valid and reliable third-party assessments that evaluate industry-based standards. Beginning with eight career pathways, Subject Matter Expert (SME) Panels were established to engage in a process of identifying or developing appropriate technical assessments. Expert panels included four to six representatives from secondary and postsecondary education, business and industry and CTE administration. Team members accomplished these tasks over four work sessions.

The first step was for the panels to identify existing assessments corresponding to the career pathway. The panels were charged with researching and evaluating current assessments, ensuring that exams were valid and reliable, and using 43 criteria to determine exams' usability. Some of the criteria included:

- Is the assessment based on a set of industry competencies or credentialing standards?
- What percentage of the competencies on the assessment aligns with Georgia Performance Standards (GPS)?
- Are tests current and is there a revision schedule?
- Are there appropriate testing security procedures in place?
- Are there appropriate accommodations for special populations?
- Can the test be administered online and through paper copies?
- Can the testing organization provide accurate feedback regarding performance for local and state reporting?
- Is the exam reasonably priced?

The final step was for the panel to review information gathered and choose to use an existing assessment in its current form or to modify it to better align with GPS. After an extensive evaluation process, SME panels identified eight end-of-pathway assessments for Phase I Career Pathways. Pilot testing for this first set of pathway assessments will be undertaken in January 2009. Exams will be offered in an online, multiple-choice format and will typically be 90 minutes in length. The process used for the first eight pathways also began again in the fall of 2008 with another set of 10 pathways. The formation of expert panels, research into existing assessments, identification of appropriate assessments and assessment piloting will be repeated each year to ensure complete coverage of all 54 of Georgia's career pathways within five years.

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Exams will be administered to pathway completers, which are those students who complete three designated courses within a career pathway. Local CTAE administrators will work with instructors to identify eligible students. Georgia's CTAE Resource Network, a clearinghouse which supports a variety of curriculum, assessment and professional development activities, will assist state personnel with test facilitation activities at the local level. The network will provide proctor training, access to online testing procedures, and a means of issuing and tracking certificates and licensures obtained by students.

While it is estimated that less than 1 percent of the state's CTE students will take technical skill assessments during the 2008-2009 school year, this number will increase as additional assessments are identified or developed. Hanson emphasized that the state hopes to offer students national certifications in as many areas as possible to increase the value of participation. Where those national certifications are not available, state certifications with industry endorsements will be developed. This will ensure that the skills students gain in Georgia's CTE programs will be clearly recognized and valued by employers across the state, which is one of the most important goals of any assessment system. T

See this month's Research Report on page 52 for a comprehensive look at the progress that states are making in developing secondary CTE standards systems.

FEATURE

By Sally M. McCombie

High School Child Development Courses **Provide a Valuable Apprenticeship**

PARENTING INSTRUCTION, A RESPONSIBILITY THAT HAD PREVIOUSLY RESTED IN THE HOME, **HAS BECOME PART OF EDUCATIONAL CURRICULA.**

THE CURRENT MEDIA ARE LADEN WITH REPORTS OF THE MANY SIGNIFICANT PROBLEMS FACING TODAY'S YOUTH. In fact, parenting has become a national topic of discussion. Today's parents are inundated with advice on how to address, intervene and prevent various problems and how to intervene effectively, if necessary. Professionals in numerous fields—including psychology, medicine and religion—have proposed tips and strategies. Various human service agencies and educational institutions offer workshops and seminars on parenting topics. Parenting instruction, a responsibility that had previously rested in the home, has become part of educational curricula.

Courses in child development are offered for high school students in Pennsylvania as well as in other states. Child development programs consist of educational courses that provide students with the knowledge of the physical, emotional, social and intellectual development of children. These programs are intended to enhance knowledge in child development, change behavior when interacting with children, and influence attitudes toward child rearing.

The author visits high school programs across the state of Pennsylvania to supervise student teachers in family and consumer sciences. She has observed much diversity in the way child development programs are structured. She surveyed 90 Pennsylvania junior and senior high school child development teachers in 2000 and 2001. Of the 86 teachers who reported that child development classes were offered, 72 percent indicated that the course was delivered using a combination of didactic instruction and supervised interaction with preschool children in a child development laboratory. Seventy-four percent of these laboratory experiences take place in the secondary classroom. The high school students study, design and implement age-appropriate learning activities to explore and understand the development of preschool children.

