

NWCET Best Practices

Title: Department of Labor National Job Corps Center Information Technology Curriculum

Challenge

The goals of this project were to re-purpose the *Building a Foundation for Tomorrow: Tech Prep Information Technology Skill Standards-Based Curriculum Modules, Volumes 1 and 2* for the Job Corps student population, to train the Job Corps Center Staff from around the United States that would be using the curriculum, and to monitor the pilot programs at these major centers as the new curriculum was implemented.

Solution

A planning meeting was conducted at the beginning of the project to identify the elements to be addressed in the re-purposing of the Tech Prep Modules which had been written originally for a high school audience. The participants in the planning meeting represented the Department of Labor, NWCET, selected Job Corps Centers nationwide, the Air Force Research Laboratory (AFRL) for Human Effectiveness at Brooks AFB, and CompTIA - the trade association representing the business interests of the information technology industry. The following tasks resulted:

- Redesign the lesson plans around a 2-hour block format
- Remove home-work references or preparatory work or move them to optional assignments
- Separate module and lesson outcomes and lesson assessments into Technical , Foundation, and Employability Skills categories
- Develop additional instructor support guides/sheets to help in the assessment of skills/competencies (both technical and foundation)
- Expand the list of resources associated with the lesson plans, in particular including Internet-based materials
- Develop a broader range and selection of learning activities: 1) team versus individual orientation, 2) different themes/scenarios representing different vocations/trades, and 3) sophistication and availability of technical equipment
- Redesign the module sequence and structure: 1) to bring basic computer skills across a wide range of vocations/trades earlier in the module sequence and move more specific IT skills later in the sequence, 2) to bring the hands-on contact with computers earlier in the module sequence, and 3) to move the “career opportunity” module later in the sequence and expand the scope outside of IT

These changes reflected the diverse student population that attended the Job Corps Centers and the variety of programs offered by each of the individual centers. Despite different locations throughout the United States as well as different time allotments for the inclusion of the IT curriculum, the DOL administrators recognized the value in a consistent but flexible, well documented, standards-based curriculum with substantial support materials for any level of instructor expertise.

The first instructor training session for two days was scheduled six months later, with three additional one-day training sessions planned at three month intervals. This provided sufficient time for the completion of the repurposing process including JCC initial instructor evaluations of all of the new curriculum modules. The pilot period began immediately after the first training session concluded. (Note: Some of the more eager JCC instructors had begun to incorporate the unrevised modules in their lessons upon receipt for evaluation.) The original ten pilot sites were chosen not only for their economic and geographic diversity but also for having had an established IT course or an instructor with IT experience on their campus. These sites were:

1. Alaska Job Corps Center
2. Cascades Job Corps Center
3. Cleveland Job Corps Center
4. Hawaii Job Corps Center
5. Loring Job Corps Center
6. Northlands Job Corps Center
7. Penobscot Job Corps Center
8. Phoenix Job Corps Center
9. Shriver Job Corps Center
10. South Bronx Job Corps Center

Each training session provided the JCC staff with an explanation of the IT curriculum module development, hands-on computer experience using the lesson materials and resources, description of ways to modify the lessons based on the different learning environments, substantial peer-to-peer tutoring, and demonstrations by JCC staff who already had first hand experience using the modules.

Each pilot site was monitored monthly by DOL and NWCET to gather data for revisions and to document the development of additional teacher materials that contributed to the successful implementation process.

Outcomes and Benefits

The publication of the *Building a Foundation for Tomorrow: Preparatory Program in IT* was the result of the re-purposing process. The new curriculum consisted of twenty modules and the format design allowed for the instructor to pick and choose from the modules to create an accelerated course that could be accomplished in the first 60 days of student enrollment. The accelerated version, Express IT, has become most popular with the more than 100 Business Technologies vocational programs offered at the Job Corps centers nationwide. The AFRL, in conjunction with Comm Tech, Inc., completed a computer-aided instructional module called *IT Tutor* which correlates with the introductory computer lessons in the curriculum.

Presentation materials from the instructor training workshops were compiled for distribution on the JCC website. Additional samples of teacher and student work have also been gathered and displayed on the website.

Next Steps

At the conclusion of the project, four areas of additional product generation for the Job Corps IT program were identified from the experiences throughout the pilot and the feedback from the JCC instructors. These are summarized below:

Staff Development Program - a three-phase, on-going IT training program for the entire JCC staff at all centers. Level 1 would offer a Basic Information Technology class to introduce everyone to IT in the shortest amount of time. This would provide the JCC IT instructors an opportunity to practice and improve their teaching skills as well as encourage the rest of the staff to 'buy in' to the use of technology in their content or work areas. Level 2 would offer specific application training for IT instructors responsible for using/teaching that application in their courses and for other JCC personnel when appropriate. Level 3 would be a series of Teaching with Technology courses designed around each of the segments of the IT curriculum offered only to JCC IT instructors such as the pilot workshop segments.

Effective Teaching Strategies and Methods - establishment of a consistent method of capture, review and dissemination of successful lessons and materials on a regular basis through vehicles like the JCC website and newsletters.

Incorporation and Use of Video Conferencing Equipment - utilization of this technology that has already been installed could offer exciting opportunities for sharing instructional activities across all centers nationwide and could be a component of the Level 3 Staff Development.

Career Aspiration and Employment Facilitation for Graduates – a set of supplementary activities and materials developed for every vocation relating to student interests. Student mentors and achievements should be identified and publicized to encourage the highest aspirations in the career choices among the JCC IT students.

Key Issue

The key issue of this project was to provide the maximum flexibility in an information technology curriculum for multiple programs/time offerings with a variety of applications and very diverse populations in different parts of the United States.

Sidebar

Please visit the Job Corps Career Development Resource Center web site (www.jccdrc.org) for Information Technology to see the products, teacher-developed materials, student samples, and resources compiled as a result of this project.

Partners

DOLETA Staff

Job Corps Center Staff

Job Corps Career Development Resource Center Staff

Consultants from Comm Tech Inc