

# Lessons Learned

Coaching high school turning students

By Jim Rodgers



For the last three school years, five members of the Bay Area Woodturners Association (BAWA) have been coaching woodturning at two high schools in our area. Although many of us have taught introductory lathe and turning classes to adults and young students, helping teach in a high school shop is a horse of a different color.

The high school environment requires different thinking. Chopping lathe time into tiny bites—about 35 minutes for each class period—now that requires organization!

From these experiences, we have developed guidelines of what our chapter members could expect with most students.

Here's what has worked for us in setting up six-week turning sessions in the two schools.

## **Create enthusiasm, celebrate achievements**

Even though we teach knowledge and skills, our goal is a completed project. Regardless of how the first project looks, we celebrate the successes and evaluate the positive aspects. We invite student input on what they might do differently the next time.

The positive experiences throughout the year conclude with two successful open houses at each school. During the day, classes are dismissed so shop students can show their work to classmates. Then in the evening, parents come to the school to view the student work.

*Proud? You bet!*

## **One step at a time**

When teaching new students, we always start with spindle work to give students a basic understanding of the lathe, tools, and body motions. Additionally, this is method engages the new turner safely while assessing his or her ability to assimilate new techniques.

We get right to a project—no practice pieces. First up: a bud vase. Each student selects a pleasing profile from several models and begins turning down a square with a spindle roughing gouge. For the first week, we coaches sharpen tools.

We provide basic, simple, and brief instructions with a little background suitable for the attention span and the student's desire to "get on with it." We resist the temptation to provide more

information than they can absorb.

We plan to give instruction for one step, stop, deliver new instructions, and start again. For example, all of us helping at Las Lomas agreed in advance to teach just one method of turning a bowl interior (a three-part process to avoid catches). Additional methods of using the same tool may not be revealed until the second or third bowl project.

## **Defined work process**

Being clear seems easy, but several aspects that must be managed, starting with the coach's role in the classroom. This is clarified with the school's shop teacher before the semester begins. For example:

- What should I do if I see a student in another area creating a safety issue?
  - What is my role in the cleanup at the end of the class session?
- Before we started a new program

last fall at Las Lomas High School, Brad Adams, my turning partner, and I had four planning meetings (about 10 hours total) with Pat Blank, the shop teacher. During an additional work session, Pat turned a bowl with us.

Since all school students must receive a letter grade, we discussed how the turning unit would fit into the student's semester grade.

We also got the student's buy-in to complete the six-week turning rotation, which is an optional unit. (The shop teacher selects the students, based on interest.)

Because two turning coaches work with the same students, we assured the school district and shop teachers that we would be in concert on how we describe activities, which techniques will be demonstrated, and the specific steps in a project.

And to make sure we were on was on the same page, Brad and I spent four hours at the lathe on bowl project to make sure we didn't confuse students with conflicting instructions.

### **Address attention span**

We schedule two coaches at each school: one at the beginning of the week (Tuesday and Wednesday) and one later in the week (Thursday and Friday classes). The first member sets up the activity and expectations for the week and the second corrects, adjusts, and supports. Although we don't see each other at the school, Brad and I talk at least twice a week about our students.

Our experience has taught us to rollout new information, behaviors, and techniques in small, repeatable segments and only at the specific time that the

information is needed. Because students can forget information over a weekend, we target new skills to begin on Monday.

### **Be flexible**

Projects rarely go as planned. Holidays, teachers' meetings, and special assemblies interrupt the plan. Equipment breaks or is not available and students may choose to focus on another more urgent activity. Flexibility within the process is a must and requires constant communication between the shop teacher and coaches so everyone stays on schedule.

Planned activity must fit into the available time frames. In a 50-minute class, time for taking roll, announcements, and cleanup, leaving about 35 minutes in the average class period. This is worth repeating: Plan on 35 minutes of actual turning in each class period.

