussion of their observations. How did each student's observations differ? What do these differences mean in light of the assignment? Discussing their findings as a group can bring up issues students may not have considered on their own.

During the validation phase of the assignment, you may wish to institute peer review as a part of the proofreading and editing process. Reviewing another person's work can help students hone their own writing skills. It can also highlight the importance of constructive criticism.

The flexible structure of CareerPorts allows you to customize the cooperative learning experience for your particular students. You choose when and how students work together.

Cooperative learning in CareerPorts should help students understand the balance of teamwork and individual accountability.

To that end, always think about your limits and standards. How much of the work can be done together? When do you expect students to split up and work independently? The caveat for successful cooperative learning is to clearly communicate your expectations.

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## You have options with equipment, software

One challenge teachers and students must occasionally address is the use of equipment and software in CareerPorts. Many CareerPorts require these items in completing specific assignments.

What are you supposed to do when five students are working in the same CareerPort but only a couple sets of equipment are available?

For example, the *Marketing* CareerPort has two ClickSmart digital cameras and microphones. What should you do when you have five students scheduled in the *Marketing* CareerPort at the same time? In some cases, you might have to schedule the use of this equipment.

However, because the equipment is used in only one of the nine assignments and two sets of equipment are included, conflicts should be rare. Also, assignments usually include other aspects that don't require the equipment.

In some instances, you might choose to have students use the equipment together (cooperative learning) and then write reports individually.

In the rare instance when students are waiting to use equipment or software, encourage them to conduct additional research. Some students do not spend enough time on the research side of CareerPorts unless required to do so.

If you have questions about which assignments require which equipment or software, contact us and we will assist you. *CareerPorts Customer Service Representative Darris Lassiter, dlassiter@pitsco.com*



# Help students access additional resources

So you're not an engineer or a nurse or a financial analyst? Don't fret! If you find the content in a CareerPort is beyond your realm of expertise, you can still help your students get the most out of their assignments. The answer lies in finding the right resources.

Always begin by reviewing the components of the assignment. Read the description, all the messages and attachments, the schedule, and all the available resources to get a handle on what is expected of the student. Also refer to the grading guide and any answer keys for direction.

If you find you still need additional support, locate extra resources and subject matter mentors. Sourcing additional books, Web sites, videos, CD-ROMs, and so on may help you and your students feel more comfortable with the content.

**Subject matter mentors** are individuals who have specific content

knowledge and who are willing to work with your students to answer questions and provide the insight and guidance you cannot.

The key to locating subject matter mentors is to look nearby.

- Look for **teachers** in your building who can offer expertise and guidance to your students. The physics teacher down the hall can help with physical science and engineering concepts. That friendly biology teacher you see in the teachers' lounge every morning can be a wealth of information for students completing lab activities in the Health CareerPorts. You'll find most teachers are happy to act as subject matter mentors. They'll have the opportunity to share their knowledge and love of a particular subject with students.

- Utilize your **library or media center**. Talk to the librarian about possible resources. He or she will know better than anyone what is available and how

to source the information you need.

- Search for community resources. Tap **dedicated professionals** who would be eager to share their knowledge with your students. For leads on individuals willing to help, contact local businesses, professional associations, and institutions for higher learning. Getting the community involved in your classes provides positive exposure for your school and could even lead to tremendous opportunities for students, such as internships and job offers.

- Go beyond the suggested sites listed in the Web links area of the resources section. While these links provide valuable information related to the assignment, you or your students might need additional insight. Use **search engines** such as Google to hunt down sites dealing with specific student questions.

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and conflict management must be taught and never assumed.

- **Group processing** – Time must be spent by the group members assessing what actions are working within the group and adjusting actions that are not bringing success to the group.

Of these five elements, group processing is typically the area most neglected in the classroom. Group processing occurs many times at the conclusion of an activity and seems unnecessary because the activity has been completed. The process of discussing what is working and not working is essential to the long-term growth of each student's self-assessment abilities.

Who most benefits from cooperative learning? Research results show that low-performing students and English as a Second Language (ESL) students are most positively impacted by the group interaction. At Pitsco, we have study results showing that at-risk students and students with individualized education programs (IEP) benefit greatly from our systems as well.

The results are no surprise, considering cooperative learning has been a foundational element in Spectrum System, Synergistic Systems, and Pathways Suites of Learning. (For more information regarding cooperative learning and Pitsco's systems, see related articles throughout this issue.)

In conclusion, how important is learning to work with others? Think about someone you work with daily whom, if given the chance, you would choose not to work with. What is the biggest issue you have with the person? More than

## Cooperative learning techniques

Interested in learning more about cooperative learning techniques? The following references are a good place to start:

- Roger T. Johnson and David W. Johnson, Codirectors, The Cooperative Learning Center at the University of Minnesota – [www.co-operation.org](http://www.co-operation.org)
- Robert Slavin, Director of the Elementary School Program, Center for Research on Elementary and Middle Schools, Johns Hopkins University – **Student-Teams-Achievement Divisions (STAD) and Success for All**
- Spencer Kagan, Kagan Publishing and Professional Development – [www.kaganonline.com](http://www.kaganonline.com)

likely, the issue is related to the interpersonal skills necessary to working and communicating effectively.

Ensuring that each of our students leaves school with strong interpersonal skills is essential for ensuring that employment opportunities will follow.

*"I will pay more for the ability to deal with people than any other ability under the sun."*

– John D. Rockefeller

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