



DEVELOPING PRAGMATIC LEARNING PRINCIPLES THROUGH EMBEDDING HUMAN-CENTRED DESIGN

ABSTRACT

This Master's project has been inspired by observations in learning and teaching experienced within my professional practice as a culinary arts lecturer at The Food Design Institute, Otago Polytechnic Dunedin.

Steve Ellwood

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¹ Note, Page numbers.

¹ Note, References with no page number have been retrieved from a web-site.

ATTESTATION

ATTESTATION OF AUTHORSHIP

Student Name: Stephen Ellwood

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Date of Submission: 1st October 2018

"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgments), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of an institution of higher learning"

Steve Ellwood

A handwritten signature in blue ink, appearing to read "Steve Ellwood".

DEDICATION AND ACKNOWLEDGEMENTS

This academic enquiry is dedicated to the Cooks and Epicureans who have dedicated their lives, passion and love of the whole food experience to facilitate learning and teaching in others.

I wish to acknowledge the following people who have made this thesis possible.

My family, Karen my amazing partner who has worked just as hard if not harder to allow me the time to discover and fulfill this Master's journey. My two kids Jaime and Liam, we will be spending more time together soon, whether you like it or not.

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And lastly, to everyone I have shared my culinary teaching journey with so far, students, co-workers, industry peers or mentors. As I can attest too on completing this thesis, this is only the beginning.

EXECUTIVE SUMMARY

The purpose of this academic enquiry is to map and reflect on my personal journey through a shift in professional practice. I have considered alternate pedagogical methodologies for learning and teaching within Culinary Arts and through the implementation of a blended educational approach was able to travel between a positivist philosophy where reason and logic form the source of knowledge along a continuum where interpretivism allowed learners and their facilitators to interpret their own actions.

These approaches, at their core, were a blend of pragmatism and human-centred design and were able to yield creative solutions to culinary design problems. These solutions were achieved through an iterative process based on comment and feedback from its end users - the consumers of the food and food-based experiences. The realisation that implementing more than one mode or method of learning benefits both learning and teaching and brings both facilitators and learners closer to critically explore solutions to any problem.

I started my Master's in Professional Practice midway through March 2017. Through research, co-operation from everyone involved and reflection both in and on practice, this Master's project has taken several twists and turns to the original thinking and question. I have drawn inspiration for my Master's research from within my community of practice, namely the Bachelor of Culinary Arts program, and specifically from its facilitators and lecturers who continue to push boundaries and question the entrenched canon of supposed culinary and educational doctrine.

This work will shine a light on a personal shift in practice from a solely behaviourist pedagogy, through my own Master and Apprentice model of practice and training, through to one that takes a blended approach to include both the structured behaviourist practice and the more constructivist technique where each learner constructs their own meaning differently based upon their own experiences.



*Figure 1. Preparing pig on a spit. 2016.
students' event. 2016.*



Figure 2. International

I believe employing a ‘human-centred design’ (HCD) approach will allow me to achieve this blended educational delivery as HCD gives structure through mapping process while allowing each student to create their own empathetic view of the problem or issue needing resolution.

This has put me in the position that I put my learners into every day... ‘don’t go to the end’ or don’t limit yourself by only considering possibilities from your own experience. Through not solely relying on my tacit knowledge or previous practice to complete a task but trusting another process (through new learning) I envisage will lead me to a positive result. For me this process is a little outside my comfort zone as I see myself as a pragmatic person who relies on my past experience to achieve, likes and works well in a structured outlined environment with rules, deadlines and set goals.

From what I have observed and participated in within our institute this personal shift in practice, although new and a little unnerving, I believe will add effectiveness to my teaching and valuable new learning for my students (Figures 1 and 2). It will result in developing pragmatic learning principles through embedding human centred design.

In the next section I introduce myself, my values and beliefs and how I came to be where I am today.

1 INTRODUCTION

1.1 WHO AM I?



Figure 3. Man, with question. n.d.

Before introducing my current professional practice, beliefs or values I will paint a short picture of who I think I am today, and where I draw my life and work influences from. My upbringing, I believe, has totally influenced who I am and how I see the world today although, the Master of Professional Practice has allowed me to explore many more aspects of myself than I was previously willing to discover.

1.1.1 FROM THE BEGINNING

Born and bred in Dunedin into proud, conservative Catholic, English and Irish stock, my families influence would completely dominate my behaviour and thinking throughout my formative years.

As far back as I can remember the family's ethos of manual hard work, hierarchical respect and religion (right or wrong) was drummed into us all with very little regard to individual opinion or consideration of new ideas. Not to say we were unhappy in any way, on the contrary the freedoms we enjoyed growing up I find sadly lacking for today's generation of youngsters. From riding broken down motorcycles, racing ball bearing trollies, climbing almost anything that stood vertically, and falling off, while never hearing anything of health and safety or political correctness. I remember vividly my father walking me through vacant land in Pine Hill shooting rabbits for their skins to add to my pocket money. Try that today, the Armed Defenders' Squad would be called out and your day would not end happily. The downside to this upbringing was the stifling of any sort of alternative view from our circle's norm. My grandfather would have

seen university as a place for hippies and bludgers that were incapable, weak or too lazy to get a real job.

Any proposed newcomer into our family would have had to pass through a Catholic religion grilling comparable to the Spanish inquisition. Considering even the food; the habitual Sunday roast was the highlight of the week, with the rest of the week's offerings peppered with Kiwi classics. Mince rissoles (I'm still a fan), corned beef and mustard sauce, a chicken if you were lucky and of course fish on Friday, (Catholic) fish and chips. Imagine what a decent amount of butter and some salt would have done to the mashed spuds, what twenty minutes less in the pot would have done for the broccoli or what a couple of slices of sour dough would have done to our toastie pies. Although, it would have been unthinkable to try something new or different... and we probably wouldn't have admitted it was any better a product anyway. All in all, a relatively strict but very happy upbringing and early family life, with almost complete independence to do whatever we pleased as long as it fell between the tram lines of Catholic conservatism, hierarchical family beliefs and a set of working-man principles.

This upbringing, I believe is why I felt so comfortable with eventually slotting into the culinary world. My entrance and acceptance into the culinary landscape mirrored my early years in that a very familiar, hierarchical power structure existed, a clearly defined set of truths were foundational in both family religion and classical culinary training. I also saw culinary skill as a craft, an artisan outcome and a chance to be creative, something I was comfortable with but earlier used the medium of wood and steel in my father's workshop to achieve. These similarities drew me into the kitchen culture and shaped my identity within the culinary community. Anthony Bourdain describes in his book *Kitchen Confidential*, the culture within a chef's world as being "a culture whose centuries-old militaristic hierarchy and ethos of rum, buggery and the lash make for a mix of unwavering order and nerve-shattering chaos" (Bourdain, 2007). I digress.

I attended Catholic school, both primary and secondary, until Fifth Form where I made the decision I was far too clever for this education system and I would enter the work force and make a fortune as something, yet to be determined. For the longest time, I was sure that idea would work out for me, as I have discovered through my life's experience, hindsight yields very little without considering more than one view or way of thinking.

1.1.2 WHERE I CAME FROM

After working in a shearing gang out of Otematata in the McKenzie country, driving a forklift in Auckland and taking on a two year apprenticeship as a welder in Thames I stumbled across a job that would introduce me to my lifelong career, my introduction to the hospitality sector that would set me on a path of exploring unknown intrapersonal skills, my love of food and cookery, the lifestyle of young people in hospitality and the formal training from European chefs and managers.

In the second year of my welding apprenticeship I had walked into the Kopu pub just outside Thames as I had done at least three times a week for the past year and a half, and overheard the staff talking about how short-staffed they were for a Friday night, I managed to wangle my way into their conversation and always being keen to make a little extra money, it wasn't long before I was knee deep in the washing up area of the Kopu pub kitchen. For the next six months, I welded during the day then cleaned dishes and pots, waited tables, poured beer and scrubbed out bins at night. What a ride... I was making more money at the pub, talking to people all shift, getting fed and even getting free beer. This was the industry I wanted to be involved in. This was going to be a new beginning.

So, I never made my fortune moving to Otematata, Auckland or Thames. I came out of these experiences at such a young age richer by knowing the future path I wanted to take while being very unsure of how to begin. I moved back home to Dunedin to take stock and to format my training pathway; at that stage I didn't even know it was called hospitality. I began to worry about the short amount of time I had worked in the industry. I also considered my perceived lack of formal training, but opportunities were everywhere as there were so many positions available in hotels and restaurants in Dunedin at the time. I did however worry about how my family and friends would react to my desire to switch careers. The latter was the first to rear its head as an issue and was probably the loudest. The future career I had chosen was seen as servile by some family members while my engineering friends were even more scathing, and many comments were passed regarding maybe a changing of my sexual orientation. In the end, this really didn't worry me too much. For the most part, their lived experience came from one view only, and that was never going to change. The one constant were my parents who supported me through whatever mad endeavor I wished to pursue, although never short of a dig now and then.

Entering the Dunedin hospitality scene was so very easy; numerous jobs were available in the late Eighties. I chose to work at the Shoreline Hotel, a hugely busy place with three bars, off-license,

a night club, a busy hundred-cover restaurant (that turned over tables two to three times) and accommodation. The Shoreline gave me the confidence to stay in the industry and pursue my goal through to management.

I had only worked in two establishments in Dunedin, the Shoreline Hotel and the Southern Cross Hotel. Although, at both establishments there wasn't a section or job I hadn't filled in for or timetabled on to.

I then considered a move from busy small-town hotel, from which I took all my foundational training, into the international client based resort locations, operated at the time by THC, Tourist Hotel Corporation of New Zealand.

My journey through the THC chain of hotels was a whirlwind of locations and change of positions through training. As too, the THC chain itself was evolving from government run hotels to ownership by offshore hotel chains, South Pacific Hotels, Carr, Travelodge and Hilton etc.

My movements and positions included:

- Milford Sound as a cocktail barman while moonlighting in the kitchens.
- Transferring to Wairakei Resort as Bistro supervisor and part time duty manager. Providing cover at the Grand Chateau as duty manager in Reception.
- Back down to Milford Sound and Te Anau THC hotels in a variety of positions, Reservations and Hotel Reception.
- Then to Auckland working at the Auckland Airport Travelodge as Duty Manager.
- Back to Wairakei resort as Receptionist then Beverage Manager.

With every hotel and position I added to a comprehensive skill set in both back and front of house.

This unfortunately came with the unhealthiest of lifestyles, of alcohol and drug abuse, which was rife within the industry at the time. The endless nights of little sleep and the working hours of which no other profession at the time would have tolerated. This was hospitality at the time, full of young people, transient and fun.

A transfer in 1994 to the Hermitage Hotel in Mount Cook led me take stock again and I decided to specialise, this is where my U-turn from management back to the kitchen takes place. Again,

advice from all directions come flooding in. “Why would you give up all that time, effort and training to cook”? That question followed me through my formal chef’s training for three years, the answer was again I felt it the right thing to do. Again, I sought out and was given the opportunity to complete an apprenticeship in professional cookery.

Having such an extensive background within hospitality at the time of taking on my chef’s apprenticeship allowed me to reflect on, not only previous kitchen experience but also personal management, financial management as well as purchasing and receiving management, quite a head start within my training.

Given the opportunity to learn from the European chefs and systems employed by the Hermitage Hotel gave me the classical foundations of my trade that were unparalleled by any other training possibilities. This entire five-year training time frame I consider as the major influence for how I operate and practice today.

On completion of my formal chef’s training at Mount Cook I was given the opportunity to shift location, to Christchurch. I worked again within the familiar, structured hotel environments of the New Centra Hotel, the Chateau on the Park and the Christchurch Convention Centre. The next offer of employment came from someone I had previously worked with. This was an offer to take a Chef Manager position at the Christchurch Public Hospital. While initially unsure of the move the learning experience was indeed worth the time spent. Learning to balance enormous budgets against food and wage costs, catering for not only cyclic patient menus but also café outlets, internal functions, 24-hour shift requirements and vending machines. A massive operation where delegation was key and system clarity essential. Here, as within all my employment positions I had some very capable and wonderful mentors guiding me through my learning and training. Does anyone stand out... probably not, I can say there have been many influences but I consider I have tried to take the best from several mentors and colleagues and model my practice from theirs.

By this time my partner and I have two wonderful children, we have just finished renovating our first house and life seems to be running on fairly smoothly. I then find an advertisement for a Hotel Executive Chef at the Mercure Leisure Lodge in Dunedin. We had been discussing future schools for the children and wondered how we would manage the zoning rules in Christchurch. We weigh up the pros and cons and decide to apply. I am successful with the application so we sell our house, and move to Dunedin. The hotel Executive Chef’s job is as expected, normal routine, budgets, functions weddings etc. I really do feel very lucky to have been successful with

this position but there is something missing. I think it was the pace, as chefs we need challenge, we crave pace, and I want to be pushing my boundaries in creativity and organisation. This position lacked the spark to keep me interested.

1.1.3 WHERE I WORK NOW / WHAT I TEACH

Then out of the blue an ex-tutor of mine had heard I was at the Hotel and asked me if I would consider delivering a few practical classes at the Dunedin Polytechnic. Me... a teacher? Here is the next and current layer of my journey. Once eloquently summated by Chef Tony Heptinstall, "I'm no longer trying to be a cook that teaches, I'm now a teacher that cooks" (personal communication, T. Heptinstall, 2018).

I started working at the Otago Polytechnic in a part-time capacity delivering the odd class to a part-time cohort of entry-level cooks. A fulltime vacancy became available shortly after and I was employed fulltime as a junior lecturer. This position gave me the opportunity to deliver the full-time program to level four culinary students under the guidance of Chef Adrian Woodhouse.

Under his and all the cookery team's tutelage I have been able to progress through to the position I currently hold, Senior Lecturer on the Bachelor of Culinary Arts.

Moving from a set curriculum based delivery, which has been in place in one form or another since the early 1970's through to the design, project based delivery I work with today, has required a shift in thinking and practice. I personally struggle with the tension between the traditional "training" methodology of 'master and apprentice' and the freedom that design based practice allows. I feel I need to find balance between recognising whose learning it is and what our learners wish to achieve.

Then, what knowledge can we facilitate so our learners can function within their chosen community of practice. *Do we currently facilitate learning rather than instruct through rote based practice?* This is the shift between a behaviourist approach in traditional culinary education and the Bachelor of Culinary Arts constructivist paradigm where the learner creates or constructs their own learning. If we interpret what our wider industry is saying, we need workers with transferable skill sets, we need flexible thinking and modern approaches to new experiences in food and food experience. This is what we are trying to achieve with a design based delivery.

1.1.4 EVERYONE WANTS PROGRESS, NO-ONE WANTS CHANGE

What are the major challenges, problems or issues the culinary industry faces today? How can education find solutions to these problems by preparing the next generation of learners to help resolve these difficulties? The historical status quo is accepted by a large number of educators within our institutions, but, there is a call for change from within the culinary community itself.

We need to look at our current learners from their perspective to understand how to connect with them and keep their interest in learning. Today's generation of students, iGen, Gen-Z or late Millennials, have a different set of priorities to previous learners. "Gen-Z are growing up in a VUCA world – volatile, uncertain, changing and ambiguous. In such a world, there are no certainties and no absolutes. Everything is fluid. As a result, Gen-Z identity is fluid, and change and diversity are championed" (Twenge, 2017). This generation are digital natives that live on internet time. The world of Gen-Z has been shaped by mobile digital technology. 'Millennials' have been dubbed the connected generation, this would shift Gen-Z into the hyper-connected zone.

The Gen-Z considers access to information a simple and immediate exercise. Gatherable over any number of platforms through many forms of delivery, text, podcast, video or chat. Where the lack of information reliability from the internet can be an issue, the vast amount of choice can give a comparison that may show the information that is being accessed to be consistent.

In fact, there is an argument that Gen-Z can 'virtually' access the recognised experts in any field, at any time that suits their learning, usually for free.

This is where facilitation and constructivism rather than dogmatic direction becomes relevant in education. Where will the wants and needs of our learners leave the culinary training institutions into the future? As our students are fluid and adaptable to change so we have to meet and exceed their expectations by not restricting or constraining learning. Using the tools of today, digital communication, human-centred design and flexible on the job and prior assessments of learning, we will be our stakeholders' first choice to deliver practitioners who have the required transferable skills our industry demands, and first choice of our learners as knowledge facilitators, enabling them to learn how to learn.

The 'Who am I' section has summarised my early years and given a view to the pathway I have followed to get to where I am today. The next section sets the scene for traditional culinary learning, its roots, and the beginnings of change in its pedagogical delivery.

2 THEN AND NOW: SETTING THE SCENE FOR CULINARY LEARNING TODAY

The once entrenched dogma and instruction of classical culinary practice used a hierarchical knowledge and power framework to control and disseminate its own reality of what should and should not be quantified as valid or true.

I consider myself a product of this classically trained, Master-Apprentice, Eurocentric ‘culinary gardé’ that until recently would regard change or transformation in food preparation, service or experience as simply a fad or gastronomic ignorance. A blinkered or constrained view of culinary practice has long been perpetuated by the culinary community itself for reasons of self-legitimacy and the retention of its own knowledge and power. It is my view, that so many societal and technological changes have taken place in the last two to three decades that change in educational practice is not only inevitable but necessary to retain our new learners’ interest in our culinary community.

Jonathan Deutsch, a lecturer in the Culinary Arts at Drexel University discusses the Master-Apprentice model of learning and claims that it devalues the learner’s input and thereby any individual or creative thinking processes, as the learner needs only replicate a required dish to a lecturer’s approval. He states, “We produce skilled technicians who can replicate a menu with efficiency and consistency but who struggle to adapt when the unexpected happens—a missing delivery, many more guests than forecasted, a problem with the gas or electric. And in the food service industry, the unexpected always happens” (Deutsch, 2011).

2.1 THE MASTER / APPRENTICE STRUCTURE OF LEARNING

The master/apprentice model of knowledge transfer in both learning and teaching has its origins in the ‘Association of Guilds’ system. The guilds were associations of merchants and artisans formed to monopolise their professional interests, protect their trading practices and grow their wealth by expanding their businesses. Growing in acceptance throughout the 10th and 11th centuries within Europe, the integration of guilds became recognised and legalised into regional governance. These medieval guilds fell generally into two types, Merchant guilds or Craft guilds. Merchant guilds were wholesale or retail sellers of various classifications of goods.

Merchant guilds often controlled, or were influential members of their town or city authorities often controlling their regions trading practices and pricing structures.

Craft guilds were profession-specific associations comprising the Master artisans, Journeymen, Craftsmen and Apprentices of their given trade. Industries that fell under these craft guilds included blacksmiths, butchers, bakers, builders, stonemasons, and cooks (Britannica, 2010).