Learning in the Lab

A child development laboratory provides direct experience with young children. Most programs are part-day and children are recruited from the community to participate. Teachers have taken courses in early childhood care and development as a part of their certification requirements. They are skilled in the use of developmentally appropriate practices and positive guidance in the preschool setting.

While there is some variation across school districts, the secondary students typically receives instruction in these concepts, as well as in basic child development theory and age/stage characteristics prior to participating in the lab. During their lab participation, the students have experiences that frequently include observing, interacting with and guiding the children as well as planning activities, preparing the classroom and evaluating the day. The Pennsylvania Department

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of Education Child Development Laboratory Procedures Guidelines states that the mission of a child development laboratory is to provide high school students with the opportunity to observe and interact with preschool children in a model setting that utilizes exemplary practices. Laboratory experiences offer high school students opportunities from which they can learn and discuss real-life concepts related to child development. They work under the direction and guidance of the classroom teacher who models positive interactions with the preschool children. High school students learn in a manner similar to an apprenticeship where they become skilled at positive behaviors and also in the language of the skill. Furthermore, high school students become aware of what the teacher thinks about a task or activity, providing the opportunity for students to experience a cognitive apprenticeship. The teacher works with students individually or in small groups to plan activities, schedules and nutritious snacks for the preschoolers. After the preschoolers leave, the teacher and students discuss and reflect to determine what changes need to be made for the next session. As the semester proceeds, the high school students take on more responsibility for managing the preschool.

From a Vygotskian perspective, this is an ideal way for high school students to learn. The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition. A second aspect of Vygotsky's theory is the idea that the potential for cognitive development depends upon the "zone of proximal development" (ZPD): a level of development attained when children engage in social behavior. Full development of the ZPD depends upon full social interaction. The range of skill that can be developed with adult guidance or peer collaboration exceeds what can be attained alone. Participation in the child development laboratory provides a forum for high school students to act in adult roles and tie acquired skills and thinking abilities to the specific context in which they will likely need them later on in life.

Conducting the Survey

The author's survey included an open-ended question asking the teachers to list strengths of the child development programs in their schools. The most common response referenced the advantages of hands-on laboratory experiences with preschool children. The high school child development laboratories help students experience what it means to work. The experience presents authentic problems to solve and opens the world of career options in child-related fields.

One of the advantages listed by several teachers was an increase in student attendance. The high school students each have responsibilities in the lab. The classroom teacher, the preschoolers and fellow classmates depend on each student to be there and fulfill required duties. The students know that their attendance is valued and if they miss a class, someone else must do that duty. Some teachers require that the high school student assign someone to complete the tasks if they are absent, much like a classroom teacher must do in the event that he doesn't come to school; lesson plans, instructions and teaching materials must be available for the substitute teacher.

During one classroom visit, a classroom teacher relayed an incident to the author. On a day that one high school student was absent, a preschooler came into the classroom very excited. She had drawn a special picture for the high school student and was disappointed when she realized that the high school student was not there. Upon her return to school, the high school student learned that the preschooler was looking for her. This helped her to realize that her presence was valued.

Another explanation for the increase in attendance may simply be that students enjoy the hands-on experience that a lab provides. Students look forward to the class because it is something that makes sense to them, a place they can find success as a result of their hard work and dedication. A rise in self-esteem and a feeling of purpose were other advantages teachers listed in the survey.

Lab Experience an Advantage

In 2005, the author conducted a study comparing the knowledge of high school students who complete a child development semester course that combines didactic instruction with a child development laboratory to the knowledge of students who complete a non-laboratory, didactic instruction-only child development semester course. The experiment used a test that was developed for the study.

The subjects were 540 students from 10 high schools in Pennsylvania. Teachers administered the 50-item multiple-choice test that is aligned with the Pennsylvania Academic Standards for Child Development. The laboratory group scored statistically higher than the non-lab group. This suggests that a high school child development curriculum should include a laboratory experience where the high school students can apply the theories and concepts studied in the course. Interacting with preschoolers and planning activities is authentic learning. It is learning that is relevant and useful. T

ACTE Interested in exploring this topic further? Discuss it with your colleagues on the ACTE forums at **www.acteonline.org/forum.aspx.**