



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 (including watches, clocks and watch and clock repair) 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 its 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 Watch and Clockmakers who at present count for 108 of these members. Current Indentured trade Apprentices number 39 with 7 of these being Watch and Clockmaking Apprentices.

For the purposes of this report we will conerntrate on the **Watch and Clock making sector of the 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.

Given the spread of workshops throughout New Zealand and because of the tight knit nature of the trade, Watch and Clockmakers were able to quickly outsource work while any repairs to shop spaces/workshops were undertaken and easily move workshops to outlying areas. There was a spike in the amount of insurance quote or "Estimates after Loss" that were triggered as a result of the earthquakes. The majority of clocks that did fall and were damaged were on the whole able to be repaired. The sourcing of parts with many clocks can be an issue and this is often the determining factor to if they can be repaired cost effectively. Some of the larger workshops have made a conscious effort to collect many parts from various supplies of days gone by and are cataloguing so as to supply via the internet. This will make the process of determining if there is a replacement part more efficient and moderate the overall advice of assessors as to such, in New Zealand.

Apprentices are trained to manufacture some watch and clock parts in the course of their Apprenticeship training. This is often at Industry Training Days that have been organised within the trade to ensure the transfer of skills from one generation to the next.

Computer Aided Design (CAD) has also enabled for the manufacture of some hard to obtain parts e.g. clock wheels and will be look to, to be utilised more and more in the future.

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 jewellery or watch and clock making.

Like most industries, the key issue for customers is credibility. That is the person working on the say heirloom watch or clock is qualified to do so. Many watches and clocks even though they may not have high value have been passed down through the family and each generation is keen to see that the appropriate servicing has been done to ensure the time piece can continue to be passed on. 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 to an unqualified worker.

In the case of insurance cover sentimental value is always hard to or near impossible to indemnify for. The proven safe guarding or cover for this is to ensure that the piece being worked on is done so by someone qualified to do so.

This also flows onto Brands (watches in particular) and will be covered more in benchmarking.

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 time piece entrusted to the Watchmaker. There has been a recognised increase in Christchurch to cater for the "Tradesman" who has come into to Christchurch for the rebuild. This is a particularly male dominated sector to which watches appeal as the main form of adornment jewellery.

-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). A meeting was held with the JAA President and Past President in 2008 in regards to watchmaking apprentices and the sharing of training facilities that had been developed in Australia but were not being well supported by the Australian



Industry. After discussions a recommendation was made by JIRBNZ that rather than send New Zealand Watchmakers across to the Sydney facility that it would be more result effective for Industry to update its DACUUM developed Training Record Books and continue to develop the Training Days held in New Zealand. This choice of pathway enabled the continuation of the “at the workbench” vocationally trained Apprentices and has resulted in the number of Apprentices resurging currently.

This is coupled with the requirements of international brands to work or service their branded time pieces. There is a three stage system in place.

1-Authourised dealer – who is authorised to service and carry out repairs to a brand of watch to enable for it to be covered under the factory warranty. Oils are supplied.

2-Listed qualified watchmaker – who is authorised to access parts of the brand but is not covered as a warrantee service agent.

3- Unauthorised – Has not reached the level of standard to be supplied with factory parts, oils etc. Time piece is void of any warranty in this case if it is worked on.

-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.

The ability to repair Watches and Clocks along with manufacture basic parts is as skill that will continue to be called on.

Both NZHI and WINZ have determined that the biggest threat to the industries survival was the aging of the workforce and recognised the importance of training a future generation.

Significant actions have been taken for the good of the trade with an Industry Working Group developed as a subgroup that has made significant inroads in this area. There is now only a small amount of work needed to align the material developed to the Watch and Clockmaking Prescription.

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 in New Zealand has increased over the last twenty years.

The increase in numbers can be directly attributed to the efforts of the aging workforce to address the non transfer of skill to the next generation. Many of the older Watch and Clockmakers now feel its part of their responsibility to the industry to “give back to the trade” and see that Apprentices are trained as they were fortunate enough to have been in their day.



The training given to Apprentices at “Training Days” and in some instances the cost of their flights and accommodation has all been covered by the industry groups so as to simply see the trade continue.

This handing down of skills from one generation to the next has been taking place for centuries in the Trade and is something most Watch and Clock makers 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 interest expressed by some in recent years that have gained much higher levels, up to diplomas who are then looking to complete an Apprenticeship but employers seem to favour someone who is relatively fresh to the workforce to invest their time into. This is also seen as a strategic part of future planning for a business.

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 term of indenture of an Apprenticeship in Watch and Clockmaking 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. Industry is looking at developing some shorter specialised basic skill courses and it is envisaged if any graduates of these short shop front type course can apply for this to be recognised should they choose to change career path to a more workshop based apprentice role.

-Skill profile of roles

Skills and profile of roles are clearly defined in the course outline of the Trade Prescription NZQA, the Apprenticeship Training agreements and the Apprenticeship training requirements JIRBNZ. These requirements are detailed in the DACUM developed “Watch and Clockmaking Training Manual” and the Watch and Clockmaking Training Record Book”.



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 Watch and Clockmaking.

Leading up to the issuing of Trade Certificate is the Issuing of the “Certificate of Due completion of Apprenticeship”. Once this is combined with a successful result of the Trade Certificate examination in Watch and Clockmaking, the issuing of Trade Certificate is enabled.

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

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.
- Changes in the global marketplace where the leasing of a watch brand rather than its purchase has taken root. The servicing of the lease watches can only be undertaken by qualified watch and clockmakers authorised to do so. This has warranty implications.
- There is a continuation of interest in “classic” or heirloom watches and the introduction of “Star” endorsed or designed luxury watches that will require competent watch makers.
- The making of Watches has become more accessible through CAD with two brands now being produced commercially in New Zealand. The continuation of developments into the future is gauged to see this continue.

Identifying any barriers to accessing learning.

- The size of the industry in NZ
- The ageing of the current workforce. (Average age is reportedly over 50)
- restrictions placed on some brands i.e. that only workshop authorised to work as an agent of that brand can also train Apprentices to work on pieces of high value
- Training days are held by Industry at various locations through New Zealand. The expense of attending can be an issue for some but Industry has been very generous to sponsor apprentices 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.

The JIRBNZ Executive includes elected representatives from the two main industries groups being the New Zealand Horological Institute (NZHI) and the Watchmakers Institute of New Zealand (WINZ) WINZ is the Watchmaking subgroup contained under the umbrella of Jewellers and Watchmakers of New Zealand (JWNZ). The Independent representative on the JIRBNZ Executive is also a Trade Certified Watch and Clockmaker.

This need for this qualification has been well discussed and is well supported. If any is required please contact myself to do so.

Regards
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Jewellery Time



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