We've been reminded that students do will not progress at the same rate. The more advanced student may need to be redirected to another activity while others catch up. We've worked around this by providing advanced students with the opportunity to help with sharpening and equipment maintenance.

Brad and I feel very fortunate. Some students are spending their lunch hour in the shop, and the parents have embraced our program with fund-raisers.

Pat Blank, the shop teacher, couldn't be happier. Although he knew little about woodturning when he met us, he has now completed a one-week class at Crafts Supplies in Provo, Utah.

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### **Dan's story**

I live in Ashland, a small town in southern Oregon. When my own kids entered high school, I volunteered to help in the shop classes. I was received with open arms and started coming into the shop two to three times a week.

Most of the kids will just turn one or two bowls and the return to their other wood projects. But a few of them get hooked. Dan was one of them.

A couple of years back, when I first met him, he seemed a bit hard and angry—troubled, I assumed. He was not easy for me to work with. Dan demanded a lot of time, but I couldn't keep him off the lathe.

He began spending more and more time in the shop. Then Dan actually started showing up on time for class!

The technical skills he acquired with in that first year were amazing—salad bowls, balls, and hollow forms.

In an article for a local newspaper, Dan admitted that he had been close to dropping out. Today, he seems so much happier, and to watch him working on the lathe is a delight—all intent and so much willingness to learn. Oh, you should have seen that glow of pride after selling his first piece!

Dan's requests to be challenged and his acceptance of failure is very mature. I can now ask him to help others when they need help. And I can see how much respect he gets from the rest of the class. He even stands taller now.

Last year, Dan's parents bought him a small lathe, and he adds tools as he goes along. His senior project for graduation will be about turned work.

Will he become a woodturner? Who knows? It does not really matter. Dan is learning some things that will not be reflected in grades or SATs. The ability to envision an object, then create it. The pride of knowing how to use a tool well. The satisfaction of making something with his own hands.

There a few more students like Dan in these classes, and we make friends. We have something in common.

—Christian Burchard

# Back to School

Tips for introducing turning to your local school

By Jacques Blumer

As many woodturners and woodworkers are keenly aware, high schools shop programs are disappearing for many reasons, including lack of equipment, lack of funds, space demands, or lack of turning knowledge by shop teachers. Indeed, some schools have closed their woodworking programs altogether.

In 2002, the AAW awarded a \$1,000 Educational Opportunity Grant (EOG) to the Bay Area Woodturners Association (BAWA) to develop a turning program at Campolindo High School in Moraga, California. The program was a great success. As the word spread, the BAWA was invited to set up a similar program at Las Lomas High School in nearby Walnut Creek.

Here are some of the lessons we have learned from our youth training programs.

## **You don't have to be an expert turner or teacher**

You don't need to be your chapter's best turner or the best instructor to teach young students. You do need to be a competent turner and teacher, but other qualities are far more important. The ability to work with and relate to young people requires an easygoing personality, flexibility, a sense of humor, and lots and lots of patience. Being structured and consistent is important.

When more than one instructor is participating in the program, constant communication between teaching sessions is essential for continuity. "Winging it" isn't an option for these classes.

## **Find a leader**

Every program needs someone who has the vision, drive, and enthusiasm to make it succeed. You may have more than one willing participant, but you need at least one leader to assume overall responsibility.

Coordination, planning, scheduling and other support activities will demand as much time as teaching students. There will be critical decisions or occasions where a leader needs to take charge to provide a direction or develop a consensus.

## **Teach the classroom teacher**

Many certified industrial arts (shop) teachers are skilled wood-working instructors, but few we've met have lathe experience. Take time to train the teacher in private sessions. Encourage them to attend chapter programs. Involve them in club activities. Also remember that the AAW waives the registration fee for the annual symposium for all youth training instructors. And if your mini or regional symposium isn't already making a similar offer, it should.



## **Money matters**

Many high schools around the country have turning programs with lathes and tools that are 30 years behind the current technology. These programs need financial support so that instructors have the right equipment to teach with and students have the right equipment to complete projects.

