

Adirondack Chair Manufacturing Project

Scott Tobias and Estelle Sanzenbacher
Westminster High School, Carroll County

Students in the Advanced Manufacturing and Construction Class manufactured Adirondack Chairs for Bear Branch Nature Center and Hashawha Environment Center. This project provided the opportunity for students to practice the techniques of mass production. Students learned to solve problems, establish the flow of materials, and utilize a variety of tools to complete this project. The "chair" project was modeled after the Green Chair Project with the goal of creating public places for people to communicate with one another thus creating a sense of community. This same class also participates in Toys for Tots every year. Each year the students choose a project and build toys for the local Human Services Program to be delivered at Christmastime. The students love to make the toys and they are very appreciated in the community. Best practices:

Best Practice 1: What recognized community need was met by your project? Both environmental centers are utilized by a great number of people and they provide many educational opportunities for school students and general residents of Carroll County. The chairs provide a place for visitors and volunteers to take a moment to enjoy the gardens and park-like settings and help promote a sense of community in the parks. This project actually started from information provided by the county service-learning coordinator about the Green Chair project where students build chairs to encourage communication and community. The scale of that project was too large so through some brainstorming and contacts with environmental center staff we learned that there was a need and a desire to have more seating at the two environmental areas. The students were approached as they decide what they would be manufacturing and they liked this idea. (The prior year, students manufactured toy trucks for Toys for Tots.) In fact, the six chairs that were donated were so well received that the centers requested we make more chairs for them in the future.

Best Practice 2: How was the project connected to the school curriculum and curricular objectives? The purpose of this course is to teach students about material processing and management of components in manufacturing and production. Product development is emphasized through the study of resources, history, process, research, development, and production.

Best Practice 3: How did participants reflect on their experiences throughout the project? Digital pictures were taken of the process as the chairs progressed. Discussions about problems in production as the process was taking place and solutions to those problems were implemented. Students also reflect on the impact their projects will have on recipients at the conclusion of the project when the items are donated and taken away (Toys for Tots or environmental centers).

Best Practice 4: How did students take leadership roles and take responsibility for the success of the project? Students were responsible for the ultimate selection of this project and

the total completion of the project. They established the flow of materials around the room, the construction and finishing of the chairs.

Best Practice 5: What community partners were worked with on this project? Grant money was provided through Learn and Serve funds for some of the materials. Also, the students sold chairs to a variety of staff members in the school to generate additional project funds, as there was so much excitement about their product.

Best Practice 6: How did you prepare and plan ahead for the project? Students prepared by learning about the environmental centers and by choosing a pattern for the chair and then organizing their production line.

Best Practice 7: What knowledge and skills did students develop through this project? Students had to develop and demonstrate organizational skills as well as technical skills using mathematics and computer systems. They developed teamwork, foresight, and safety skills. They also learned about the community need they address, whether it was Toys for Tots or the environmental centers, and thereby explored the concept of civic responsibility.

