



## **Needs analysis - Manufacturing Jewellery and Watch and Clockmaking**

This analysis has been compiled by Grant Harrison as Chairman of the Jewellery Industry Registration Board of New Zealand. This Analysis has been formulated and is presented with the authorisation and assistance from members of the Executive of the Jewellery Industry Registration Board of New Zealand. All employers and apprentices were called at the time of writing along with all undertaking the Open Polytechnic of New Zealand's correspondence course in Manufacturing Jewellery. Some bullet points received have been used as received.

### **Industry Profile -**

#### **-Current description of Industry**

Current figures supplied from members indicate that the retail annual sale of jewellery in New Zealand sits at 1.2 Billion dollars. The demographic for the spend largely mirrors population with 35% being in Auckland ,57% being from Taupo North ,23% Wellington and 23% being the South Island. The South Island is the largest area but 20% of it's spend is in Christchurch so putting it on a close par with Wellington.

The Industry is serviced by a thriving Industry which is known as the Manufacturing Jewellery and Watch and Clockmaking Industry.

This has an emphasis, in regards to jewellery – on the design, manufacture and repair & restoration of consumer's items. In regards to watches – servicing, repair and restoration of timepieces including watches and clocks. The jewellery & watch Industry in New Zealand is based on in house apprenticeship, workshop training supported by distance learning.

This type of service required of Industry can only be attained by training in this environment and so Industry is supportive and recognises the importance of ensuring vocationally trained apprenticeships are available to be undertaken in the various workshops. Having been presented with three options by NZQA in 1996 and after the significantly polling of Industry from all known groups, it was decided that Industry would go with option 3 that being ; to take responsibility for the continuation of training itself as an Industry.

To do so, under the guidance of NZQA, an incorporated society the Jewellery Industry Registration Board of New Zealand (JIRBNZ or Jirb as its known) was formed. Its Executive is /was made up from all the major groups in Industry along with including representation for any "Independents". The society is funded by Industry and each member on the Executive must have the authorisation to speak on behalf of its groups members giving JIRBNZ the scope to represent currently approximately 700 members. This number does include Watchmakers .This number is a small and for the purposes of this analysis we will concentrate on the larger group being the **Manufacturing Jewellery Industry**. Some notes may be given in the form of bullet point responses.



## -Identification of Key issues e.g. impact of Christchurch, changes in technology, emigration/immigration

The Industry in Christchurch was obviously affected greatly by earthquakes that occurred. However businesses within the CBD have relocated within greater Christchurch.

Thus the jewellery and watch Industry in Christchurch is resilient and self sufficient just as it is in the rest of NZ. It is noted that new technologies are fully researched by the jewellery and watch Industry participants in order to ascertain the relevance to individuals and businesses.

Computer Aided Design (CAD) has become prevalent. This directly links through to 3D printing which is fast becoming the next industrial type revolution.

CAD is constantly updating and any course undertaken needs to be a living course that is able to change as technology grows. It is because of this JIRBNZs view is that separate courses should be undertaken by those in the workshops wishing for an in depth knowledge in CAD. Be this physical courses or one of the ever evolving and constantly updating online courses. CAD use should be understood and utilised, as it is and will become a most important part of the creative arts in almost all sectors, be it fashion or jewellery.

The use of lasers in the workshop is similar on a smaller scale. Lasers have been price prohibitive but as technology refines prices are dropping and many of the Apprentices today use lasers to assist traditional methods of construction.

Like most industries, the key issue for customers is credibility. That is the person working on the piece of say heirloom jewellery is qualified to do so. This also impacts on workshops insurance cover with insurers having the right to decline a claim should the workshop have entrusted the care of a particular piece of jewellery to an unqualified worker.

An advance in synthetics or fake gemstones has also evolved and workshops have particular procedures that are practiced to ensure that errors are not made here.

Emigration and or immigration has generally no effect on the jewellery and watch Industry in NZ. Again the main concern of immigrants is credibility. Credibility as to honesty and qualified to work on any jewellery entrusted to the jeweller.



## **-International benchmarking**

In recent years globalization has reminded us that being better today than we were yesterday, or being better than our neighbour, is not good enough. We must have a measureable way to compete with one another on a global scale.

The current apprenticeship system provides the most comprehensive training required to perform in the international market place. The system that is in place currently has been the Industry's Recognised Standard since the Apprentices Act of 1946 was introduced. It has evolved with time and the Prescription revised accordingly. With Trans Tasman recognition also coming into play in later years we have been conscious of international benchmarking and have used this information to prepare Apprentices for success in the global Market place.

Members of the JIRBNZ Executive are in regular contact with the JAA (Jewellers Association of Australia). In general the JAA are supportive of the New Zealand Industry's stance on Apprentice training. Their own system had become over institutionalised, losing Industry support and now discussions are that it may return to a more workplace, vocational based type training. This is similar to South Africa that after discussions were held in 2006 they returned to also supporting more of a vocational type training of their Apprentices.