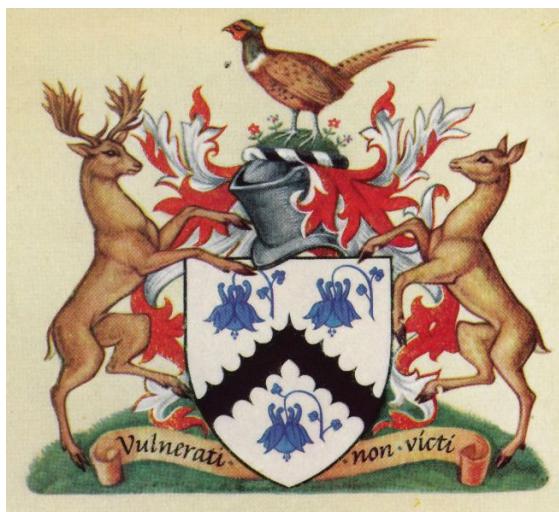


Figure 4. Worshipful Company of Cooks' Guild Crest. n.d.

As the guilds' influence grew in popularity and size, guild membership ensured outside merchants or traders paid a fee if they wanted to participate in local trade. The guilds also became overseers of their association's future practice, regulating and guarding their members' commercial and training practices while ensuring those activities catered to the needs of the region's commercial growth and prosperity. Guild dominance continued through to the 16th century where guilds controlled the supply and sale of goods such as cloth, food and iron works through to candles and wine. This also included most other staple commodities, thereby achieving a monopoly over the local commerce. The guilds held a firm grip over the exclusion of innovation or innovative process hindering any implementation of free trade, technology transfer or individual business development.

Accusations of nepotism and unmerited awarding of qualifications raised questions of the validity of the guild process. The guilds managed to persist through the Middle Ages by redistributing their influence, power and profits to the politically powerful merchant guild members. The Reformation of the late 16th century and the Renaissance in the 17th century see the gradual decline of the guilds over time with influences such as humanism, educational reform and modern technologies including mass printing, contributed in making some guilds less important.

This decline came through capitalist entrepreneurs banding together forming even larger, powerful and more prominent commercial companies.

The Enlightenment years (late 1700's through 1860's) saw government decrees abolishing craft associations through France, Germany and Italy while pockets endured and grew in Britain and Spain, indeed flourishing in India, China and Japan.

2.1.1 THE APPRENTICESHIP MODEL

Apprenticeships were the basic foundations of a craft guild. Apprentices secured the continuity of the guild's individual practice, its traditions and the continuum of its membership on which the guild depended. Although the guilds themselves diminished in popularity from the mid to later 19th century the Master/Apprentice model itself remained popular throughout, and still lies at the root of apprentice training today. As Stierand, Dorfler and Lynch (2008) note in their discussion paper 'The Role of the Master-Apprentice Relationship', "the master-apprentice relationship is highly asymmetric in which the god-like Figure of the master chef imposes itself on the subdued disciple, who must accept that the master's word is the law". Through the master/apprentice relationship the apprentice hopes to gain specific complex knowledge and practical skills. These qualities are built over time through such concepts as structure, repetition and the unique language of the craft. Stierand et. al. also consider the master-apprentice relationship increasingly disappears in the modern world. One reason might be the ever-present ideal of absolute personal freedom in today's society, which is seen as non-compatible with the Master-Apprentice relationship and demands that the apprentice accepts that the master's way is the one and only. (*ibid*).

As someone who as an adult committed myself to the traditional apprentice pathway and now facilitates culinary learning through a designedly more project-based approach I consider myself to have a unique perspective and opportunity to develop a more contemporary approach to teaching and learning that can be both pragmatic and end user focused. As Escoffier himself notes in his work *Le Guide Culinaire*, "Others will come ... tomorrow who will take on our work, make changes to it and transform it to meet new needs, needs that we cannot suspect today, just as we did the same to modify the work of our predecessors" (Escoffier Online, 2018).

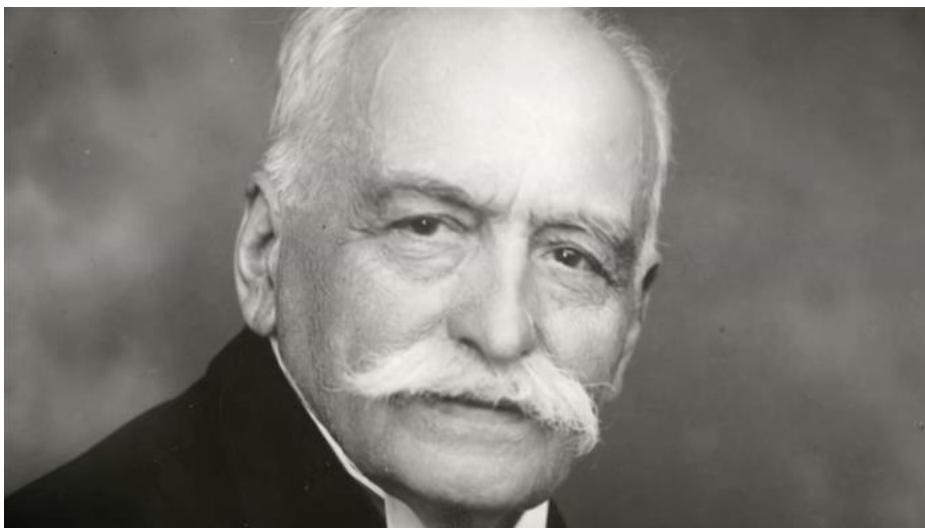


Figure 5. Georges Auguste Escoffier. (Escoffier Online, 2018).

2.1.2 THE GATEKEEPERS OF THE CANON

The Chefs Canon

The modern canon of culinary theory methods and process, has at its core the traditional early 20th century hotel training principles and measures. These principles base themselves on Escoffier's *Le Guide Culinaire* (1907) and used his work as the point of reference throughout western (French based) cuisine in its training and knowledge transfer. This seminal work started by organising kitchens into the "brigade de cuisine system" a hierachal staffing system which separated the kitchen into sections, as depicted in Figure 6, working on individual parts or preparations of a whole menu or menu's production.

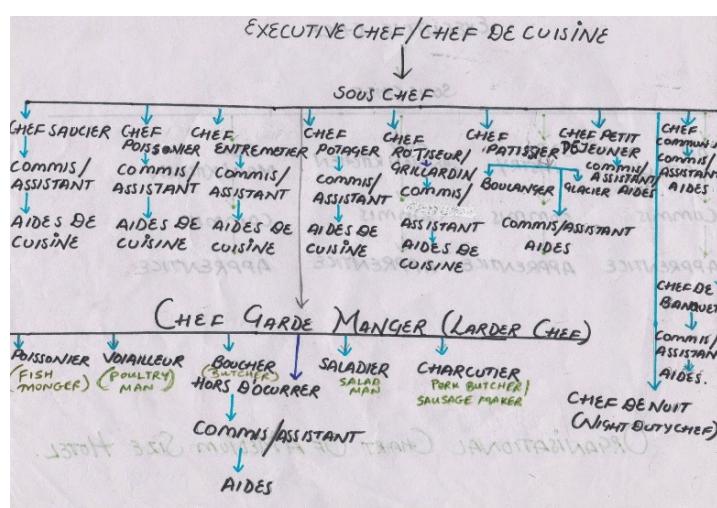


Figure 6. Classical brigade. Albuquerque 2014.

Escoffier's innovative hierachal platform was greatly influenced from his time spent in the military. Due to the scale of staff and product needed to operate the large hotel restaurants, dining halls and new ocean-going liners of the time, his system incorporated early time-in-motion study enabling efficiencies in preparation and service delivery times. His work, although modified for today's operating landscape, remains relevant in kitchen management and design. Auguste Escoffier's work was held as the most popular and widely implemented western culinary canon.

His work was recognised for simplifying and codifying the complex recipes and cookery methods of his culinary mentors, namely Marie-Antoine Carême (1784-1833). From the early 1900's his 'brigade system', recipes and methods were implemented throughout Britain, Europe, and the Americas and spread into the Francophile influenced kitchens worldwide which still exist today.

The Escoffier 'canon' remained and still remains accepted as gospel to the culinary hierarchy in many food establishments, especially in the more traditional European influenced training institutions, hotels, restaurants and food outlets. The gatekeepers of the accepted canon are the same training institutions, hotels and outlets that claim innovative and creative process but only as far as not to step too far from the recognised canon, law and mantra. This entrenched tradition can, as I can personally vouch for, perpetuate a single mindedness and constrained view of what may be possible in new and innovative outcomes and processes. On the other hand, without some point of reference, new ideas, recipes or processes may be fruitless practical exercises with no tangible artifact except for the personal learning that comes from a less than satisfactory outcome.

The proliferation of food in all forms of media has given rise to a new variety of knowledge and information gatekeeper. One that may be seen as filtering a biased view on what should and shouldn't be accessible to the masses: the Food Editors. Adrian Miller considers this new breed of gatekeeper in an opinion piece where he states: "These gatekeepers determine what content will go in magazines, newspapers, radio shows or websites; they decide which book manuscripts to purchase, publish and market; they book speakers for events, and approve projects and book appearances for television shows" (Miller, 2017). These gatekeepers differ in perspective from the traditional culinary profession based gatekeeper where an entirely different set of criteria determine their actions. Where the traditional control of the culinary canon depended on chefs and instructors disseminating their knowledge and customs within their community of practice. This supply of arguably a more contemporary and relevant knowledge base is influenced by media ratings, commercialised profit and aesthetic popularity.

So, is there a ‘canon’ that commands the culinary truth? Is it the traditional hotel process of a six-thousand-hour apprenticeship with the focus on rote learning the traditional canon and mirroring of the master’s process? Is it the modern café culture which has a flexible learning process where the actors have a versatile skill set enveloping all facets of their particular food outlets concept? Is this knowledge too limiting or does it allow for more focused learning and refinement of skills? Or is it the full and immediate access of information, demonstration and opinion that the myriad of digital platforms holds. Again, Escoffier writes, (cited in Deutsch 2011, p.4)

If the art of cookery in all its branches we are not undergoing a process of evolution, and if its canons could be once and forever fixed, as are those of certain scientific operations and mathematical procedures, the present work would have no raison d'être.

Are there in fact any real gatekeepers at all?

2.1.3 TRADITIONAL CULINARY LEARNING

I have always followed the mantra ‘you can’t manage what you can’t measure’ so moving from industry (professional cookery) into teaching was, for me, a fairly easy transition to make. When I started as a trades lecturer at the Otago Polytechnic in Dunedin we operated under the rules and regulations of the New Zealand Qualifications Authority (NZQA) and assessed learners over several levels against the accepted unit standards as outlined by the NZQA.

Whether these accepted standards were relevant to stakeholder needs at the time is another conversation; we operated within these guidelines which gave quantifiable assessment criteria to grade students against, individually subjective as they were in regards to the assessment of food. On a path where countless students had achieved before, and indeed myself, we herded our learners through a series of bit-sized unit standards or competencies based on the Francophile, Escoffier tradition from how to hold a knife, or prepare vegetables matched to the French terminology (brunoise, julienne and mirepoix), as shown in Figure 7.



Brunoise

This is a very small diced cube, sized between 1-3 mm square. Often used as a garnish for consommé. Typical vegetables used are carrot, onion, turnip and celery.



Macédoine

This is diced cube 5 mm square. Root vegetables are suited to this cut, e.g. carrot, turnip, swede.



Jardinière

A short thin baton or stick, about 2.5 cm long and approximately 3 mm wide and 3 mm thick. Size may be varied depending on end use.



Baton

Sticks of vegetables approximately 5 cm long, 5 mm wide and 5 mm thick. Used as an accompaniment.



Paysanne

Various thin shapes such as squares, triangles, circles or half rounds. In order to cut economically, the shape of the vegetable will decide which shape to choose. All are cut thinly, about 1-2 mm thick.



Julienne

Long thin match-stick shaped pieces about 4 cm in length. Vegetables cut julienne are mostly used as garnish.

Figure 7. Vegetable cuts. (Vegetables.co.nz, 2018)

We replicated the mother sauces and learned to regurgitate their derivatives which may or may not have ever been used in a cook's career. These competencies were grouped into commodity sections where a lecturer would demonstrate their practical use. The learner would then attempt to replicate the lecturer's result, being assessed as to how close the learner's finished product would be to the demonstration. This Master-Apprentice methodology for training novice chefs was applied to the vast range of 'classical' culinary preparations and ingredients then drip-fed via rote learning, repetition and assessment.

I would consider myself a product of this traditional approach. There was no room for any creative license within these standards as the traditional canon or dogma of culinary outcome had to be observed to be seen as valid. This is ironic as the father of the modern kitchen, August Escoffier himself reflected, "Cookery should be a reflection of the society it serves and as such it should evolve and progress with the needs of that society" (Escoffier, 1979). He also wrote on the classical interpretation of food, "We must respect, love and study these great works... we ourselves should seek out new approaches so that we too may leave behind us methods of working that have been adapted to the customs and needs of our time" (Escoffier, 1979, p. 14)

One issue with the traditional culinary learning process lies in the dishes or commodities context. If a learner learns how to create an emulsified sauce hollandaise, well and good, they achieve a competency against that one item. To add value to this framework we now facilitate a student's

learning into understanding how emulsification works (the basic premise of emulsifying liquids that do not normally mix together) having the end result that the learner has the tools to emulsify many variations of an emulsified sauce, not just a sauce hollandaise.

2.1.4 THE IMPORTANCE OF ORDER AND SYSTEMS IN CULINARY LIFE

When I went through my formal training period as a culinary apprentice the time frame was six thousand practical kitchen hours (three years) alongside yearly twelve-week block courses at culinary school. My apprenticeship was a total emersion into the traditional canon of culinary craft, taken to the extent that service time, (when the kitchen started taking orders for the restaurant) was spoken in the traditional French or German. (I learnt very early on that idiot meant the same in German as it did in English).

My training through this Eurocentric culinary apprenticeship shaped the way I approach not only duties in the workplace but its influence spilled over into everyday life. ‘Mise en place’ or ‘everything in its place’ is one of the first traditional kitchen tenets every culinary apprentice has drummed into their schedule. Mise en place denotes your preparation prior to service. Preparation with physical products, organisation, space and movement. Dan Charnas states that ‘mise en place’ may be seen as both a philosophy or what chefs believe, and a system, what chefs do. He classifies mise en place as a system of organisation designed to maintain systems of organisation (Charnas, 2016, p. 271).

From my personal experience and through many years of observation, total immersion within the *philosophy* of mise en place may result in bolstered personal discipline inside and outside the kitchen or work environment.

This may be realised, in part, through reaching the accepted knowledge and practical skill level expected by one’s community of practice or the traditional canon. On the other hand, this total emersion may also have the negative effect of producing an insular or blinkered view of the world where problems can only be reacted upon or rectified from a person’s own lived experience or from, ‘inside of the box thinking’, devising no solutions from ‘outside the box’.

For myself, the learning of my chef’s craft steadily built over time due to position transfer and opportunity. Stepping from apprentice, up and through the hierarchical ranks of the traditional kitchen brigade. Apprentice, Commis Chef, Demi Chef, Chef de Partie, Sous Chef and finally Executive Chef, highlights the pathway through the traditional promotion ladder. As with all craft,

competence and clarity takes time and dedication but once achieved both intrinsic and extrinsic motivators may be realised.

I have outlined my progression through the immersive world of culinary training, which I always found comfortable, structured and safe, through to my current place within culinary education, fluid and changing. I take a leaf out of Escoffier's book, *Le Guide Culinaire*, where he said, "we need to leave behind us methods of working that have been adapted to the customs and needs of our time" (Escoffier, 1907, p. 12). Delivering on our Bachelor of Culinary Arts degree program has allowed me (ever so slowly) to consider how we all learn and how best I can add value to the program, the students and my own learning. As outlined in my record of learning I am a very pragmatic person who relates well to a practical, structured context easier than the conceptual environment. So why fight it? I have come to the conclusion of myself that there should be balance between the innovative, creative and conceptual thought process and the pragmatic structure and (in our language) 'mise en place' within food design.

The previous section has highlighted the traditional learning pathway with a view to introducing a change in practice and facilitation for the benefit of all stakeholders.

3 INTRODUCING PRAGMATIC HUMAN-CENTRED DESIGN INTO MY THINKING

IDEO.org believes that as long as you stay grounded in what you learn from the people you are trying to serve, using a human-centred design approach can create solutions to problems, issues or help create new resolutions to any challenge (IDEO, 2015).

When defining system and service issues or problems we consider the pragmatic, real world requirements of consumers while maintaining a human-centred design approach. Through a reflective process we consider how the use of human-centred design impacts on learning and teaching. Using these reflections, we build and develop further learning systems and processes to meet the demands of evolving education in food delivery systems. Throughout my master's research it has been my intention to meld a new and innovative learning and teaching project that I have led into my delivery.

This project would allow my thinking on and facilitation of pragmatic, human-centred design to be highlighted. The vehicle at the core of this research was to be the Food Design Institute's latest innovation in culinary design and experience, a Food Truck. In April 2017, the engineering department at Otago Polytechnic put out a call regarding possible ideas for projects for their engineering programs.

Staff at the Food Design Institute had talked about the possibility of a "food trailer" for some time and this callout seemed the perfect opportunity to open the discussion. We met with the team from Engineering, pitched the idea, sourced funding which (thanks to our Head of School and CEO's support) was approved and the build went ahead with the Level Three Engineering cohort and staff taking on the project. The discussion led us to include Engineering for the build as part of their second semester major project; Electrical to join in as part of their students' projects; Design to draw up the computer-aided drafting (CAD) required. Marketing having input with all the possibilities they could offer.

As well of course the Food Design Institute as a whole benefiting from a portable and sustainable (in every aspect) new commercial outlet. The cost of such a build outside the Polytechnic would have been almost untenable, but utilising all four school's expertise and program delivery into one large project was just the sort of thing the Polytechnic itself was often asking for and was a collaborative outcome on many levels. This form of customer delivery is very contemporary at

the moment and I recognised this mode of delivery as a way to develop systems in human-centred design for the food design papers I lead.

As things often do, ‘the best laid plans’ and all that, a curve ball was thrown only days out from starting to gather some data on how pragmatic HCD could benefit or hinder learning through a food delivery systems context, utilising our newly commissioned food truck. The paper, a Year Two Bachelor of Culinary Arts, Culinary Systems Design course, has twenty-two enrolled learners. Twelve of the learners are grouped and facilitated through the delivery of a Friday Market Day providing bread selections, both sweet and savoury pies and tarts, Danishes, croissants and lunch-time snacks. The other seven would have been grouped to the food truck and delivered a lunch menu based on the contemporary street food context while drawing from the outcomes of HCD methods and processes. As it has turned out nine of the cohort were given permission to continue development into the Culinary Systems Design paper on products they designed from their previous paper, (Product Design) effectively halving the group split between market and food truck. This would have left a split of five and five for each delivery, not enough to do justice to either. So, the decision was made to focus on the market delivery for the remaining 10 learners which offers more scope in its delivery based on equipment, kitchen preparation area, storage and person power.