At our two high schools, more than \$9,000 in lathes and \$5,000 in tools and other equipment have been invested in the last three years. Think about the combination of resources available: EOG grants, general and special school funds, parent clubs and individual parent donations, holiday fundraisers, support from your local turning club and grants from outside organizations. Be creative and think big.



## Get involved

I recently spoke to Christian Burchard, who volunteers two to three times a week at a local school in Ashland, Oregon. He said that he gets back so much more than he puts in that he can not understand why everyone is not doing something to prepare the next generation of turners. (On *page xx*, read Christian's story about one of his students.)

When we started our program in the Bay Area, Need Name said, "If we make a difference in one teenager's life, I will be satisfied with our effort."

After three years, we have achieved that goal and so much more. We encourage other chapters to get involved in the local high school shop program in every youth training program in the country.

Jacques Blumer  
(blumer@gateway.net) led one of the education panel discussions at the 2005 symposium in Overland Park.

## Observations from the shop class

### 1. Mind your own behaviors first.

- a. Make sure you and your student always follow AAW safety guidelines (printed in the front of your *Resource Directory* and available online at the AAW website).
- b. Don't demonstrate or do anything that you do not expect students to accomplish safely.
  - Don't take short cuts or work fast.
  - Always explain the "why" behind a technique.
- c. Dramatize body movements.
  - Student's movements and body positions are often too rigid and need to be expanded and enlarged.
- d. Require the students to keep the work area clean and neat with all tools and accessories put away at the end of each period.

### 2. Teach the ABC's of tool usage.

- a. **ANCHOR** the tool, rub the **BEVEL** behind the cutting edge, raise the handle to **CUT**.

### 3. Start with a spindle project.

- a. A bud vase from 4x4x11" maple or walnut stock is an ideal starting point.
- b. Get lathe speed up and tool manipulation speed down.
- c. Don't fear the skew chisel.
  - Put the skew to use after the spindle roughing gouge (SRG) for planing cuts.
- d. Teach decorative cuts with both the skew and the SRG.
  - The skew does not have to be harder to use and easier to teach and understand.
  - The SRG tends to get use in a scraping cut and up hill to the grain.
- e. Incorporate proper sanding techniques into each project.
  - Establish a sanding standard—no scratches.
  - Use all grits and new sandpapers—don't skip grits or scrimp with used abrasives.
  - With each grit, end turning off the lathe and sanding with the grain.

### 4. Everyone wants to get to turning a bowl.

- a. First bowls should be shallow; an ideal finished size is 8–10" in diameter and 3–5" in height.
- b. As skills improve, move onto deeper bowls.
- c. Due to the constant need to remove and replace the projects with each change of class. use faceplates and glue blocks rather than chucks.
- d. To help students grasp the goal, provide sample bowls with simple profiles.
- e. Focus on catenary curves—no reverse or under-cut curves initially.
- f. Rough-out a green wood bowl first before attempting to complete a dry wood bowl.
  - This is easier on the student and more forgiving.
  - It also increases the library of green wood bowl blanks to dry for the next semester.
  - You will need to start with a donated inventory of dry wood bowls.
- g. Be clear of your requirements for bowls.
  - No tiny feet.
  - Not larger than lathe capacity.
  - Positive tendon desirable for use on a glue block and faceplate.

### 5. Teaching sharpening is easy; getting students to stop and sharpen is hard.

- a. Use jigs and fixtures to assure repetitive and fast sharpening.
- b. Use setup guides to assure quick proper grinder setup.
- c. Keep the sharpening station near the turning area so it won't be avoided (you may have to work this out in advance of the semester).
- d. Teach students to assume that all tools are dull when entering the classroom (we do sharpen all the tools for the first week).
- e. If one student has more turning skills, he or she and ahead of others—they might be assigned to tool sharpening

### 6. Be sure all projects are completed, sanded, finished, and photographed.

- a. Give 8x10" prints to the students and/or retained in a gallery by the school's teacher.