Looking at lenses



he Worshipful Company of Spectacle Makers' (WCSM) new Glazing for Beginners course couldn't have come at a more opportune time for this Optician reporter. Glazing is a subject often talked about in the Optician office, as many of the frames we lust after. such as such as horn or super-thin NXT are often deemed the hardest to glaze. With this in mind, I started to research the process of glazing and what was involved. Shortly after, the WCSM and the FMO announced the launch of the new course. The foundation day course costs £150 and can be extended with six-week distance learning, resulting in a nationally recognised Level 2 Award in Glazing. The one-day component carries 12 CET points.

People with a real mix of backgrounds attended the course at Birmingham Optical, from experienced dispensing opticians to practice receptionists who had dabbled with glazing equipment and wanted to expand their skill set. As a complete beginner, I did feel a little intimidated to begin with, as everyone was at the very least familiar with the equipment in the room.

For the morning session, students are handed a pair of single-vision lenses and a metal frame. The aim is for the delegates to glaze the glasses themselves after a talk from dispensing optician Chris Bottomley. His presentation revolves around a handbook given out to delegates, which details the glazing process from start to finish. In the afternoon, the more advanced delegates start to look at glazing rimless spectacles and the others glaze an acetate frame with bifocal lenses.

The first stage of the process is verifying the job details. It might sound like a simple task and to a certain extent it is. However, getting details wrong at this stage could potentially ruin the whole job. Placing all the parts for the job, such as frames, lenses and order details in a tray together is important, as when you're working in a lab environment, trays will quickly stack up and it's easy to envisage mix-ups. At this stage it's also important to check the lens power on a focimeter, because the power shown on the packet might not always conform to the actual lens power.

Staying with the focimeter, the next task is to set the lenses to the prescription on the order. It's here that I began to feel out of my depth – somewhat understandable given the fact that I had never used the

Back to school

The Worshipful Company of Spectacle Makers recently launched a glazing for beginners course. **Simon Jones** reports





Chris Bottomley instructs the glazing delegates

instrument before. A mix of peeking over more experienced people's shoulders saw me through marking the optical centre – or so I thought. There are a few nuances to remember when marking and setting, and I fell foul of the classic '90 degrees out' transposition error, which was only picked up on at the final checking. To avoid mistakes like this, the course makes the recommendations for marking and setting procedures.

Next up is blocking. Once again, the notion of attaching a plastic block to a lens using a Leap pad might sound simple, but there are a number of important factors to consider. If the pad and block are not attached to the lens properly then the torque of the edging machine will twist the lens off its axis, so it's important to keep in mind that the more unusual types of lens coatings will affect the Leap pad's adhesion.

With the lens successfully blocked, we move on to the edging machine. The Nidek LE 1000 Express is a very clever piece of kit and watching it in action, it's easy to see why people think glazing has become a de-skilled process. However, the machine is only part of the picture and still requires operator familiarity. The machine scans the pattern of the frame and then edges the lens accordingly. All the operator has to do is input some details such as the horizontal and vertical centres and the bevel position and the machine takes care of the rest. It's very easy to get carried away with automated edging, but you are soon brought back into the real world when you have to hand chamfer the lens prior to springing in. Luckily tutors are on hand to guide you though the stage and ensure that too much of the lens isn't chamfered off.

Springing and fitting up the lenses is another part of the job which still requires dexterity. Inserting the lenses in the metal frames was fairly straightforward, but it's still important to use the correct techniques and avoid getting into bad habits. The acetate frames are harder, and great care is needed when heating these so the lenses can be inserted in the correct fashion.

Check out the workmanship

Now the lens is in place, it's almost time to sit back and enjoy the finished spectacles. Not quite, there are still some checks to be carried out. Checks are divided into two areas – workmanship and prescription and centration checking. To assess workmanship, look for scratches, failed coatings and carry out a stress test. A cross polariser is generally used for this, but students are shown a quick and easy alternative method using a polarised lens and liquid crystal screen. The test highlights the points where the lens is under the most stress. Points of stress are shown as white spots and should be as small as

It's quite possible that the first pair of spectacles I made would have been smashed on the London Stone by a member of the WCSM, but the second pair of acetate frames were much better, with even stress points and well-centred reading segments. So it would seem practice really does make perfect. This course is a good way of teaching the basics of glazing and being set on the correct path to practise in the delegates' own environments.

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