I must admit to being a little despondent when learning about this decision, having in place timetable splits, menus, ordering and lesson plans accommodating the food truck delivery. I reacted, rather than reflected to this change, by this I mean I had the immediate thought that my prepared work was for naught and I would need to shoehorn or back fill new work into my research. On reflection, when given myself time to really consider how HCD would fit with both market and product design deliverables, I had a ‘eureka’ moment and realised the HCD approach I was considering for the food truck would fit just as simply over a market, a stall in the centre of town, a pop-up or into a learner’s new innovation or system improvement. The food truck is built, compliant and timetabled in curricula now. It will be, and already is a fantastic learning tool for our school, teachers and learners.



Figure 8. Otago Polytechnic Food Truck. 2018

This awareness leads me into my next section where adopting and implementing Human-centred Design to any of my learner's contexts holds the key to new and innovative ways to facilitate learning.

3.1 PRAGMATIC HUMAN-CENTRED DESIGN, A PERSONAL VALUE SET

The Collins Dictionary defines Pragmatism as 'a means to think of or deal with problems in a practical way, rather than by using theory or abstract principles' (Collins, 2018).

First introduced in the United States in the late 1800's, two of the classical exponents of pragmatism were Charles Sanders Peirce (1839–1914) and William James (1842–1910) with John Dewey (1859–1952) being heralded as one of the foremost philosophers and pragmatists of his time. Pragmatism waned during the early and mid 1900's but made a comeback in the 1970's with the rise of Humanism – a belief in the worth and dignity of all people, and Idealism – the belief in the importance of ideas and thoughts. From the 1970's these concepts aligned with the more modern philosophers thinking as they were increasingly willing to use the work of the classical pragmatists. Considered ahead of his time, John Dewey believed the educational curriculum should encompass the interests of the students.

He associated education with an applied philosophy; rather than teaching topics in isolation he supported learners to grasp the whole of the knowledge, much as we teach within the Bachelor of Culinary Arts environment.

Dewey encouraged students to gain knowledge through experience then to think and reflect critically on these experiences. He illustrated where mathematics could be learned by cooking, travelling or making. History could be learned by experiencing field trips or exhibitions. Reading could be learned through independently selecting the research that pertained to the interest or topic.

Pragmatists consider that reality constantly changes and that we learn best through applying our experiences to problems as they arise. Pragmatist theory also discusses truths. Where Charles Peirce's account of truth is presented as a means to understand a concept that was important for the method of science or reality, Williams James used his version to defend the pluralist view, "the view that in liberal democracies power is (or should be) dispersed among a variety of economic and ideological groups and is not (or should not be) held by a single elite or group of elites". That there can be different kinds of truths, he also stated, "The greatest enemy of any one of our truths may be the rest of our truths" (Liesangthem, 2008). Pragmatism offers up a simple means of thinking, and pondering about the things that matter to the individual. It tells us to refrain from abstraction, consider previous experiences, and allow for mistakes or uncertainty. Pragmatism can be seen as a way of approaching life, the pragmatist suggests. 'Rather than trying to achieve truths or certainty, try to come up with something that works and makes sense of your experiences.' Looking inwardly at my own pragmatic philosophy I find it near impossible to separate my work, personal, life beliefs and values, which reflects the way I view and act in the world.

Pragmatism underscores these principles where I focus on a way of thinking that advocates the practical, accessible, and sensible. The pragmatist ethos fits with my belief that practical experience guides future learning and when coupled with contemporary educational methods such as human-centred design can yield unforeseen and unique outcomes.

This leads on to the next section where I discuss using human-centred design in the culinary context.

4 ORGANISATIONAL CONTEXT – CULINARY ARTS AT OTAGO POLYTECHNIC

The Food Design Institute at Otago Polytechnic provides a Bachelor of Culinary Arts degree program offering a holistic culinary education platform that has at its core, design thinking. This unique and creative program exposes the learner to a multi-faceted view of culinary learning. Both the traditional and contemporary contexts are explored while offering time and space for independent exploration and discovery. This environment also offers teachers the opportunity to operate as co-learner and facilitator rather than a Master instructing apprentices.

Within my personal practice there is anxiety between the delivery of conventional training methods and the autonomy that the design based practice allows. How much of the craft skill and traditional vernacular should a graduate take away with them? Do we have a responsibility to our culinary community to insure its continuance? Conversely, do todays learners respond, or need, lists of mother sauce derivatives, obscure meat cuts or defunct suet-based pastry recipes and preparations as some kind of validation into the culinary community? Krippendorff (2004) discusses how when designing any process, system or activity we must identify what the meaning of the process, system or activity would offer the user. Krippendorff's view on design thinking contends that behaviour and understanding go hand in glove. He states "humans do not respond to the physical qualities of things but to what they mean to them" (Krippendorff, 2004, p. 45).

Involvement in the Bachelor of Culinary Arts program gives me the opportunity to consider a shift in my teaching practice from not only demonstrating a culinary process, service or product (the physical quality) to consider how the learner also believes the end user of a process, service or product understands or interacts with their proposed outcome. Human-centred Design helps to consider this pathway. Bowden and Marton write, "the process of learning is not about the accumulation of material but about the process of changing conceptions" (Bowden, 1998, p. 253).

Considering the Otago Polytechnic organisational context leads me to contemplate in the next section, an alternative culinary pedagogy; one which could explain and give resolutions to conflicts between the conventional and the holistic educational methodologies.

5 AN ALTERNATE PEDAGOGY – DESIGN AS A PEDAGOGY AND PRACTICE

When we consider education within the culinary arts we are compelled to look at the latest practices and innovations influencing our culinary landscape. Umbrella statements or definitions of contemporary practice include:

- Fusion – the marrying of foods from different cultures
- Pasture to plate – the following of a product through every stage of its production and use
- Molecular Gastronomy – which introduces both natural and chemical substances and interactions into the field and investigates the physical changes of ingredients through cooking.

Looking at the true starting point of all this innovation is the realisation of the chefs own talents in culinary alchemy, business, design and human resourcing. The reality is, all this invention and entrepreneurship stems from its creators extending their creative impetus into what can be defined as higher thinking in concept, design and execution. It is recognition in academia the world over of creative design using food as a medium, which has led to Culinary Arts awarding and rewarding its practitioners with the appropriate level of qualification by way of Bachelor, and Master's Academic Degrees.

I want to challenge my current teaching and learning practice from the traditional master/apprentice model which is the norm within culinary education worldwide, to one which has at its core a pragmatic approach to Human-centred Design, discovering a more contemporary and 'in tune' approach to culinary arts education and its delivery. Throughout my teaching career I have applied a behaviourist model of education through the master/apprentice methodology. I have observed how this behaviourist method may limit a student's learning by only having available to them the skills or knowledge the instructor has or wishes to release. In challenging the traditional pedagogy, I have implemented a pragmatic human-centred design approach within a new and innovative culinary learning environment, a food market. The human-centred design methodology focuses on an empathetic view of the end user and allows the learner to gain culinary skill and knowledge through a more creative and iterative process. Following this process has started to transform my practice through designing learning experiences from more than my own historical context, allowing for original, innovative and unique solutions to problems in culinary delivery systems and processes.

Jonathan Deutsch at Drexel University discusses his alternative model to culinary education that teaches methodological understanding over recipe and culinary replication.

"What tastes good and what is desirable should be in the repertoire, with a clear acknowledgment that a culinary student of today is much more likely to find themselves rolling sushi for a cocktail party than preparing a tableside sole bonne femme" (Deutsch, 2011). He also states that at the core of such pedagogy is desire: professional, gastronomic, and intensely personal where he looks to train young cooks to say not only, "Oui, chef!" but "Why, chef?"

Joseph M. Calahan, a director at the Xerox Corporation discusses what he thinks arts education adds to a new entrant's skill set and is quoted as saying: "Arts education aids students in skills needed in the workplace: flexibility, the ability to solve problems and communicate, the ability to learn new skills, to be creative and innovative, and to strive for excellence." (Calahan, 2013). Hegarty discusses critically reflection on the lived experience as essential for culinary excellence and lifelong learning. He proposes that to lift culinary arts beyond being a craft, educators and students need to become reflective practitioners by studying their situations with a view to improving the quality actions within them. Hegarty believes that fundamental to this pedagogical transformation is that the 'traditional mindset within the culinary schools' will need to change. To effect these changes, he proposes that culinary educators need to apply self-analysis tools to question their own practices within their context (Hegarty, 2011).

When considering an alternate culinary pedagogy, it is my opinion there also needs to be a solid methodology behind its research and delivery. In the next section I consider a layered autoethnographic approach to be appropriate, using self-reflection to explore personal experiences within the culinary culture.

6 PROJECT METHODOLOGY

Autoethnography is a form of qualitative research in which a researcher uses self-reflection to explore their personal experience within cultures to analyse their involvement within wider meanings and understandings (Ellis, 2004).

Within my Master of Professional Practice (MPP) project I have adopted autoethnography as my research methodology. Like other education researchers in the field (Starr, 2010), my MPP project is an examination of myself within the processes and interactions of the project while considering the transformational changes within my teaching and learning practice. Autoethnography as a research methodology may take several forms including the art based evocative position (Bochner & Ellis, 2016) through to the realist and the analytical (Anderson, 2006). Within these positions there are many subfields which exist including the co-constructed and layered account approach. Bochner and Ellis (2016) state “how much emphasis is placed on the study of others, the researcher's interaction with others, traditional analysis, the project context, as well as consideration of the power relationships within a group” will help to determine which autoethnographic method is ultimately selected by the researcher to be implemented.

The underlying reason for using autoethnography within this project is to examine and at the same time challenge my current professional practice. As a classically trained chef who operated within strict hierarchical kitchens, my teaching practice is heavily steeped in a very traditional master-apprentice pedagogy. With my MPP project incorporating information from many positions, I have chosen to adopt a layered autoethnographic account as my research method. Layered autoethnography often focuses on the author's experiences alongside data, abstract analysis and relevant literature (Ronai, 1995). This form of autoethnography emphasises the procedural nature of research (Figure 9). Layered accounts illustrate how data collection and qualitative analysis can be simultaneously considered within the autoethnographic method and context, while framing existing research as a source of questions and comparisons (Bochner & Ellis, 2016).



Figure 9. Research. (Vinall-Cox, 2013).

Gurvitch, Carson and Beale contend that autoethnographies typically “tend to communicate personal experiences and dialogues regarding oneself or one’s interaction with others” (2008, p. 246). It is these personal interactions between the end users, learners and facilitators that allowed an autoethnographic methodology to use self-exploration and self-analysis within human-centred design to facilitate new learning. One of the main tenets of human-centred design considers an empathetic view of the end user of any product or service. Due to the student-centric nature of my project the implementation of autoethnography as a reflective research methodology seemed appropriate.

Within my MPP project I have used a pragmatic, sensible and realistic approach to facilitate the learning of systems and processes within the culinary arts while keeping ‘human-centred design’ at the centre of the activity for the end user, student, educator or client. By using a layered autoethnographic methodology I was able to collate, contrast and compare multiple forms of data throughout the project, through the use of self-reflection as well as digital, written and conversational sources. This enabled me to share my findings with all involved, iterate where necessary and ultimately test student products, services or systems within the real-world context of a ‘food market’ or individual product outlets for retail sale.

The observation and implementation of the project was split into two stages within semester one of 2018. Initial research and observations took place within a cohort of Year Three Bachelor of Culinary Arts students undertaking an Applied Culinary Professional Practice paper that has

similar culinary activities as the Year Two Culinary Arts project (Culinary Systems Design) which this project focuses on.

As such, this was not formal research but general observation as to how students were responding to new pedagogic practices within my teaching. The writing and sharing of the work is delivered in the second semester of 2018.

6.1 STAGE 1

The first stage was to reflect on prior observations around traditional systems and processes that allowed the food market to function appropriately. In the first instance this learning had been informed by the informal conversations that had already taken place within the Food Design Institute to determine the needs and wants (scope) for a wide variety of culinary end users. These reflections include culinary systems and process outcomes, pop-up events, market days, fundraisers, social enterprise as well as curriculum embedded workshops. All these events afford opportunities to consider learner participation, teacher facilitation and audience empathy while contemplating a future human-centred design approach via an autoethnographic methodology. Through critical reflection, this stage gave a baseline for system and service design while allowing me to consider my role and practice within my teaching. As such, they provided me with a richness of experience for me to explore my own new learnings within these new pedagogic practices. In turn, these observations which were outside of the scope of my formalised research have now became an opportunity for me to adopt autoethnography to analyse my own actions with these new pedagogic cultures.

6.2 STAGE 2

The next stage focused on a specific cohort of student learners, Year Two Bachelor of Culinary Arts students. They were to take a human-centred design approach to determine both product and process requirements for their group or individual projects. This approach is a gestalt shift from the behaviourist practices of traditional culinary education that has been criticized for its lack of student agency (Deutsch, 2011), to one which embraces a cognitive and constructivist

approach where the learner uses critical thought to construct their own learnings and meanings from an experience.

This revolved initially around the sharing of student tacit knowledge and past culinary experiences, what they knew about a given context and, how they might extend their research through putting themselves at the centre of a design problem.

This transition in research practice allows learners to form an empathetic view of their customers and design products addressing their personal preferences. By the learner putting themselves in the shoes of the client or end user distinguishes and defines the end users' needs through the use of group conversation and written reflection.

This underscores the use of a layered autoethnographic research methodology and considers, learning through self-exploration of experience, data collection, abstract analysis, conceptual, cultural and emotional dynamics within the working group. In Section 10 I discuss how Human-centred Design is implemented into my teaching.

7 HOW I ADOPTED AND IMPLEMENTED HUMAN-CENTRED DESIGN WITHIN CULINARY ARTS EDUCATION

7.1 UTILISATION OF OUR STAKEHOLDERS' CONTEXT

I see human-centred design as a pragmatic, (sensible, realistic and practical) approach to facilitate the learning of systems and processes. The HCD methodology puts the end user, student or client at the centre of the activity.

The model below depicts the design thinking process and offers a learner a roadmap that can be overlaid into any stakeholder's context to facilitate new innovation, practice and learning.

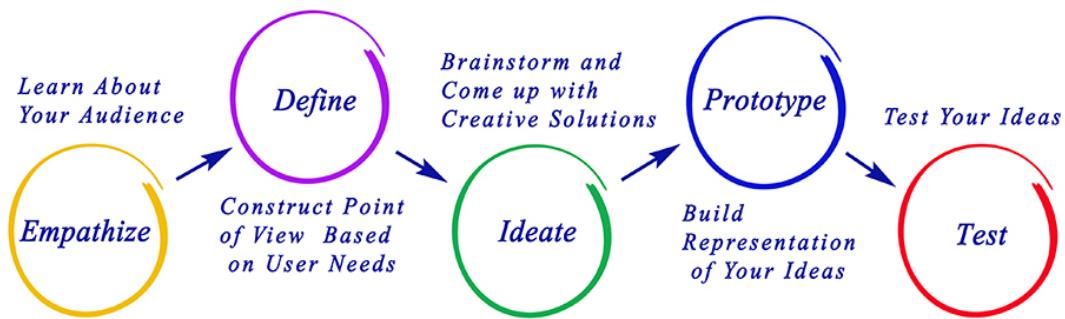


Figure 10. - Design Thinking Process. (Daron, 2014).

Implementing a human-centred design approach in culinary learning and teaching requires letting go of some habitual process and perceived truths that the traditional master-apprentice learning environment bases itself on.

The thing I have found most refreshing in implementing a HCD platform for learning is our learners have little or no preconceived archetype of a model or process of how an outcome 'should be' developed. This allows for any and all ideas to be considered and not restricted by traditional theory and practice. My own observation, and indeed practice, sees most lecturing staff or facilitators in culinary learning have a biased or even rigid view on how or what a final dish or culinary experience outcome should taste, look and feel like.

I often use a 'wedding party' analogy when explaining or comparing the HCD methodology to the traditional approach in culinary design. When a wedding breakfast enters the planning stage it is common for the Chef to meet with the party to discuss options and requirements.

Within the traditional hotel or event setting, they may also meet with the Food and Beverage Manager or Assistant. The traditional approach sees a wedding party offered multiple options from a range of offerings which are cleverly crafted to overlap and be utilised within several outlet menus in a catering establishment. This may mean a selection of petit gateaux would be available in both the wedding selection as well as a dessert option for the à la carte restaurant, the crusted lamb rack offered to both wedding and fine dining outlets or the soup du jour offered within Room Service, Buffet and Wedding menu options. This is to the advantage of the catering establishment as it often takes the same amount of time to make 50 of a particular item as it does for 10, the product therefore can cost less to make due to wage costs and bulk or seasonal product range. Wastage is cut down by utilising the same mise en place with one bulk cook verses many smaller amounts being prepared that create their own waste, trim or shrinkage on cooking.

This traditional approach often sees the Chef or Food and Beverage Manager steer the guest into choosing these overlapping menu offerings through conversation or even price incentives, therefore succeeding in duplicating the required mise en place for each kitchen station cutting back on time, range and costs. This traditional approach is firmly rooted in financial compliance usually handed down from the yearly forecasted budget. The catering industry operates on such minuscule margins that any wastage, overspend on staffing or careless use of time and product can easily tip the monthly profit and loss sheet into the red. This way of operating is often reinforced or encouraged by owners or hospitality management through monetary incentives to Chefs and Chef Managers. Key performance indicators are often written into Executive Chefs' contracts and directly linked to wage and food cost outcomes. If the wage and or food costs budgets are met for the month the Chef receives a cumulative bonus, usually paid out at the end of the year. These bonuses may be considered as part of the overall running cost of an efficient kitchen operation. I myself received upwards of a \$5,000 bonus as part of my salary package at one large operation. These efficiencies and incentives can have an effect on the more creative and empathetic aspects of cookery in hospitality where, if you know offering a guest one option over another will have a direct effect on the end of month bottom line but will offer the guest more satisfaction through choice or final price, the dilemma becomes one of ethics and consideration for all parties. Balance is required to ensure your obligations to your employer and to your guests are fully and honestly met; without either of them there would be no business at all.

Taking a human-centred design approach to a wedding party's inquiry sees us start not with a limited 'culinary table of contents' but a desire to empathise with their needs and desires and to

“start to solve problems from their perspectives” (IDEO, 2015, p. 22). This doesn’t mean we do not consider the financial and time constraints our everyday culinary world puts on us. Alongside these perceived constraints we can choose to place ourselves in the shoes of the people we are designing for, placing them, not imposed obstacles squarely at the centre of our work. Having our clients, learners or other facilitators at the centre of our design helps us look at possible solutions to problems through more than one lens. Starting with our human element we can uncover what is most desirable to the people we serve. Consider a range of options that could appeal we then contemplate what could or would be feasible based on factors such as staffing and capability or practicality of delivery. Then we consider the overall financial viability and sustainability of the offering.

This balance needs close consideration for the solution to be successful.