Apprenticeship Training has taken place under the New Zealand Trade Certificate system in Rarotonga with a resident islander becoming Trade Certified in 2011.

## **-Future Developments**

The training of Apprentices will continue to evolve. This will be steered understandably by the coal face of Industry dealing with the requirements of Industry and utilising the advancement in technology.

CAD is a catch phase at the moment and many workshops have up skilled in this area or have employed someone specifically for that requirement. What is being seen however is similar to the casting era. That is with the development of lost wax casting many workshops set up their own casting plants. With advancements in equipment and specialisation occurring this was then largely taken over by the larger metal refiners who provide this procedure as part of their service.

We are now seeing the New Zealand casting companies moving into the supply of CAD generated castings. This has already happened in Australia. The turnaround time for Australian created CAD castings was about 10 days. This time will be reduced when dealing with a New Zealand firm.

Cad courses have also now evolved and will continue to do so into the future to be more covering all sectors of manufacturing. It will be utilised to create whatever is wanted.



## **-Workforce requirements – new positions /turnover**

The size of the Apprenticeship base required in New Zealand has remained fairly constant over the last twenty years.

Active Apprentices number about 40 at any given time. This equates to about 10 for every year of the four years training required and has proved to be a good number. This has been dictated mainly by employers who take on an Apprentice when required combined with as jeweller's age and retire.

There is a strong feeling amongst the trade to "give back to the trade". That is, for example, a qualified jeweller who takes over a retiring jewellers business or sets up his own often feels that they would also like to take on and train an Apprentice as they were taught.

This handing down of skills from one generation to the next has been taking place for centuries in the jewellery trade and is something most jewellers who trained as Apprentices do feel passionate about. When someone new comes into a workshop to work they are defined by if they have attained their Trade Certificate or not. There is always a clear distinction.

## **- Identify learners-including groups that don't access learning, Maori participation**

Employers generally look to take on someone to be an Apprentice who has attained level 2 at secondary school (year 12) then perhaps done a pre trade course at level 3 or remained at school (year 13) and progressed in the schooling system to cover skills that gains them level 3. The prospective Apprentice can then look to complete the requirements of their Apprenticeship to gain Trade Certificate that sits at level 4. There has been taking on of some in recent years that have gained much higher levels, up to diplomas, that then look to complete an Apprenticeship. This number is only small as employers generally find that once a student has covered over 2 years study at an institution they have become more interested in setting up their own brand or workshop than working for an employer.

We consider that the current Apprentices are of varied ethnicity including Maori. There are a number in the Industry that have a Maori heritage. The incorporation of Maori styled designs into the overall design of the jewellery piece proves popular in some areas.

The term of indenture of an Apprenticeship in Manufacturing Jewellery is 9000 hours. 1000 hours is removed if the Apprentice has level 1 so effectively the term of an Apprenticeship is 8000 hours.

Further reductions in the term to be served can be applied (up to 50%) in consultation and agreement from the employer, based on any recognised prior learning that may have occurred.



### **-Skill profile of roles**

Skills and profile of roles are clearly defined in the course outline of Trade Qualification Prescription 70 Manufacturing Jewellery NZQA and the Apprenticeship Training agreements and the Apprenticeship training requirements JIRBNZ. These documents clearly set out the requirements for the systematic training of Apprentices. These requirements have been developed on behalf of the New Zealand manufacturing jewellery Industry and approved by Industry.

### **Current Qualifications**

- range of current qualifications
- Usage of current qualifications- request us to TEC
- Industry feedback on graduates of current qualifications

The recognised Industry standard is for Tradesman to have been issued with their Trade Certificate in Manufacturing Jewellery.

Records of Trade Certificates issued have been kept since 1972 and are available to be viewed online via the JIRBNZ website.

Currently there are more specialised groups within the trade e.g. The Goldsmith Guild (in which a tradesman is issued with the right to use a goldsmith stamp etc). A prerequisite is firstly that applicants must be a Tradesman having gained their Trade Certification.

Trade Certificate is well supported and Industry feedback is that there is a strong desire to see it continue.

### **Future Needs**

#### **Supply and demand for skills and knowledge**

- Employer led - as and when required by jewellery and watch industry employers

#### **Identifying any barriers to accessing learning.**

- The size of the industry in NZ
- cost of materials i.e. that only workshop trained Apprentices are able to work constantly with or on materials of great value
- NZ post current delivers the distance training undertaken by all Apprentices throughout New Zealand. This could be compromised if some delivery areas are removed but JIRBNZ has contingency plans for delivery should this occur.



**The needs analysis should provide evidence of the above in order to answer the question:  
How do you know and what evidence do you have in support of the proposed qualifications that these are the right qualifications for your industry?**

All material referred to in this analysis including Industry consultation ,Prescription requirements , Apprenticeship Training Requirements, Apprenticeship Training Agreements and the register of qualified Trade Certified jewellers in New Zealand, are available for viewing on request.

If any is required please contact myself to do so.

Regards  
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Jewellery Time

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LLA Findings



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