

How and Why Students with Visual Impairments Should Take Shop Classes, such as Wood Work and Metal Work

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Introduction

Should students with visual impairments take shop courses? There are safety concerns, extra time and costs involved; even so, shop courses can increase self-esteem and provide skills that can lead to independence. The teacher and student must be properly prepared and have the right attitude. There are certain procedures, tips, jigs and special tools and technology that can assist student with visual impairments. Students with visual impairments should be encouraged to take shop courses.



Fig. 1. Armando Del Gabbo, who is totally blind, uses electronic enhancements such as the talking tape and talking colour unit in front of him for his woodworking projects but is not averse to using a simple woodworking jig, like the one he is holding in his hand, to assist with the construction

Roy Lewis, St. Lawrence EMC

Shop is Good for the Soul

Many things that we do today take us away from the concrete and the real; on the other hand the shops immerse us in the concrete and real. This contact with the real, the building or repairing of a real object brings great satisfaction and psychological well-being. The student does not need to look outside of themselves, to the teacher or others to find fulfillment, it is there right in front of them. The student built the project, they can see it, they can feel it, they can smell it and they know deep inside themselves how well they did. They will give themselves positive feedback. I did this! I can't believe I did it! Look how well it works! Does it ever look good. If someone else comes around and says similar things it is a bonus but not necessary. The pride, self-esteem and satisfaction are internalized and automatic; as Mr. Crawford says, "self-esteem"... is not imparted by teachers... "to students, as though by magic."



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Fig. 2. Tips about blind people from Dean Tuttle

- We don't have super hearing or smell or any other enhanced senses just because we're blind.
- You don't have to speak louder to a blind person. Just because we're blind doesn't mean we can't hear.
- I can't read minds.
- The blind don't have a "sixth sense" or extrasensory perception (ESP) or any other mystical powers.
- Don't pity us because we're blind. Respect us.

Integration/Equality

We human beings whether considered normal or otherwise are social and learn best and are healthiest when we are part of the community we live in. This is why integration seem to me to be an essential part of all human beings but in particular those with special needs. Often students with special needs are separated from the community because they are considered to be unequal to the task at hand. In order to be considered equal students with visual impairment must be considered equal to the task of doing shop courses. If a blind child is to be considered equal they must be allowed to take all the courses that the sighted student would. If shop courses are good for the soul of sighted students then they are also good for the soul of students with visual impairments.

Shop courses develop many skills in students.

- Planning and creativity
- Safe and proper use of power and hand tools/restraint
- Develop motor skills.
- Independence/team work/ask for help
- Patience/attention to detail
- Self esteem/pride
- Discipline

If we have the attitude that shop courses are too dangerous or they just can't do it, students with visual impairment could miss out on learning all these previous skills that were listed. When students with visual impairments are seen doing sports, using a table saw or welding, this is seen as amazing, because they are seen doing the things that sighted people do every day. If a sighted person says "that's amazing" what they're really saying is their equal to the tasks that sighted people are. Lets all work towards changing our attitudes towards people who have visual impairments so that our attitudes will not get in the way of full integration and equality within our society and community.

Safety

Not every shop teacher (administrator, parent) or every student with visual impairment will want to either teach or participate in shop class. The teacher must be comfortable with the fact that the student with visual impairment is capable of working in the shop safely. Just as there are students that are cited who are scared of the equipment in the shops or are not interested in the shops, the same is true with students who have vision impairments; therefore, in order to have a safe shop for all concerned, we must choose the right teacher and student. The best scenario would be to have the shop teacher trained by a shop teacher who has experience teaching students with visual impairments. Students must not be forced to do machine procedures that they are not comfortable in doing. As they become more confident they may use a machine that they were previously too scared to use. Class size should be smaller, some say 6 to 8 maximum and others say 16 to 18 maximum. With proper supervision and instruction students with visual impairment can operate machines safely.

Helpful tips and jigs

The teacher will have to put in some time and some money into providing special jigs to make things safer and easier for all the students. If the teacher buys these jigs costs will go up but they'll have to spend less time making them. Many of the jigs could also be made by other students to save you time. Don't make too many jigs or students will miss out on learning some skills. These skills may be needed to move on to a future job that has fewer jigs.

Some helpful things

- Braille tape for labelling things
- Hiline which leaves a high spot wherever it's placed
- Magnifying lamp with magnets on the base
- Music stand for a parts table

There are many tips and jigs in Mike Fanning's book as seen below in figure 3

If you're shop can afford it use the available technology provided with many electronic devices such as talking tapes or talking color units as used by Roy Lewis in figure 1.



Fig. 3. This manual is an excellent resource for the vision teacher, teacher assistant or the shop teacher.

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Preparation of shop, teacher and student

- Get to know one another
- Get to know the shop with the vision or mobility teacher when others are not around.
- Have student gradually get to know the machines in the shop. First by touching them with the power off and then touching them when the power is on.
- Have example projects available so the student can touch and get measurements from them.
- The shop must be extra clean. No wood sticking out of shelves are on the floor.
- Paint areas on machines where fingers should not enter
- Consider purchasing equipment that stops instantly when it makes contact with skin.

Conclusions

Students with visual impairments have the right to all the things that students with sight are allowed to do except for, at the moment, driving a car or flying a plane. The shop class offers skills and opportunities that cannot be achieved in other classrooms so it is important for us to try and integrate students with visual impairments in our shops. If we make use of all the student's abilities, tips, jigs and technology that are out there many students with visual impairments will be fully integrated and considered equals by their peers and society. This would be a step forward in strengthening our communities.

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<http://www.fineblindwoodworkingshop.com/>

For further information

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