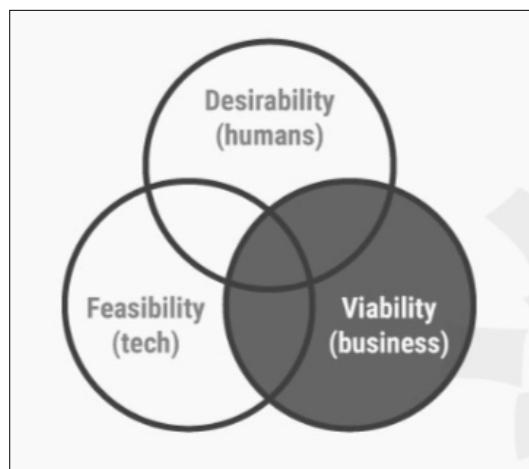


Figure 11. Prototype to Product (Dam & Siang, 2017).

The human-centred design engagement within culinary education fits like a jigsaw with a learner’s total lack of preconceived restrictions that more experienced or indoctrinated culinary professionals impose on themselves and their learners. The human-centred design approach to learning and teaching frees our minds to explore solutions to problems or issues that more traditional thinking in culinary education may restrict.

The next section discusses the models, digital platform and the theory implemented within the delivery of a Pragmatic Human-centred Design approach to this paper. It starts with highlighting the structure for formative assessment and feedback while showing how user feedback iterates outcomes.

8 INTEGRATION OF HUMAN-CENTRED DESIGN INTO FORMATIVE ASSESSMENTS WITH END USER FEEDBACK MODELS

Generally speaking the purpose of an assessment is to collect information that can be used to improve the instruction or teaching of students. This data can be gathered in-process rather than summarily at the conclusion of a course or paper (Great Schools Partnership, 2013).

Students of the paper ‘Culinary Systems Design’ as part of the Bachelor of Culinary Arts degree were asked by their facilitators, Steve Ellwood and Tim Lynch, whether they had ever attended a farmer’s market (a food market being an out-put of the paper they were doing). They were then quizzed on the scope of the markets they had attended (local, national, international). The students were then tasked with writing down the top three attributes that they as customers felt made shopping at a farmer’s market enjoyable (Figure 12). These attributes were then written down on Post-It notes and placed on a whiteboard in the classroom. The commonalities between the different attributes were then assessed and the notes clustered together according to the common attributes. These clusters were then used to inform questions that aligned with the attributes the students had written, and worded in such a way as to be posed as questions which could be given to customers to assess the performance or otherwise of the market.



Figure 12. Farmer’s market student exercise. 2018.

These questions were then loaded onto a software program called Tastelt™ (Figures 13, 14, 15) which was developed by myself through ‘WorkSpace’, a then design department within Otago Polytechnic. This feedback platform was originally designed as a sensory analysis tool to evaluate flavour profiles in food but has become more useful as a data and feedback gathering mechanism on performance and experience. Tastelt can be remotely accessed by the users or customers to give anonymous feedback for the students.

In this way, the students created their own baseline in which they evaluated the user experience of the farmer's market, and within that their own learning. They are then tasked with using both the quantitative and qualitative results and feedback to improve the operational and experiential components of the market in an iterative and reflective manner: mapping the changes to the user experience while using a human-centred design approach.

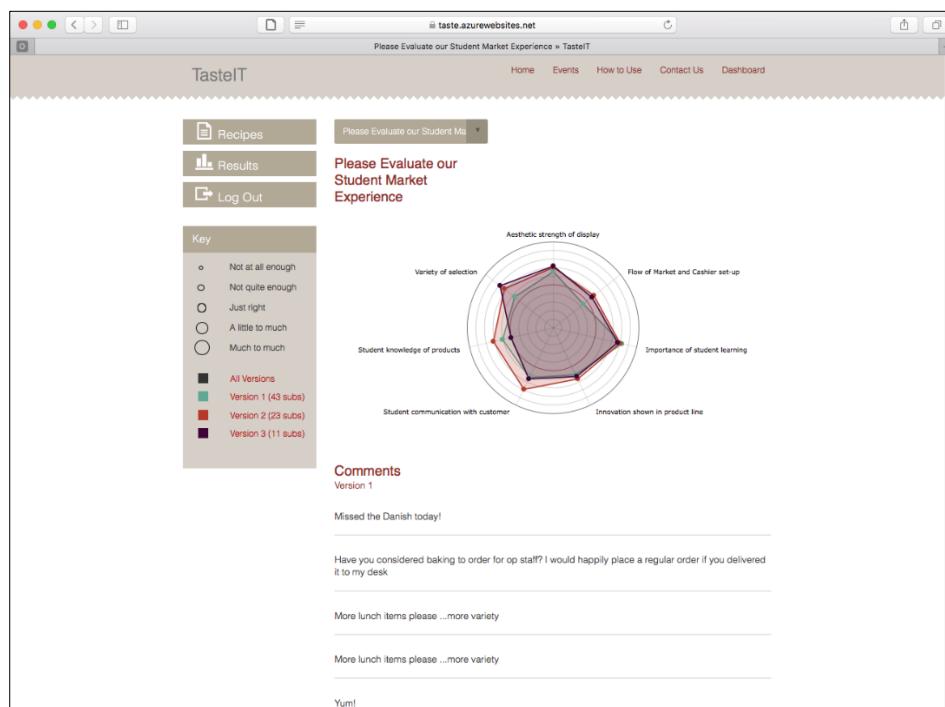


Figure 13. TastelIT™. (Food Design Institute, 2018).

This formative assessment process was evaluated against the template outlined by the New York Department for Public Instruction in their paper 'Attributes of Effective Assessment', and has influenced the Culinary Systems Design paper as outlined below (MacManus, 2008).

8.1 ASSESSMENT USING HUMAN-CENTRED DESIGN

8.1.1 LEARNING GOALS AND CRITERIA FOR SUCCESS:

Learning goals and criteria for success should be clearly identified and communicated to students.

In this case the students provided a baseline of knowledge that could be built on and evaluated from. This provided a template the students could measure from. In this way, they were able to create their own learning goals.

8.1.2 DESCRIPTIVE FEEDBACK:

Students should be provided with evidence-based feedback that is linked to the intended instructional outcomes and criteria for success.

Within this model the human-centred design approach requires that feedback be taken from the end user. Their feedback is entered into the Tastelt™ software system to be given to the student. This allows the lecturer to disseminate the information alongside the student, and for the student to make amendments to their practice based on this.

8.1.3 SELF- AND PEER-ASSESSMENT:

Both self- and peer-assessment are important for providing students an opportunity to think meta-cognitively about their learning.

Open-ended conversations surrounding the dissemination of the feedback are held with the whole class to encourage reflection on action both informally with their peers and formally at a later stage, which serves as meta-cognition.

8.1.4 COLLABORATION:

A classroom culture in which teachers and students are partners in learning should be established.

Due to the human-centred approach imbedded within this model of assessment, the entire process of delivering the experience (farmer's market) and evaluating the user experience is collaborative. This is reinforced in the classroom with the communal evaluation and reflection on the feedback followed by implementing of changes based on end user experiences (Lynch & Ellwood, 2018).

In my opinion individually considering students' learning goals, considering general feedback, self and peer assessment and student/facilitator collaboration, gives credence to the layered autoethnographic methodology used within this project as each has at its core individual reflection on the interaction with others.

The use of digital technologies helps to highlight areas for improvement or innovation. The Food Design Institute's Tastelt™ platform is discussed further in the following section, offering a pathway into reflection and iteration.

9 THE USE OF DIGITAL TECHNOLOGY AS A REFLECTIVE TOOL

I support the idea of shared and free access to digital technology platforms; platforms that aid in the reflective processes while exploring the human sensory, experiential and subjective evaluation within the culinary context.

When reflecting on non-sensory aspects in food choices, contextual influences such as cost, service interaction, product selection, the time of day, the physical surroundings and one's own bias towards issues such as sustainability have a direct bearing on a person's reaction towards any food offering. Connors et al. state consumers use a personal food system that draws influence from, among others, ethics, safety, waste and quality as choice factors in food (Connors, Bisogni, Sobal, & Devine, 2001, p. 189). To assert the notion of context in food, social interaction can be explored. Culture underpins food choices and is the baseline for the development of individual preferences. When dining in so-called "starred" restaurants, the expectation then reflection on every aspect of the food experience is perceived to be at a higher or more formal level as opposed to ordering a meal from a food truck where a more casual approach to food and delivery is expected. The offerings from either are just as valid in their own social context.

To enable the creator of a food product or any human interactional experience to reflect, iterate and test their offering, or to help them narrow down a perceived sensory or experiential issue, both qualitative and quantitative responses to the analysis are helpful. Bernardo-Gil states "at the heart of sensory analysis lies the complex field of language or descriptive analysis" (Technical University of Lisbon, 1997). Sharing the multisensory physical experience in food between its creator and its end user relies on the consumer being able to reflect on, then communicate their perception of the food experience in a descriptive manner. To this end the Food Design Institute has designed, written and commissioned the web based, multi-platform stage, Tastelt™.

This digital platform can be accessed from a computer, tablet or mobile phone and is used to evaluate and collate participant's perceptions and feedback in response to any given criteria. Within the Tastelt™ model, quantifiable results are blended with personal qualitative feedback to give both the designer of the food and the consumer of the product useful information, enabling positive results from further reflection and the human-centred design iterative processes.

The screenshot shows the TastelT website. At the top, there is a navigation bar with links for Home, Events, How to Use, Contact Us, and Login. The main content area features a dark red header with the text "TastelT" in white. Below this, there is a section with text and an image. The text reads: "TastelT enables students to receive, in real time, vital feedback from guests by rating their culinary output through digital media. The users response is collected at the point of tasting, analyzing the balance of flavors and overall experience. This data is then digested by the student, allowing them to refine their work based on this sound user testing." A red button labeled "Get Started Now" is visible. To the right is a photograph of people in a kitchen or food preparation area. Below the photo, the date "31 December 2018" and the text "Culinary Systems Design" are displayed.

Figure 14. TastelT™. (Authors own, Food Design Institute, 2018).

9.1 COMMUNICATING EXPERIENTIAL SENSORY EVALUATION

TastelT™ communicates submitted data back to its event creator² by displaying an average or sum of set criteria in both mathematical and graphic formats. TastelT™ presents this data in order to quantify feedback from set critical control points, or questions its creator wants answers to. This allows the TastelT™ model to acquire broad feedback from any population that is condensed, and easy for the creator to access and iterate from.

The model combines “Rating”, a form of affective testing where the participant uses a scale to rate a hedonic sensory or experience response. TastelT™ also uses a descriptive methodology, where qualitative responses are drawn from the tool’s submissions, and its creator uses the information to iterate further based on the population’s responses.

² Event creator; learner’s personal feedback platform.

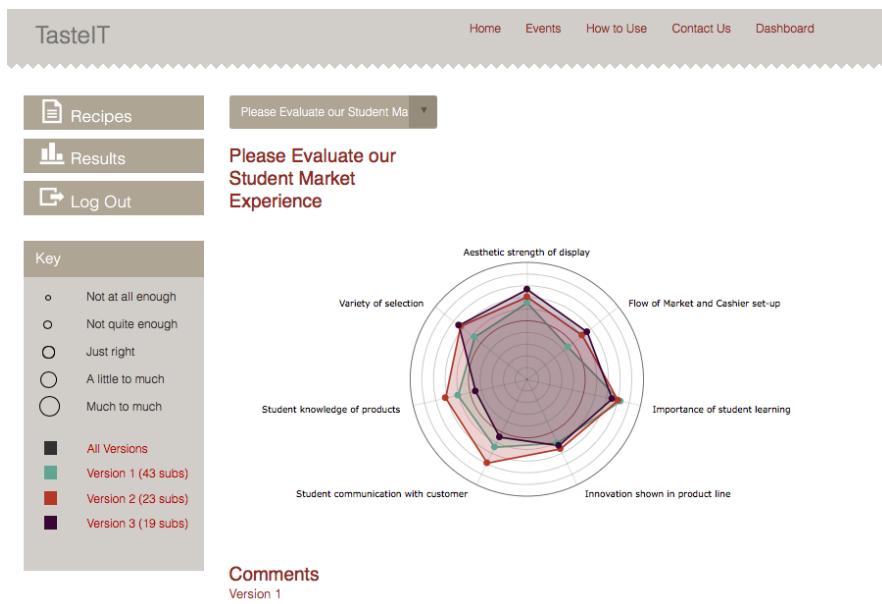


Figure 15. Tastelt™. (Authors own, Food Design Institute, 2018).

9.2 SENSORY TESTING OF FOOD DEFINING APPEARANCE, FLAVOUR AND TEXTURE

Within the Tastelt™ model, sensory evaluation theory and practice is established, prototyped, analysed then iterated based on the human-centred design model through the reflective process. And within the educational context, delivered before final product, or consumer food testing takes place.

Established theory defines two dominant categories used by the human senses to explain sensory profiles. Chemical, which uses taste and odor in order to define food profiles, and Physical, in which sight, sound and touch is used to sense attributes of food.

Character notes are defined as the sensory attributes of food to define its appearance, flavour, texture and aromas. Top notes are defined as the most immediate or definitive flavours, textures or aromas.

Flavour itself can be defined as an overall impression that is derived from chemical stimulus relating to the taste buds, odour receptors, organs of touch in the mouth, nose and throat including the trigeminal nerves within the oral cavity. These criteria are all considered within the Tastelt™ model.

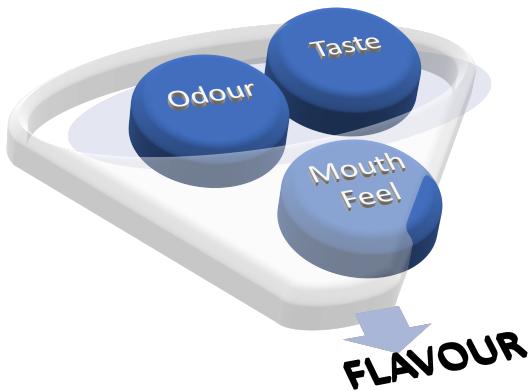


Figure 16. Flavour receptors. (Author, 2018).

Visual clues influence food perceptions before any of the other senses deliver their perception to the brain. Consumer studies conclude the top three criteria used to define food quality include freshness, appearance/colour and pleasant taste. Perceived flavour, texture and ripeness are all influenced by colour. Consider a banana's colour change through the ripening stages from unripe -green- to yellow- ripe through to brown which is over ripe (Figure 16). These visual clues give us firm perceptions through reflection in memory, of each stage and its corresponding flavour profile.

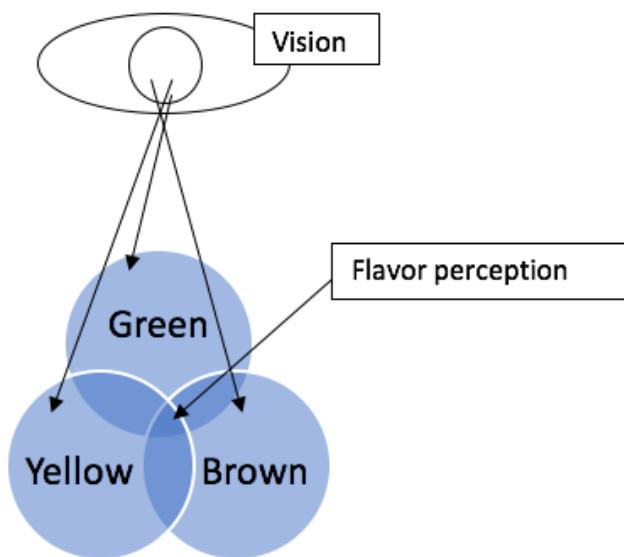


Figure 17. Flavour perception. (Author, 2018).

The Tastelt™ model does not go so far as to compare itself with the sensory testing methodologies of traditional food science but offers a snapshot, through reflection and design thinking, while using a small population with objective or quantifiable analysis combined with subjective or qualitative responses drawn from a population's experiential and sensory submissions. The model has proven itself to be useful within the culinary educational context.

This (in my opinion) can be viewed as true reflective practice through human-centred design as the formation of new ideas may come from iterative evaluation. Bowden and Marton write "the process of learning is not about the accumulation of material but about the process of changing conceptions" (Bowden & Marton, 1998). The Tastelt™ platform is implemented within curricula to gather reflective feedback and data on sensory, experiential, learner and peer contribution from Otago Polytechnic projects and papers. These include The Assessment of Prior Learning stream for the Bachelor of Culinary Arts, the taught Bachelor of Culinary Arts degree program and Hospitality Management deliveries at Otago Polytechnic.

The New Zealand Diploma in Hospitality Management was the first program in the Food Design Institute to use the app for peer evaluation. We already, as a group, used the app for the kitchen studios and prototyping sessions in semester two, but then decided after discussion with Capable New Zealand, to use it for an entirely different purpose. The students were used to the app from the kitchen studio sessions, so from this vantage point it was an easy step to make to give feedback about their peers' performance during the Management in Action course. The feedback was required for the student group pop-up projects in our Ako espresso cafe, part of the station rotation learning together with Technique Training Restaurant's International Dinners and Stores Management at Manaaki. The students were asked to give feedback in areas of attendance to group meetings, contribution and ideas to the group project, completion of assigned tasks and depth of work, overall contribution and problem solving among others. The feedback was scaled, out of 10, with 10 being the highest mark.

The uptake and the buy-in from the student group was excellent and feedback received was valuable for each of the students personally; they were then able to look for areas of improvement and use this in the critical reflection part of their assessment, therefore closing the loop. The feedback was constructive and the scores accurate of where I would see the student and their participation and contribution in the project. The technology appealed to the students and in my view, was more successful than the paper format used in the past, and also provided a way to keep the student feedback confidential.

This confidentiality could have contributed to the amount of feedback students gave whilst staying constructive and honest (personal communication, D. Pfyl, 2018).

Tastelt™ helped students understand the importance of knowing the basics of flavour for creating food outcomes over the last two years. While they learn a bit about balancing flavours for salads first, by the time other learning occurs introducing Tastelt™ reinforces that learning and gives them a real-world process to consider which makes them fully understand balance, encouraging them to find other solutions due the quality of feedback staring back to them (personal communication, D. Gillespie, 2018).

The model is also used outside of the Otago Polytechnic environment. Some of the businesses and institutions using the Tastelt™ platform include: Ara Institute of Canterbury, Paramedics Wellington, and The Crooked Spaghetti Company, who commented:

The first point I would make is how user friendly it is, this is especially important given the subjective nature of the data that I'm retrieving. The graph manages to easily convert some very complicated and ambiguous information into a form that I can understand quickly and gather raw meaning from. The user-friendly nature is also important for the users, as giving them a tool that is time consuming and difficult to use would hinder the ability to gather data. So how do I use it? I currently have multiple sample groups placed around New Zealand, which represent various demographics. When I am in the development stage of a product I send samples of it out to them to try. After trying they jump on the app to give their feedback, this is automatically compiled for me to look at. As they know that I am unable to tell who has left which comment it is always honest. This saves me the time and expense of arranging a sensory panel, and gives me information, which I can action on immediately. Ultimately the apps biggest asset is the speed in which I can gain feedback, this has allowed me in many cases to pivot my development strategy in response to this information and prevented wasted resources and time (Lynch, 2018).

9.3 IMPLEMENTING HUMAN-CENTRED DESIGN

9.3.1 WHY USE HUMAN-CENTRED DESIGN

The project started with highlighting pragmatic Human-centred Design as being the cornerstone of the Year Two, Bachelor of Culinary Arts, Culinary Systems Design paper, a 15 credit, four-week short course paper on designing systems for culinary experiences.



Figure 18. Market Day. 2018.

The original methodology for this paper focused on the learners within the designated groups using their collective ‘hard skills’ from within their culinary toolboxes to deliver a food based event to an outside client’s brief.

In the past, the brief used the client’s location as a starting point to uncover both demographical and sociographical information on the client’s business, and develop a profile of the ‘typical’ customer (persona) who would use the business. Open source websites like ‘Helix Personas by Roy Morgan’ or ‘Statistics New Zealand’ offer such information.

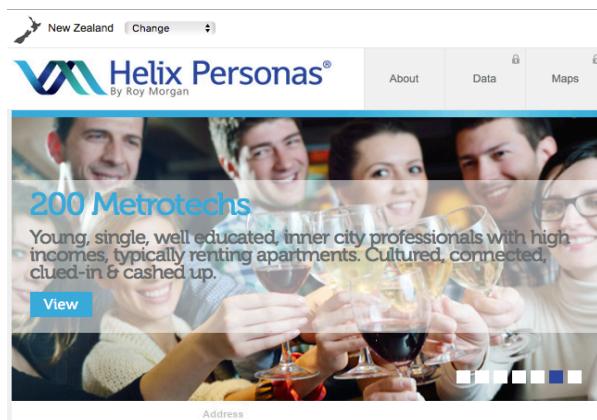


Figure 19. Persona. (Roy Morgan Research, 2018). Retrieved from
<http://www.helixpersonas.com.au/>

A screenshot of the Stats NZ website. The header includes the 'Stats NZ' logo and 'Te Mana Rauhī Aotearoa' tagline, along with navigation links for 'STATISTICS', 'TOOLS', 'SERVICES AND SUPPORT', 'INTEGRATED DATA', 'CENSUS', and 'ABOUT US'. A search bar is also present. The main content area is divided into two sections: 'Statistics' on the left and 'Data tools' on the right. Under 'Statistics', there are four cards: '4,871,300 Population of NZ AT 31 MAR 2018', '4.4% Unemployment rate MAR 2018 QTR', 'Consumers price index ANNUAL, MAR 2018 QTR', and 'Gross domestic product MAR 2018 QTR'. Under 'Data tools', there are three cards: 'NZ.Stat' (View datasets in tables, customise variables and layout, and download Excel or CSV files), 'InfoShare' (Build tables from our biggest range of datasets, including long-term time series. View on screen or download Excel or CSV files), and 'Statistics by place' (Stats about the population by region, city or district, Auckland local board area, and area unit). At the bottom of each section are orange 'MORE TOOLS' buttons.

Figure 20. Data tools. (Statistics New Zealand, 2018). Retrieved from <https://www.stats.govt.nz/>

These sites are useful to initiate classroom discussion and gather quantitative data, but they can also be a very blunt tool when trying to discover what the client's consumer base wants and needs from the business. Lisa Ross writes in her Blog for Invespcro.com that "personas were initially created to help designers understand and think specifically for a small subset of users" specifically for 'User Experience design' in information technology. She also states "it is important to keep in mind that personas by their very nature have limitations, no matter how well-researched they are. Any persona is developed from a limited number of individuals, which makes it hard to determine if it represents the target customers and their needs accurately" (Ross, 2018). This led me to consider alternate ways of finding the best approach to determine who the client's customers really are, what they want and why they would choose the client's offering over a competitor's, their value proposition. Further observational research into finding out whether the client's restaurant, café or eatery could be classified as a destination

establishment or more reliant on passing trade can also be considered. This can give a starting point to consider a possible financial forecast by determining projected covers or ‘bums on seats’.

9.4 PROCESS

9.4.1 EMPATHY

Leaders in the field of human-centred design, IDEO suggest that all problems are solvable and believe that the people who face the problems are the very people who hold the key to their answers. This approach sees the Human-centred designer given a chance to design within communities of practice, to understand the people they are going to serve and create innovative solutions stemming from people’s actual needs (IDEO, 2015).

To this end I started the introduction to human-centred design within a culinary context by asking our group to literally put themselves in the shoes of a consumer. By splitting the cohort into groups of four, issuing each group with thirty dollars cash and directing them to five different food outlets, (Fluid Cafe, University Plaza, a nearby sandwich shop, University Commerce Café and a food truck) within the polytechnic area, asking them to take notes on their experience from their visit. On their return and after some discussion on how they perceived their café experience, an ‘Empathy Mapping’ exercise was introduced.

“An empathy map is a collaborative visualisation used to articulate what we know about a particular type of user. It externalises knowledge about users in order to 1) create a shared understanding of user needs, and 2) aid in decision making” (Carreteiro, 2014).

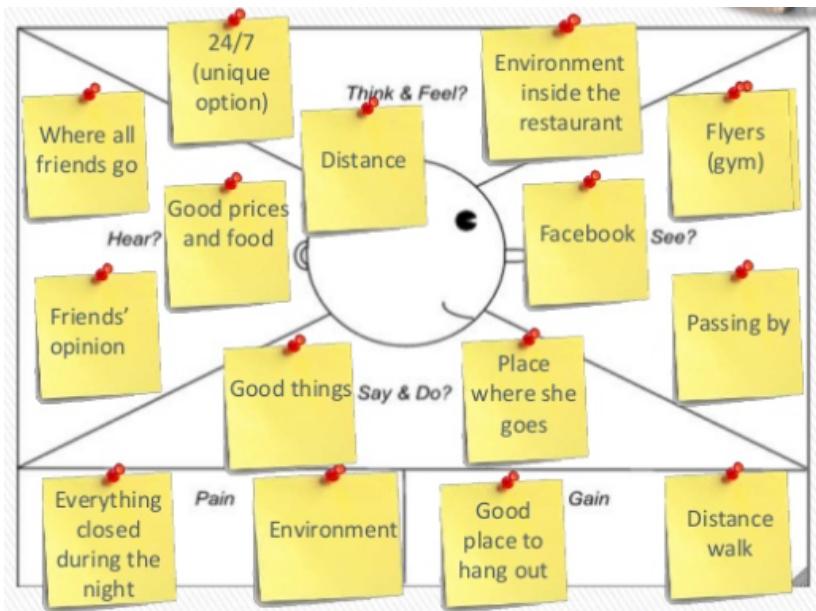


Figure 21. Empathy map. (Carreteiro, 2014). Retrieved from
<https://www.slideshare.net/goncalocarreteiro7/personas-and-empathy-map>

The empathy map begins our journey through the Human-centred Design process and firmly sets a platform to highlight how a consumer perceives the experience in the culinary context. By using our student groups as individual samples then collating their thoughts, we find similarities in the experience perception over all the groups.

We also introduce a ‘Customer Journey Canvas’ which allows us to again find parallel problems over the groups, highlighting issues or difficulties within the mechanics of the experience delivery. A ‘customer journey map’ can be seen as a timeline. One that highlights ‘touchpoints’ where your users or customers engage with your company. It could be a product, an online experience, a retail experience, a service, or any combination. By highlighting bottlenecks, staffing issues, consumable problems or user experience expectations we can work on solutions that benefit all stakeholders.

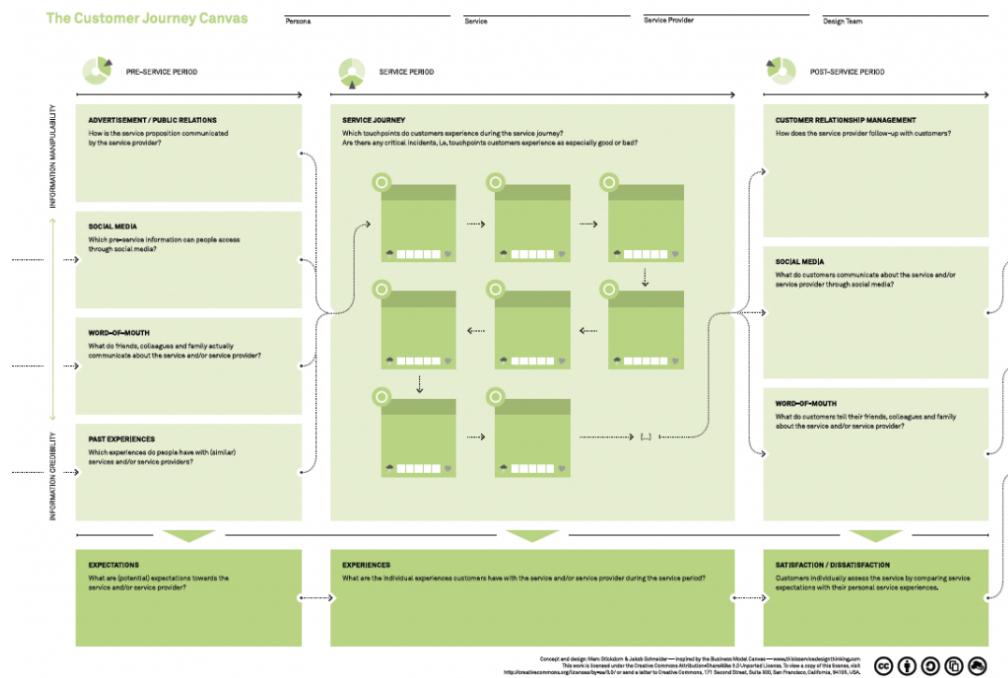


Figure 22. The Customer Journey Canvas. (Aalto University, 2017). Retrieved from <https://mycourses.aalto.fi/mod/resource/view.php?id=195240>

These two tools combined with placing the learner at the centre of the problem that we have to find a solution to, gives us an empathetic view of our audience. Implementing this structure shows a pedagogical change in practice where the first inclination of a culinary practitioner is to draw on their own past experience (Chef knows best) and simply write a menu or set an experience based solely on previous experience. This traditional approach usually takes little consideration for the real needs of the guests or indeed the learners in my context.

Following the human-centred design approach lays an empathetic foundation for our users' needs and allows us to move through to next stage in our process, defining a problem we would like to solve. The use of both individual and group, 'observation and reflection' sheets are implemented at the conclusion of each section. This helped to keep their focus on implementing the human-centred design aspect of their project.

9.4.2 DEFINING

From here we move along our human-centred design pathway to the defining stage. We create a shared 'point of view' that is based on the needs and insights of our customers. What do we

think our users need and want? How do we know? Can we form a consensus as to what the problem(s) may be, so the group as a whole is singing off the same sheet. At this stage, we are finding the problem and building an overarching problem statement (Figure 23). Some of the ideas from the empathy and journey maps springboard conversation around problem definition.



Figure 23. Students working on empathy maps and planning. 2018.

The use of both individual and group, ‘observation and reflection’ sheets are implemented at the conclusion of each section. By reflecting on the problem statement the learners maintained their focus on creating a definition of the problem they wished to resolve.

9.4.3 IDEATION

The ideation stage of human-centred design sees a shift in practice where the traditional approach to creating solutions to problems within the culinary context draws from past experience and ‘inside of the box’ thinking. Having very little restrictions on their thinking, student idea generation seemed most impressive to a more seasoned culinary professional (myself) who may have a narrowed or blinkered view through what is often a limited choice based on the traditional repertoire.

To bolster human-centred design, an exercise from Stanford University in design thinking was introduced at this stage. This exercise built on the HCD approach to problem solving and

introduced another voice into the students' learning. As often is the case, learners respond well to a balanced variety of information delivered through different facilitators. The Stanford 'D-School' exercise follows the human-centred design approach of empathy, define, ideate, prototype and test for a re-designing of the gift giving experience. The D-School exercise is an open source digital YouTube resource that serves as an exemplar of the human-centred design method delivered in a timed three-hour event. Following an introduction, the exercise starts with learners working in pairs and interviewing while recording each other on how they felt about the last gift giving experience they were involved with (empathising). The learners are then asked to focus on a point of interest or recurring theme from their partner's recollection of their last gift giving experience.

Extrapolating and recording this issue while dividing the problem between needs and insights, the learners are then asked to write a 'point of view' or problem statement (defining the problem). The next stage sees the learner asked to draw, without using alpha numerics, possible solutions to their problem, then give and receive critique and feedback on their possible solutions. After the feedback, they are asked to condense their drawings down to one possible non-alpha numeric solution (ideation). A table of craft supplies is uncovered next, and the learners are asked to build a prototype that represents a possible solution to their problem, from a randomly selected store of supplies that included foil, paper, ice cream sticks, Blue-tac, paper clips and tape (prototyping). By placing the finished prototype in their partner's hands the testing phase begins. The learners are asked to give and receive feedback, record what is considered and think about ideas to improve the highlighted experience for the user (testing) (abrahamabulafia, 2012).



Figure 24. Students working on the D-School exercise. 2018.

This exercise, through reflection, helped learners and facilitators participate comfortably with human-centred design as a concept where the more traditional approach to solving problems within a culinary context relies on tacit knowledge through prior experience (fiure 24).

Other tools we can implement to help with the creation of ideas within our HCD context include:

- *Questioning assumptions.* Most culinary institutions have an orthodoxy – a set of deeply-held beliefs that everyone follows when it comes to “how we do things around here.”
- *Triggered brain walking.* Several aspects of a problem are highlighted. Each participant contributes a written possible solution. Their paper is passed through the group, each adding to the previous list of solutions adding a wide diversity of ideas.
- *Picture prompts.* Visual technique results in surfacing intuitions, emotions and feelings. This makes them especially valuable for brainstorming solutions for experiential challenges that involve people. It’s also an easy and fast technique that any group can use to generate ideas (Frey, 2013).

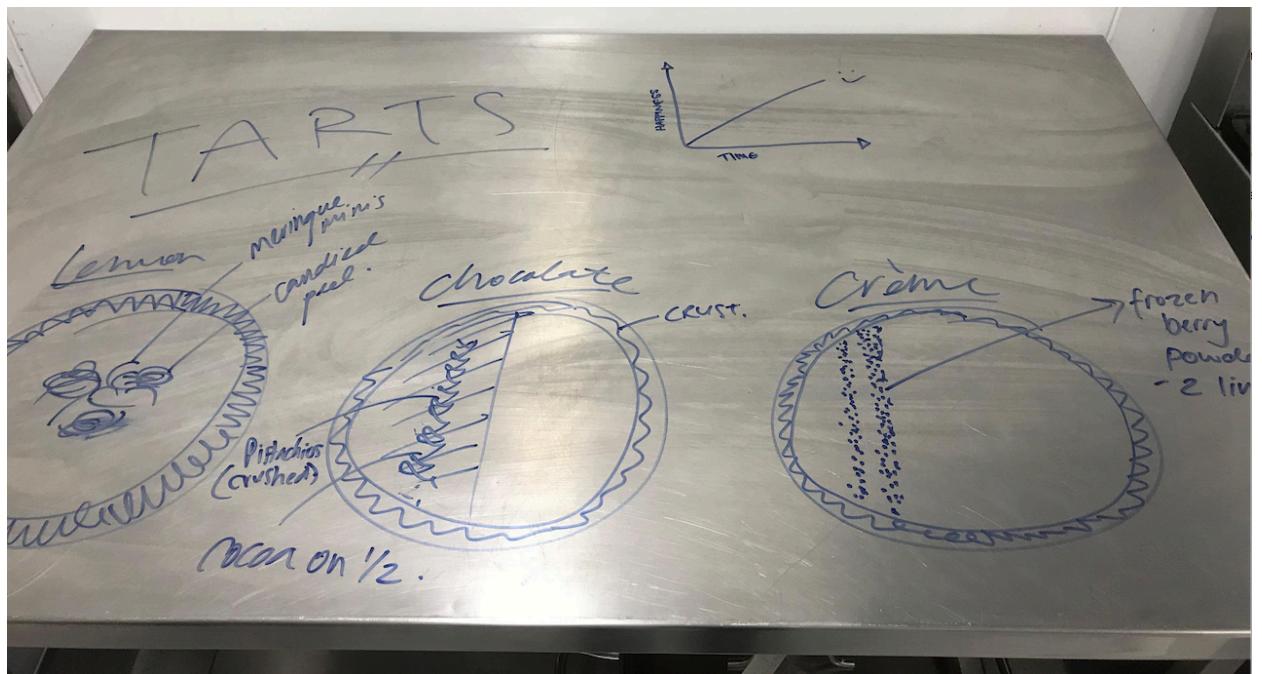


Figure 25. Students' picture prompts. 2018.

9.4.4 PROTOTYPING

The prototyping stage is where I institute a dose of pragmatism into my delivery. Not only for practical, commodity based reasons, (waste and cost) but to ensure sustainability can be achieved in ecological outcomes, financial stability for a project and human resource management, looking after the people involved.

At the root of culinary prototyping lies research and concept development. Without reliable research and a strong, concise concept, prototyping with food commodities (from personal observation) tends to fall well short of the learner's expectations. There are always exceptions to the rule where brilliant outcomes have been achieved through good research and creative thinking. A Swiss Executive Sous Chef I once worked with likened these events to 'even a blind chicken will find a piece of corn every now and then' (Blum, personal communication, 1997). However, these nuggets of corn allow learners to gain confidence in and with culinary experimentation. In order to achieve a pragmatic human-centred design approach we can and do 'ring-fence' the given brief with limitations that mimic actual events within a culinary context. These could include budgetary restraints, time frames, the use of foundational preparations within their delivery, seasonality constraints or consumer demographics i.e. vegetarian, gluten free or vegan.

This approach results in learners not going too wide within the prototyping stages, preventing confusion and keeping the project on concept. I believe, as I have throughout my transition from a more behaviourist, master/apprentice pedagogy, to a more constructivist, project based learning and teaching style, there is a need for balance between the two approaches without disregarding either. Jacobsen (2015) states that although a constructivist approach is learner-centred, the role of the facilitator or teacher as a designer is essential. "The most powerful thing teachers do to engage students is to design engaging, meaningful, and authentic work and technology-enhanced learning experiences". The role of instructional (behaviourist) design is necessary in order to create, implement and assess learning outcomes. But this is not done through better instruction alone, instead through combining instructional design methods with constructivist principals, "teachers who design for peer collaboration and individual reflection on learning cultivate stronger learning outcomes" (Beaton, 2016).

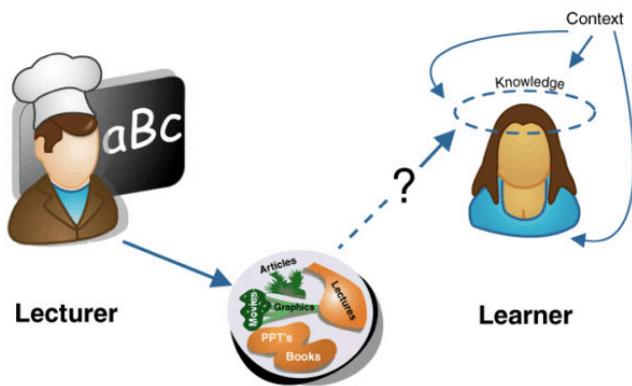


Figure 26. “Dish” of well prepared information. (Bjørke, April 2014). Retrieved from <https://www.hastac.org/documents/pedagogical-approaches-online-learning>.

Prototyping exercises within a classroom environment versus a kitchen environment highlights many variables and considerations when dealing with perishable food products. I have found prototyping within the classroom expands learners’ thinking and allows the learner to consider untapped possibilities within any product range.

I have observed with this project in particular ‘frontloading’ a ‘dish of well-prepared information’ (Figure 25) alongside the development of a strong and relevant concept, allows our learners to prototype with purpose and develop innovative outcomes without wasting time or valuable ingredients.



Figure 27. Students work on prototyping. 2018.

9.4.5 TESTING

The testing phase of the pragmatic human-centred design approach relies on several methods of feedback. Classroom feedback and discussion gave the learners the opportunity to review their own strengths and interests leading to iteration after testing. Observational research coupled with expert opinion (lecturer and guest discussion) gave credence to the feedback. The Tastelt™ platform gave feedback graphically, quantitatively and qualitatively, and the direct communication with consumers gave an empathetic viewpoint that could be iterated and built on.

As this course was very short, delivered within only four weeks, I needed to make sure the feedback to the students was immediate, relevant and engaged them directly to consider and implement change while producing a better experience for its participants while ensuring new learning was taking place.

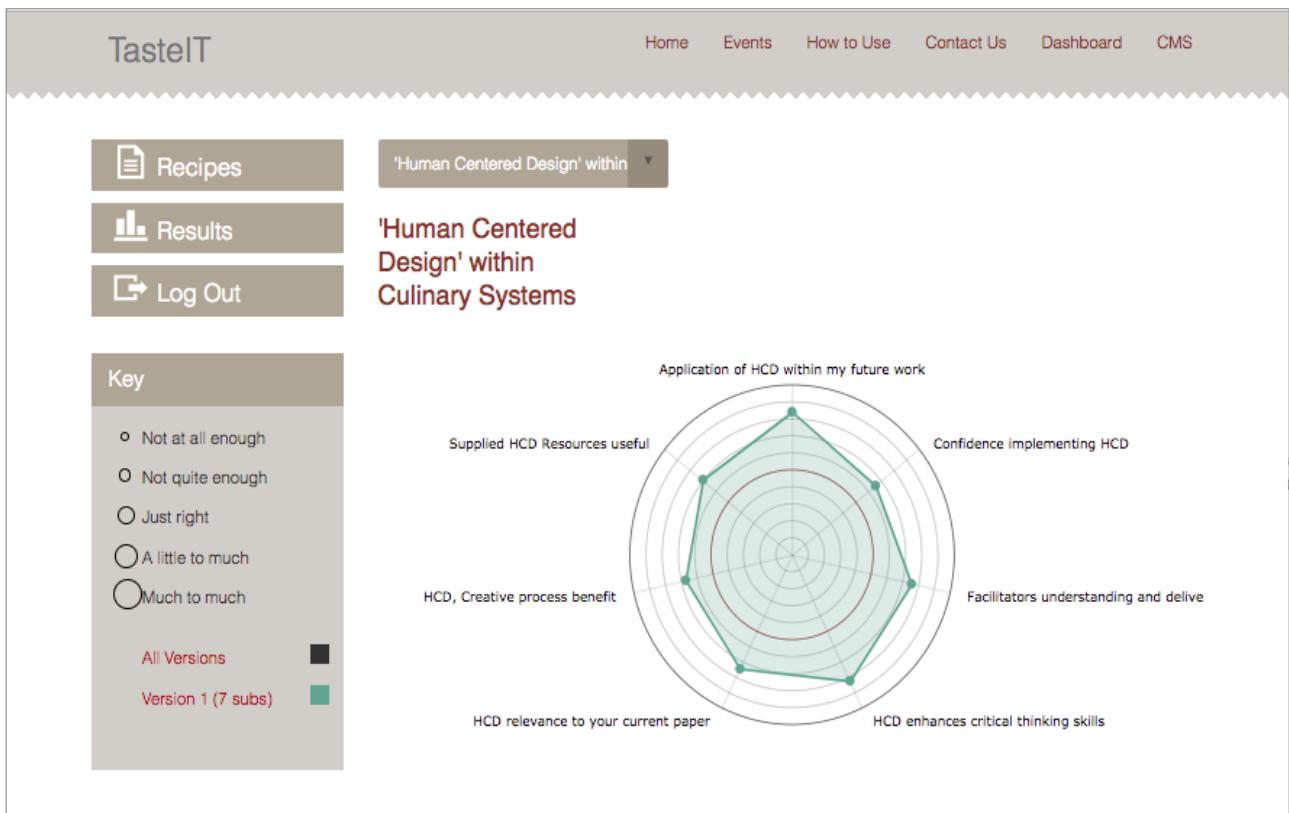


Figure 28. TastelT™. (Food Design Institute, 2018).

Students' Comments

Version 1

- Even though, designing menu according to information gathered of HCD was quite tricky, it was very useful. Especially in order to design product for them to make sure they want to come back.
- It is definitely a useful knowledge to have, and I think I will need to study it more in depth to know what to design for customers or clients correctly.
- Learning in depth about HCD was probably up there with the most valuable things I have learned in this course.
- Steve taught this thoroughly and always made sure we kept it in the forefront of our minds. I feel after having done this paper I have HCD as a priority when making decisions where as previously it was just somewhere off to the side as a factor to maybe consider if it worked in. Thank you for being such an awesome tutor Steve!

- It would have been ideal to actually have made a persona to always refer to. We had conflict with what we thought would be the best solution. HCD was usually a second thought to our biases on what we wanted to do, even though it was unintentional.
- I think that it was done very well. Although it was difficult to convey the HCD idea/concept across both the different groups, it was done very well and there was a clear understanding of what it was and why it should be used :) good luck with everything!
- Was a rewarding project but HDC wasn't intertwined enough.
- I found HCD very interesting and once explained easy to apply to the project.

This feedback has and will influence further development in human-centred design within culinary arts education. Through my reflective practice I have captured the learners' new learning with a view to extending their knowledge further by way of designing new and innovative pathways of understanding.

We use reflection in and on practice throughout all stages of human-centred design. In the next section a snapshot of possible models of reflection are considered.

10 IMPLEMENTING REFLECTIVE PRACTICE WITHIN HUMAN-CENTRED DESIGN

Reflective methodology, what is it and how can it be implemented within human-centred design? Reflective practice dovetails well within human-centred design in that reflection is implemented at each stage of the design process. “Reflection is part of learning and thinking. We reflect in order to learn something, or we learn as a result of reflecting, ‘reflective learning’ emphasises the intention to learn from current or prior experience” (Moon, 2005, p. 80).

No matter how engaging and authentic the context that we as educators teach in, we cannot predict and model every situation that our students would need to demonstrate their knowledge within. Reflecting on new information and making connections to prior learning, and diverse contexts is a critically important skill for the 21st century workforce. (“Reflective learning prepares students for the ‘real world’ | Centre for Teaching and Learning,” n.d.).

In his seminal work on reflection, Donald Schön considers reflective practice as the way participants become aware of their individual, tacit knowledge while learning from experience. He discusses reflection in action and reflection *on* action. Reflection in action can be defined as reflection on behaviour as it happens, while reflection on action can be explained as reflecting after the event, to revise, analyse, and appraise any given situation. Both forms of reflection are implemented throughout the Human-centred Design process (Schon, 1987). Learners are often amazed at the skill, competency and ease in practice of experienced practitioners when they are first introduced to the workplace. These experts often cannot explain how they know what they know but display ‘tacit knowing-in-action’, sometimes described as tacit knowledge (Schon, 1987). Being able to reach conclusions or solutions quickly, almost instantaneously, will undoubtedly have been learned through many past experiences, (Bassot, 2015) and can be considered as reflection-in-action or a form of knowing-in-action. It is Schön’s assumption that “competent practitioners usually know more than they can say” (p. 8). This illustrates the classical, generally applicable difference between ‘knowing that’ and ‘knowing how’.

Mitchell et al. consider reflection and reflective practice as “an important part of the design process” (Mitchell, 2012, p. 10) and conclude “reflection is integral to learning and an important part of any practice and complements evaluation. Once the context is analysed the student is able to reflect and implement any change resulting from the reflection”.

This is a necessary part of the culinary design process. Reflection is a skill that will develop and become evident as the students progress through each year. It is important to note that this process of analysis and reflection is repeated until the students can synthesize their learning while drawing conclusions on fixes to problems or issues. Mitchell's assertion of the importance of reflection is validated through several reflective practice models including Borton's Reflective Activity Framework.

10.1 BORTON'S REFLECTIVE MODEL

This model is depicted as a simple flow chart and often used with novice or student practitioners to introduce reflective practice as a tool within human-centred design. It incorporates three simple questions and asks from the experience being reflected upon: What? So, what? Now what?

The model allows learners to reflect in the “real world of practice” (Jasper, 2003) therefore allowing the novice to self-analyse their developing practice.

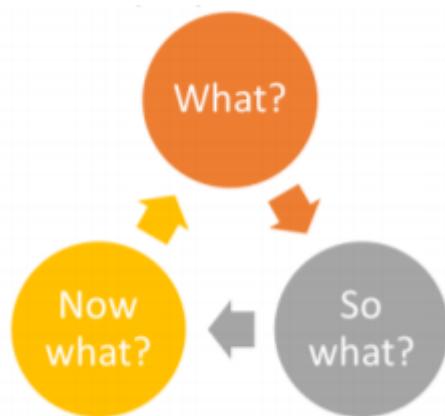


Figure 29. Borton's (1970) Reflection Model.

Retrieved from

<https://www.nzno.org.nz/LinkClick.aspx?fileticket=3oTgEOEbXws%3D&portalid=0>

Borton's Reflection Model	
What? <i>Describes the experience</i>	<ul style="list-style-type: none"> • What was the problem? • What was my role? • What happened? • What did I do?
So What? <i>Analyses the experience</i>	<ul style="list-style-type: none"> • What was so important about this experience? • What did I learn?
Now What? <i>Synthesizes the experience</i>	<ul style="list-style-type: none"> • Now what do I need to do? • Now what might be the consequences of my actions? • Now what do I do to resolve the situation/make it better/improve my users?

Table 1. Borton's Reflection Model. (Borton, 1970).

10.2 THE ERA CYCLE

As in Borton's Reflection model in Figure 22, the ERA cycle highlights three main components of reflective practice: experience, reflection and action. The object for using these tools being the learner's self-direction through experience, reflection in and on practice (Schon, 1987), while considering possible alternate actions to improve the outcome. This is illustrated in Figure 29.

- Experience – *what happens*
- Reflection – *the process of thinking through the experience*
- Action – *what actions we take based on those reflections*

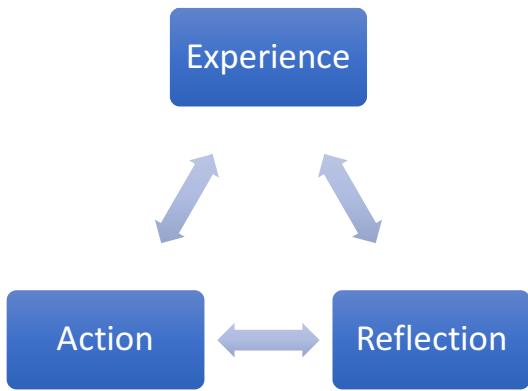


Figure 30. ERA Cycle. Adapted by Author, 2018.

10.3 KOLB'S EXPERIENTIAL LEARNING CYCLE

Taking the reflective model further I considered Kolb's Experiential Learning Cycle (1984), which, as noted by Bassot "when considering Kolb's cycle, it is important to remember that it is just one explanation of how we learn from experience and, like any other model, it is important to critique it" (2015).

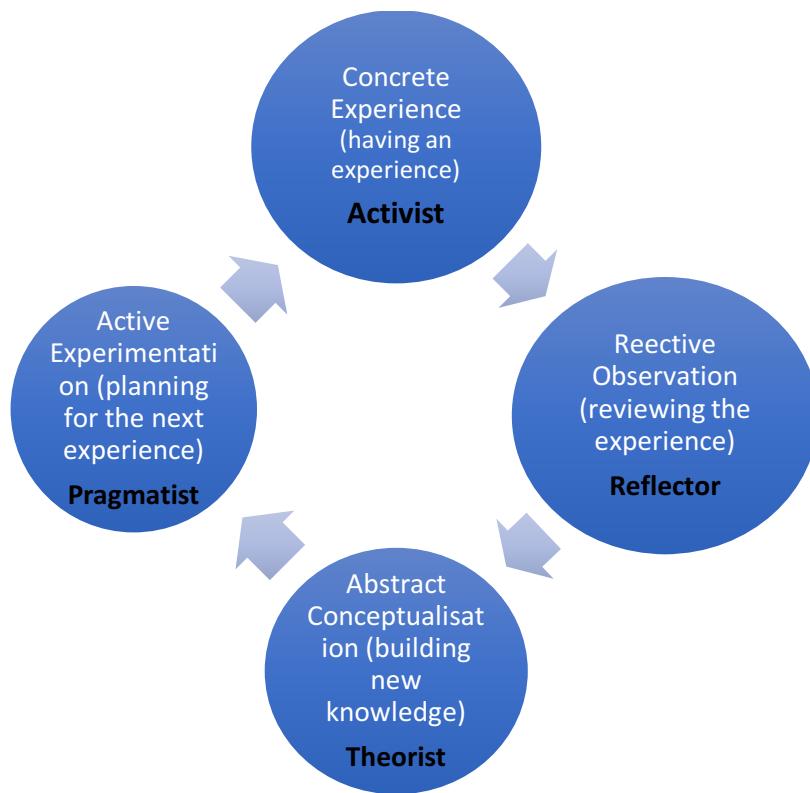


Figure 31. Reflective learning style. Adapted by Author, 2018.

Kolb claims that the cycle often starts with the concrete experience, sequentially moving on to reflective observation through abstract thinking and experimentation and planning, and finally back to the concrete experience. Our learning styles, Honey and Mumford argue, could also play a key part in our considered solutions and to where we begin on Kolb's cycle (2000).

Learners with a strong Active or innovative learning style often start the cycle at the concrete experience, skipping the reflection (reflector) and abstract (theorist) stages, as they want to delve into the experimentation stage (pragmatist) to build a faster solution.

Learners who identify as Reflectors will relate to their possible solution/s more fully if they have had time to reflect 'on practice' and consider many possible scenarios from their experience.

Theorists, 'on reflection', may wish to research important details and models to see how they may be applied to their experience. They may wish to see how their selected theories work in practice to bolster their claims for their solutions.

And finally, the Pragmatist may want to plan to experiment before they act but give less attention to the Reflector or Theorist stages, giving more credence to the doing rather than the reflecting.

Kolb's assertion of a unidirectional cycle or sequence of events may be considered as flawed, as a model such as his will beg the question 'will it always happen like that?' With the invariable answer 'probably not'. Whether taken in sequence or multilaterally one thing is clear, reflection at each stage of the sequence or model will maximise the participant's learning (Bassot, 2015).

11 CULINARY SYSTEMS DESIGN

"It's what you learn after you know it all that counts" ("Negotiation Tip," 2012).

The Culinary Systems Design paper within the second year of the Bachelor of Culinary Arts degree was chosen as the vehicle to deliver an innovative human-centred design approach in culinary design. The usual process in designing a culinary system or process draws from the established kitchen protocols of the classical brigade and mise en place code of culinary or kitchen practice.

Before looking at an alternate, educationally influenced approach to culinary systems design that may benefit both the kitchen environment and the knowledge base of the learner, it would be prudent to consider the over-arching culture of the kitchen environment and the perception of the actor's identity within that environment. Identity is more than a set of hypothetical considerations, it is above everything else, a lived experience for the individual concerned. (Palmer, Cooper, & Burns, 2010). Palmer also argues on culture and identity, "many of the accounts from contemporary chefs highlight the importance of the kitchen environment in terms of understanding chef identity. This environment traditionally resembles a highly organised, rigidly hierarchical, tightly knit community where individuals are expected to learn and abide by the rules and behavioural norms of the group" (Palmer et al., 2010). This rather rigid or inflexible environment creates a working or learning space that supports a participant's identity that has within it both visible and hidden aspects. Visible aspects such as hierarchical positioning, work conditions or salary sit alongside the unwritten rules, attitudes and traditions that truss and bind the kitchen brigade or kitchen community together. The workplace involves a myriad of opportunities for interaction not only of a social nature but also as a form of socialisation inducting the worker as to the correct way to behave. (Goffman, 1959).

Within the kitchen community, (or 'tribe' as Antony Bourdain put it) there is a bond, a relationship that is formed through the close quarter battle for space, through times of unbearable heat, through hours of toil on their feet, through the shared pain of burns, cuts and scalds, the tribe will band together and look after each other's back in the face of any issue that may cross the line of the pass.

This may sound melodramatic to those outside the community but for those who have passed the indoctrination of the kitchen brother/sisterhood, with all its habitual traits, and cultural traditions, acceptance into this social structure can be thought of as a rite of passage that cements the new entrant into this restricted community.

Language too plays a huge part in the traditionally accepted culture of kitchen life. Language like ‘oui, Chef’ (yes, Chef) predominates all within the traditional brigade structure. As a junior, arguing or bemoaning how you think things should be done would be seen as wasted effort and disruption to the tried and true.

A typical kitchen conversation may play out like this:

Chef: “Separate 200 eggs and make sure you don’t get any yolk in the whites.”

You: “Yes, chef.” (Translation: “I’ve made this before, I know not to get the yolk in the whites.”)

Chef: “Why did you add the butter to the dough now? I told you to add it last.”

You: “Yes, chef.” (Translation: “Yesterday you told me to add the butter first, so now I’m totally confused.”)

Chef: “Stop feeding the sourdough starter. I did it already.”

You: “Yes, chef.” (Translation: “Actually chef, you started to feed it then got a call and walked away. So I thought I’d feed it because you forgot.”) (McCoy, 2015).

The habitual traditions live on within the language of not only what you say, but just as strongly in what you don’t. No matter what the required outcome, a food truck, à la carte service or trying to find that elusive missing blue plaster, there is nothing like an open mind, a fresh pair of eyes and open conversation to discover new resolutions for a situation. A suggestion would be to let go of the “yes, chef” culture and focus on the whole kitchen as a team effort, a collaborative endeavour that includes encouraging input and creativity from every team member, one that puts the user at the centre of the activity suggesting again, a human-centred design approach.

So, with a very broad view of kitchen culture that considers more than one perspective, I have considered how one could redesign; designing systems with a new and contemporary outlook that takes all stakeholders’ needs into consideration.

11.1 NUTS AND BOLTS

To think creatively, we must be able to look afresh at what we normally take for granted. (George Kneller)

After deciding to use the Year Two Bachelor of Culinary Arts degree, Culinary Systems Design paper as a launchpad for the integration of pragmatic human-centred design, the delivered project (farmer's market and individual retail product lines) proved beneficial to multiple end users, consumers, learners and facilitators.

Both pleasing and surprising outcomes were observed equally from a pedagogical and personal perspective. Culinary systems design (CSD) in the educational context traditionally involves a very linear approach to mise en place ('everything in its place') with the main aim of CSD to produce, store, package, serve and sell or deliver designated food products and/or experiences in an efficient, repeatable form. The mise en place within systems design includes the creation of standardised recipes while scaling them to the required volumes. Of major consideration within kitchen systems design are strict food health and safety compliance and recording as well as time in motion efficiencies in regards to the placement of staff, product and equipment. I needed to take this content, overlay what I believed to be the beneficial, human-centred design approach to learning and teaching, while taking into account the learning outcomes that have to be met by the curriculum's course outline. These course outlines are split into two criteria, Learning Outcomes and Indicative Content.

- **Learning Outcomes** include: produce menu items from a given brief using advanced and contemporary culinary techniques, research and analyse alternative methods of production, employ advanced culinary industry techniques and systems, recognise and produce a quality product to commercially acceptable standards, critically evaluate methods and processes used and research and analyse alternative methods of production, investigate and implement sustainable kitchen practices.
- Indicative Content: consider advanced contemporary kitchen technique equipment and contemporary culinary trends, continue to analyse and consider culinary industry techniques and systems for the preparation and manufacture of food products and experiences, continue to research and analyse alternative methods of food and service production.

The capturing of evidence and formative assessment for the Year Two, Culinary Systems Design paper was a fifteen hundred word individually written report, daily and weekly observations through reflection, bolstered with peer and lecturer feedback on individual performance.

11.2 FINDINGS

This Master's project and its associated outcomes evoke new understandings, critical thought and reflective processes for its participants. This 'new thinking' is evidenced by direct feedback from the learners within the Year Two, Bachelor of Culinary Arts program, on which this thesis is predicated. It highlights a positive iterative process based on comment and feedback from the desired end users, being the consumers of the food and food-based experience. Just as importantly the research draws attention to a shift in practice by its facilitator, myself. This is confirmed by the positive effect that a pragmatic, human-centred design approach yields, bringing creative solutions to culinary design problems.

This highlights a shift from a behaviourist pedagogy to a more contemporary constructivist approach to teaching and learning while recognising the usefulness that imitation and habit formation, behaviourism, has in a craft based trade or profession to hone motor skills and to help with the understanding of language in the culinary cultural context.

It has been my intention throughout this Master's project to capture, record and compare how a pragmatic, human-centred design approach to culinary education can improve the understanding and outcome for all stakeholders, learners, end users and facilitators.



Figure 32. Food Design Institute culinary experience event. (Gibson, 2017).

The most prominent finding to be realised through this MPP project has been the personal awareness that alternative teaching and learning methods can be implemented within any given context. Only through unexpected circumstances in this project where human-centred design was not able to be used within a prepared context did I realise that the same method, or multiple methodologies were not only possible but preferred (refer discussion on the food truck). This most important outcome has been extrapolated throughout my thinking within the MPP project and lead me to feeling comfortable with and endorsing multiple methodologies and modes of teaching and learning. The learner feedback through the Tastelt™ platform on their perceptions of human-centred design within culinary systems endorses my assertion that the consideration of alternative teaching and learning methods may be applied in most contexts and offers a wider view of possible solutions to problems than a singular method.

Within the human centred design project, the implementation and use of the Food Design Institute's Tastelt™ platform has been an invaluable tool in gathering feedback for both the sensory and experiential outcomes of students work. In this case the learner was able to gather, analyse then iterate guest, peer and lecturer feedback via Tastelt™ on their individual contributions as well as their combined, overall culinary experience.

The quality of the formative feedback gave the learner the opportunity to improve their offering in line with the wants and needs of their end user. By analysing the comparative weekly feedback on their work the learners were able to self-direct their iterations based on both quantitative and qualitative critique.

11.3 TRANSPARENT STUDENT AND CUSTOMER PARTICIPATION WITHIN THE PROJECT

The Culinary Systems Design Paper was delivered over four weeks. Week one comprised of explaining exactly how I was going to use student feedback within my Master's project, the front loading of the course requirements, defining outcomes and most importantly communicating how human-centred design would benefit the project outcomes. Weeks two, three and four saw the implementation of a farmer's market and a range of group products delivered to the public within the Hub at Otago Polytechnic.

Qualitative, quantitative and anonymous data was captured from the student project end users, their customers, via the Tastelt™ platform as a way to use this human-centred information to iterate the products they offered and the user experience, week to week. This involved the use of an incentive, a hamper of baked products, to entice their customers to log-onto Tastelt™, participate in a survey and go in the draw for the prize. The consumer information garnered from these surveys was invaluable to the iterative, human-centred design process and confirmed its validity and value week on week.



Figure 33. Survey participation code. (Baldwin, 2018).

This digital feedback was gathered completely anonymously and remains untraceable through the Tastelt™ platform. The only participants identified were the winners of the hampers by their ticket number only. This satisfies any ethical concerns relating to participant identification. I was concerned early on for student anonymity when considering how to gather feedback, comment and critique on the delivery of human-centred design and its use within my Master's project. As stated within my ethics application for this project, all participants were made fully aware of the research project in the initial classroom overview of the selected paper and, given the choice whether to participate or not by simply not logging onto Tastelt™ and participating in the requested survey (Figure 33). No student's personal information was accessed or stored.

Only anonymous data on the connection, understanding and relevance of the use of the human-centred design method and outcome was asked for or recorded. The analysed data was only to be used to influence my delivery and teaching practice and influence my autoethnographic research outcome. The resulting data was more a reflection on the pragmatic mechanics and set-up of the human-centred design approach and will be used as an iterative tool for improving my teaching practice. The learners involved with this project were given ethical information sheets and consent forms informing them on the project, how the data would be used and assuring them of their anonymity throughout the project. Helen White, the Food Design Institute's administrator has these securely filed.

11.4 CULTURAL CONSIDERATIONS

Cultural considerations within any group or demographic is part of our everyday context within all hospitality programs. I consider each new scenario individually as to how I approach any cultural issues when embedding human-centred design as a change in my practice.

Working as a culinary arts lecturer for the past 10 years I am aware there are cultural sensitivities and protocols surrounding food and its preparation, especially in regard to function work where food can and often is prepared outside of the kitchen or work environment. This awareness is bolstered through ongoing conversations with Otago Polytechnic's Kaitohutohu office specifically, Tumuaki Whakaako Ron Bull.



Figure 34. Pig prepared for spit roasting at Manaaki. 2016.

12 MY CRITICAL REFLECTION ON THE MPP JOURNEY

I could not imagine my grandparents or parents giving any thought to the ‘why’ we learn, teach, behave or interact as we do. They would have considered, that is the way it has always been done. I reflect on how I have viewed the world for the first forty-five years of my life and can see a mirror image of what has gone before played out in my experience. So, what has changed in the last five or six years that has allowed my thinking to expand out of my ‘cave’? (a reference to Plato’s “Allegory of the Cave”). The answer: ‘my new learning’ through a reflective process by way of several awakening moments. I would regard myself as a practical problem solver with a specialised interest in process and systems for project work. I have always considered myself a manual worker not an academic. I do believe however that through my work on the Bachelor of Culinary Arts program the practical and the academic have converged as I am dragged kicking and screaming from my ‘cave’ into the light... enough analogy.

From the beginning of my MPP journey I believed that basing my work firmly within a quantifiable, project based construct would simply require following a linear pathway from point A to point B. Then, having met the prescribed assessment criteria I would be awarded another ‘extrinsically’ motivated qualification to add to my collection. Throughout my working life this has been my experience, to gain and build on qualifications; I assumed the MPP journey would be no different. So why did I even begin this journey? What were the drivers behind wanting to reach the next level on the academic ladder? Looking back into my learning agreement for this project has allowed me to draw a comparison with what I thought I would learn and what I have actually come away with from the MPP process. The overarching title for my project was to ‘Develop pragmatic learning principles through embedding human-centred design’ and my predicted learning outcomes were ‘to gain personal growth and knowledge by implementing pragmatic human-centred design; to track, record and present my personal new learning and to track, record and present how learners transfer new knowledge through a human-centred design approach’. I was expecting to simply follow a human-centred design based lesson plan, produce data affirming my position and present a reflection, for my Master’s qualification to be awarded.

I had thought the learning outcomes of my project to be a confirmation of using human-centred design as some kind of silver bullet to enable facilitators to create a new learning environment where learning itself was an organic after-effect of the human-centred design process.

Through delivering and critically reflecting on my whole project, I can now draw the conclusion that human-centred design while being a valuable tool may offer part of a solution but is far from being the only answer to any problem.

I say extrinsic motivation because that was my initial motivator in undertaking a Master's program. To tick a box if you like, to attempt to secure my current employment by gathering the required post graduate qualification to teach at a degree level. This way of operating is nothing new at all for me. Throughout my career I have assumed the gathering of badges, credentials or qualifications would lead to the legitimisation of my contribution and opinion for whatever context I was operating within, as long as I had a qualification to support my perspective.

I have come to realise the value I personally put on the intrinsically gained qualification or experience. I weight the intrinsic higher than the extrinsically motivated, and if I do this then it follows that other learners in whatever context will consider their learning the same way.

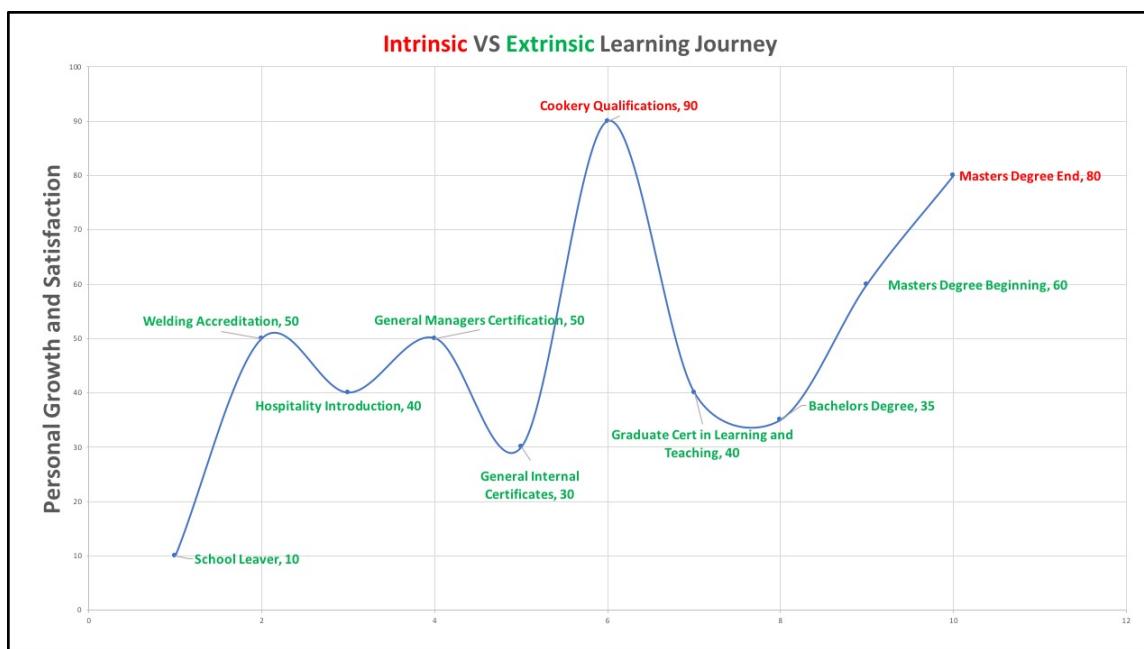


Figure 35. My Learning Journey. (Authors own, 2018).

As depicted in Figure 35, I value my humble trade certificate in professional cookery above my bachelor's degree and graduate certificate as the higher qualifications were a means to an end, in that I had considered them a requirement for my employment, not a vehicle for growth and development. The Master's degree in the beginning served the same extrinsic purpose, where this has evolved into a more intrinsically motivated learning platform for self discovery and growth.

I have since (through my MPP journey) come to the realisation that pretty much everyone can gain a qualification and yes invariably your skill set grows with participating in new learning and research. But gathering badges, credentials or qualifications at any level does not automatically equate to learning. Learning in my opinion can be measured by growth, personal growth and in my case confidence. Confidence to share my perspective from an informed standpoint, backed up with sound research which is more than just a personal opinion. This growth, in the first instance has been developed through wider research. Not my usual attempt at a quick validation of a position through descriptive research but wider research that has sparked an interest in new learning for new learnings sake, an ‘intrinsic’ motivation for new learning. An example of this intrinsic motivation has been sparked for me by Moon’s writing on the ‘assessment of reflective learning’ (Moon, 2005) specifically where the purpose of the reflection is to improve their learning from the reflection itself and not necessarily to grade or give a pass/fail to the reflective piece. This formative assessment on reflection has inspired a more holistic assessment process to be implemented into the Bachelor of Culinary Arts, Year Two final paper this year. The trial of which may influence how our degree papers are more holistically graded and marked into the future.

By widening the scope of my research from descriptive to both applied and problem oriented I have been able, through this MPP journey to see how using even such a simple model as the double diamond can help a learner to build on their research by researching wider, defining or focusing then developing a position or finding solutions to problems.

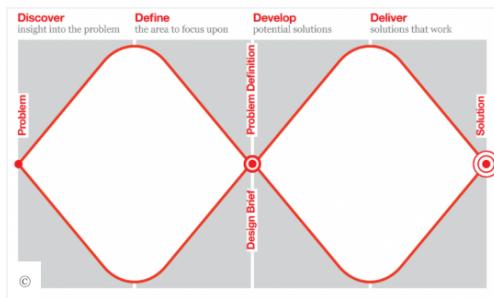


Figure 36. Double Diamond. (Design Council, 2018)

I have until now been guilty of brushing over these sorts of valuable resources, sometimes finding them a little long-winded and missing their relevance to a problem. I have to admit until going through the MPP process myself I had not fully understood how deeper research could bolster and motivate new learning. The notion that research for any other purpose other than to confirm

a position was until very recently something I had not considered often. One of the main outcomes from my new research capability is confidence.

Confidence in being able to both articulate and defend a position while having confidence in finding other ways to consider resolutions to problems. Reflecting on how I consider alternate methods in problem resolution has till recently been restricted by my own fairly narrow view of what would be acceptable or not within my professional practice.

A behaviourist, Master/Apprentice approach to culinary learning and teaching is the norm within both the workplace and within the culinary tertiary environment. This behaviourist approach can lead the facilitator (me) being pigeon-holed as a gatekeeper to legitimate culinary knowledge where the learner needs approval in the form of a grade, badge or qualification that authenticates their learning. What I have become cognizant of through my MPP is, using and researching other methods of learning and teaching within my project including a move to a more constructivist approach to human-centred design highlights there is more than one learning and teaching lens to look through and those lenses broaden perspective for both learners and facilitators – see Figure 34.

I have started to reflect, not react, to problems or issues arising and see the benefit of simply being able to say, ‘I don’t know’ giving time to find not the first answer but the best answer to an issue or problem. This exemplifies a shift in expectation as the lecturer or chef is lauded as the font of knowledge.

Is this a shift in my practice through the MPP process? I consider it an addition to my teaching and learning toolbox.

Reflecting on the autoethnographic methodology for this project. I have lost count of the number of notebooks, folders of scrap paper, ring binders and Word documents I have accumulated throughout the MPP process. One thing common to them all is the self-reflection each note promotes as part of my whole new learning experience. The layered autoethnographic account of my work has focused on my experiences throughout the MPP journey alongside data, abstract analysis and relevant literature. This has allowed for a narrative on how I see myself growing into the wider culture of culinary education through the accumulation of new knowledge.

I reflect on the whole MPP journey and think about how layers of learning have developed along the way. The MPP project has allowed me to experience and interpret new learning through multiple methods not just observe or report on them. Confidence in developing learning and

teaching opportunities have developed as my mindfulness and awareness that a more inclusive teaching and learning environment can yield far more possibilities to develop new products, processes or find solutions to problems than a singular standpoint to learning does.

12.1 NAVIGATING THE LABYRINTH OF HUMAN-CENTRED DESIGN

This Master's project was initially inspired by the pragmatic and tacit experience of a Chef Lecturer wanting to extend his research capability into the contemporary practice of human-centred design.

There has been a wealth of new learning, shifting of practice and personal growth that has come about from the unexpected educational and practical outcomes the Master of Professional Practice journey has afforded. For both the facilitators and students who participated in this Year Two, Bachelor of Culinary Arts paper, on which this Master's is based, a strategy, pathway and toolbox has been created to further design thinking within their new learning and practice. Not that everything that had gone before needed change, merely a fresh look, consideration and a willingness to take the blinkers off without completely losing all constraint.

The Otago Polytechnic Master of Design Enterprise was considered as a thought provoking springboard for the formation of an initial question, theme or direction for this Master's in Professional practice. This is where the term 'design thinking' led to research on human-centred design and became the focal theme of the work. Taken directly from the Otago Polytechnic web page the description of the 'Master of Design Enterprise' steered the HCD ship through to its current iteration.

Otago Polytechnic's Master of Design Enterprise has "design thinking" (Human-centred Design) and user experience design at its heart. You will become highly skilled in this groundbreaking methodology, enabling you to resolve issues and enhance people's experiences... By recognizing that design thinking is a strategic tool that is as much about ways of thinking as about ways of production, it prepares you to think laterally and critically as you innovate, create new products and better systems, and contribute to a more satisfying environment (Otago Polytechnic, 2018).

This was the inspiration needed to embark on a slow awakening, where the growth in critical thought sprung from honest research, observation, conversation and a willingness to explore (but not exclude) the doctrine of classical culinary practice. Working towards an umbrella theme or

question that allowed for the consideration of pragmatic, real world requirements that would benefit all stakeholders led to human-centred design in that it created reference points for our learners and facilitators to form (in the first instance) an empathetic view of their customers' likes and requirements.

The umbrella statement or question was finally condensed down to 'Developing Pragmatic Learning Principles through embedding Human Centred Design'. Through the reflective process judgements were drawn on how the use of human-centred design impacted learning and teaching throughout the paper. These reflections form the basis of new learning, tools and resources which in turn will influence the future delivery of culinary design pedagogy. Using these reflections, I have built and developed further learning systems and processes to advance new learning for our facilitators and learners.

The principal learning from this facilitator's perspective has been a recognition that a method of practice may be a moving target. Not necessarily fixed in the use of a behaviourist, cognitive or constructivist model rather, a choice over the pedagogical continuum, depending on the context.

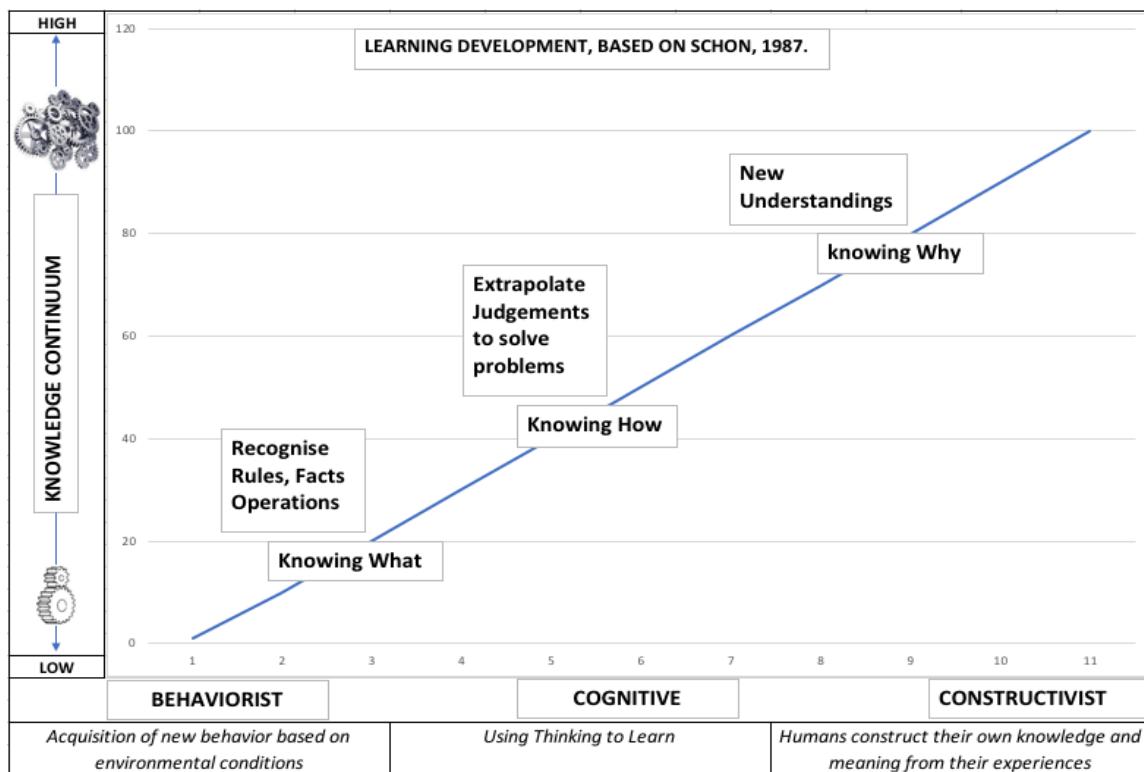


Figure 37. Learning Model. (Adapted from Schon by Author, 2018).

As suggested in Figure 37 above this Master's journey proposes not a shift in practice but an awareness of multiple ways to practice. Some, or indeed most culinary professionals who have

experienced the Master / Apprentice structured approach in their training, very rarely step out of the self-imposed legitimatisation of the French Grand Cuisine ideology. Through this academic enquiry I have discovered another way of disseminating or sharing with my learners my experiences as a chef. Exploring these experiences through the lens of an end user allows these verbal experiences or stories to come alive and be considered within a learner's context.

Not that these many and varied narratives or descriptions of problems need change rather, the choice or blend in the method of delivery is now considered. Would the audience or participants benefit from a behaviourist approach where mimicking or repetition of a skill based process be of value. Would a cognitive approach to a problem or issue be beneficial where, the learner perceives a judgement through memory or reasoning and finds a solution through conscious activity? Or, would implementing a constructivist paradigm be the favoured solution where a learner constructs their own understanding and knowledge through experience and reflection?

Finally, and this is where my change in thinking and practice has evolved to, I try to now employ a combination of all three positions that intersect with the learner's experience, each playing a role and bolstering my facilitation in learning and teaching.

This intersection of pedagogical methodologies (Figure 31) allows for multiple sources of knowledge to be considered not only the traditional, behaviourist, master (font of all knowledge) and apprentice paradigm. This tension between traditional culinary education, project based or academic based learning environments has been alleviated (for me) by a shift in thinking to a blended approach and modes of delivery.

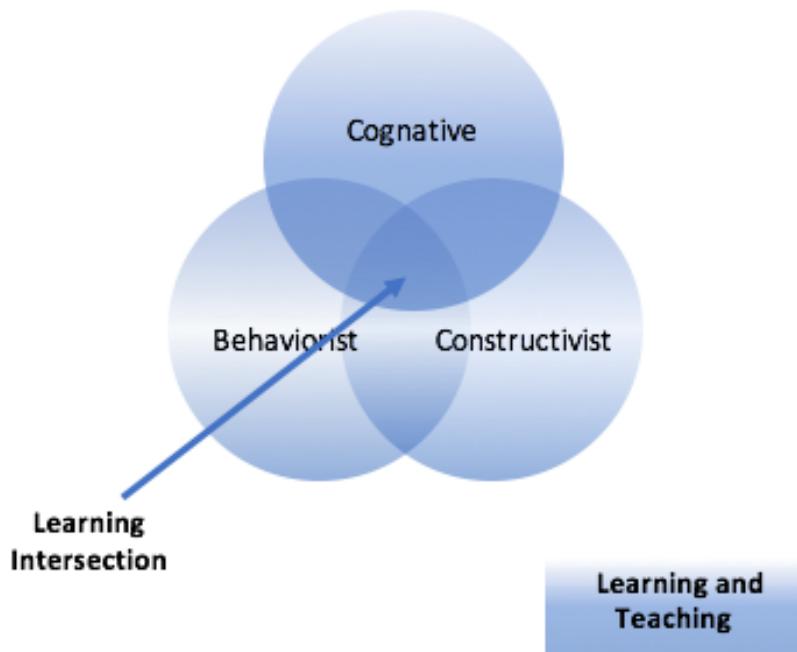


Figure 38. Intersection of pedagogical methodologies. (Author, 2018).

12.2 YOU DON'T KNOW WHAT YOU DON'T KNOW, DKDK

The consideration of this blended approach has led me to further research into ways of knowing. Central to the advancement in my thinking and practice as a culinary arts facilitator lies the awareness that my new experiences or knowledge highlight that 'I didn't know that I didn't know' and extends my awareness to encompass new understanding. This awareness creates a platform for the innovative cross-pollination of ideas to occur from the diverse cultural, discipline and ages of the learners from within the learning and teaching environment.

Sean Tierney considers our knowledge awareness and writes:

*We **know** about one sliver's worth of stuff, we speak English, use a computer or read a book, **things we realise we know**. We realise there are **things we realise we don't know**, speaking Dutch (probably) or how to bull fight. But, the vast majority of knowledge are **things we don't know, we don't know**. From time to time new knowledge is obtained through experimentation, first-hand experience or taught experience. Depending on the*

content this knowledge moves from either the things we realise we don't know or, the things we don't know we don't know, to the things we realise we know. (2007)

Body of all possible knowledge

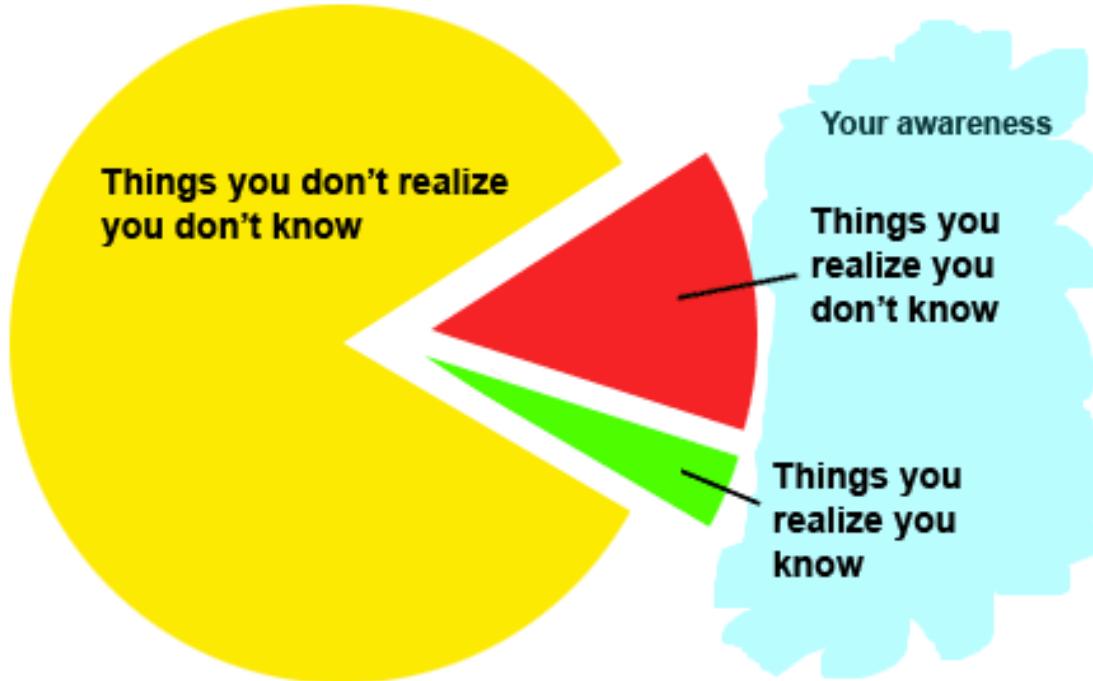


Figure 39. DKDK. (Tierney, 2007).

As I consider the 'DKDK' (don't know what you don't know) model (Figure 39), it reinforces the notion that the behaviourist model I have been working with in isolation for years has limited the sharing and collaboration between learners and facilitators. Human-centred design, a healthy dose of pragmatism and a blended pedagogical methodology are the fruits of this academic enquiry which in my opinion has laid a foundation to explore its outcomes within other contexts.

13 WHERE TO FROM HERE?

An unexpected opportunity to explore ways of knowing through innovative assessment has become available through the next academic paper I facilitate with the same cohort of Bachelor of Culinary Arts students. Before my Master's journey I would not have considered assessment outside of a quantifiable marking schedule either appropriate or necessary. The Master's in Professional Practice has allowed me to consider broadening the scope of my teaching, offering multiple platforms and ways to understand my learners as well as offer innovative and contemporary models of delivery. This, while considering more than one pedagogical methodology. This new opportunity offers new learning and teaching and looks at how learners can be afforded academic credit through both self-generated and externally generated evidence within their professional contexts. In my (new) view this innovation will allow our learners not only flexibility within their learning environment but will offer focus and ownership of their own learning.

As stated in my dedication at the start of this work, 'As I can attest too on completing this thesis, this is only the beginning'.

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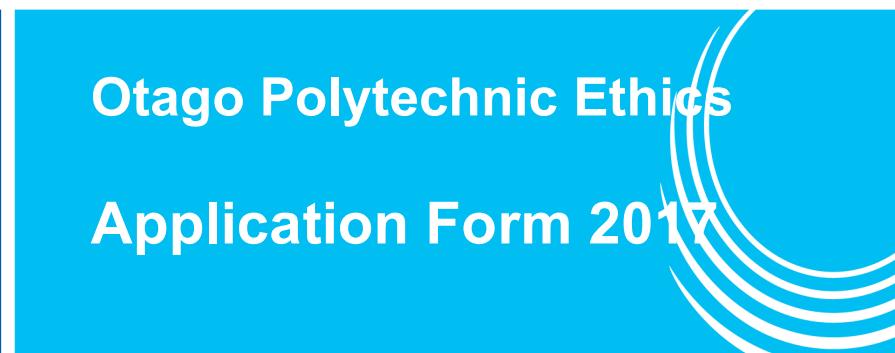
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APPENDIX ONE: ETHICS APPLICATION



Applications must be submitted to:

- Otago Polytechnic Research Ethics Committee:
EthicsAdmin@op.ac.nz (in a single Word or PDF document format)

For assistance with filling out this form you should in the first instance contact the Ethics Coordinator in your school or section. Further queries can be addressed to the Ethics Administrator at: ethicsadmin@op.ac.nz

The questions summarise detailed information in the **Otago Polytechnic Ethical Guidelines**. These must be read before completing the application.

If you are a staff member of, or researching patients in, the Southern District Health Board you must apply to and follow the Southern District Health Board's Ethics Committee's processes in the first instance.

- If your research is a replication study or extension of a study for which you already have ethical approval, please attach a copy of that application and its approval, and complete only those sections of this application that relate to things that are different from your previous application. All sections in the application must be answered.
- Your application must be written in language that will be understood by a layperson with no expert knowledge in your field.
- Explanations of such terms as potential harm, underage, vulnerable participants, anonymity and confidentiality are provided in the Otago Polytechnic Research Guidelines. Please use this format when preparing your application.
- The Information Sheet and Consent Form must be appended to this application.

Name

Steve Ellwood

Department

F.D.I.

Phone (office & mobile)

034703921 / 0273274241

Email

stephene@op.ac.nz

Postal Address

17 Edith Street, Fairfield, Dunedin.

Title of Project

'Developing pragmatic learning principles through embedding
human-centred design'

Commencement Date

February 2018

Completion Date

November 2018

Lay Summary of Project (300 words).

Please make this jargon-free so it can be understood by someone not from your discipline

Main Research Title or Question

To understand how useful or effective Human-centred Design can be as a teaching and learning tool.

Developing pragmatic learning principles through embedding human-centred design.

Overview

Throughout my Master's project, I wish to challenge my current professional practice, which for many years, has been informed by a very traditional Master/Apprentice pedagogy.

This industry entrenched and very traditional approach to culinary education sees the replication of a tradesman's (Chef's) skill and knowledge in systems and processes by their apprentices or students. This was, and still is, a very comfortable mode and pragmatic delivery for culinary education.

Aim

Since I began teaching on the Bachelor of Culinary Arts program I have observed this behaviourist model of education may limit a student's learning by only having available to them the skills or knowledge the instructor has or wishes to release. In challenging the traditional pedagogy, I intend to implement a human-centred design approach within a new and innovative culinary learning environment, a food truck.

Human-centred design focuses on an empathetic view of the end user and allows the learner to gain culinary skill and knowledge through a more creative and iterative process. Following this process will transform my practice through designing learning experiences from more than my own historical context, allowing for original, innovative and unique solutions to problems in culinary delivery systems and processes.

I will use this innovative food truck project to understand more around the pragmatic learning styles of our students. By utilizing human-centred design methods, the systems and processes needed for the food truck to function effectively will be designed, refined and tested from an end user perspective. This will transform my usual teaching practice from a behaviourist, curriculum-centred perspective to a constructivist view where human-centred design takes place to become learner-centred.

Research Question and objectives

What you hope to achieve by this research

By working through this research project, I hope to achieve a shift in my teaching practice. One that leads to a more contemporary educational delivery and one that is more in line with human-centred design to the benefit of our program, our learners and my own professional outcomes.

The questions I will be asking relate directly to my students learning about the audience for whom they are designing for. The outcome to these questions will require the consideration of tacit knowledge from the student, observational research, trend analysis, demographics and psychographic information to paint an empathetic view of the consumer as a first step.

As I cannot guess as to what questions the learners will pose I can only assume they would start with what they know of the demographics of the given area and work on perceived consumer requirements from there. This without actually requesting input from any specific group or community. In another project, I would normally have drawn from my own knowledge bank and put in place a starting list of consumer requirements. However this is not appropriate here... Going forward I will flip my thinking to use the empathetic, human-centred design approach. This, can be seen as the first step in the shift of my practice.

ETHICAL CONCERNs

In the following section you must explain clearly and succinctly how you have addressed these issues:

Research merit: Please include a brief statement (300 words max) of the purpose and benefits of your research and a record that this has been signed off by your department's research co-ordinator.

Delivering a contemporary and relevant culinary educational program is the cornerstone of my work on the bachelor of Culinary Arts degree.

To achieve this, I believe a shift is necessary in my teaching practice. Shifting from the behaviourist mode of Master/Apprentice, which for so long in culinary education has been the norm, to a constructivist approach using human-centred design will, transform my practice and allow learners to explore innovative and unique solutions to problems in culinary delivery systems and processes. The recording of

student/learner outputs will be the usual recording of information for both formative and summative feedback and assessment. This information is often personalised as feedback or grades or in a group environment where appropriate. Either mode is covered by the Otago Polytechnic academic framework as laid out in the course outlines for each of the taught papers.

The observation and implementation of my project will be split into two stages within semester one of 2018. The writing and sharing of my work will be delivered second semester of 2018.

Stage 1. I plan to observe and reflect on traditional systems and processes that allow the food truck project to function appropriately. In the first instance this learning has been informed by the informal conversations that have already taken place within the Food Design Institute to determine the needs and wants (scope) for a wide variety of culinary end users.

These conversations include culinary systems and process outcomes for high school visits, pop-up events, market days, fund raisers, social enterprise as well as curriculum embedded workshops. All these events afford opportunities to consider learner participation, teacher facilitation and audience empathy while contemplating a future human-centred design approach via an autoethnographic methodology. Through reflection this stage will give a baseline for system and service design while allowing me to consider my role and practice within my narrated autoethnographic method.

Stage 2. The next stage will see a specific cohort of student learners taking a human-centred design approach to determine both product and process requirements for their group or individual project. Definition of human-centred design and its integration into students learning will be delivered in timetabled classes to 22 year two Bachelor of Culinary Arts students. Theory and examples of human-centred design along with alternate models of learning will be discussed. This will revolve initially around tacit knowledge, extending out to research in contemporary practice by way of observation and conversation. The use of trend analysis, demographics and psychographics will be considered, creating reference points for our student learners to form an empathetic view of their customers' likes and requirements.

The purpose of the research project is to expand my teaching practice where human-centred design is used to facilitate learning and may offer an alternate pathway in the delivery of contemporary culinary arts education.

Treaty considerations: Otago Polytechnic researchers have an obligation to consult with the office of the Kaitohutohu as part of developing their research projects, in order to keep Kai Tahu informed about research at Otago Polytechnic and identify research of significance to Māori. See [Insite](#) for more information. Have you met this obligation?

Yes

I have had a conversation with the Kaitohutohu office (Ron Bull) on the 13/12/2017. This conversation reviled my thinking is on the right track with further conversation to be held as the project unfolds. Specifics were, sensitivities around food and work, designating the food truck as an extension of Manaaki and use of indigenous visuals to contextualise the food experience. Ron is happy to work with us on the above.

Cultural considerations: In what ways, if relevant, have the cultural concerns of groups been considered? Summarise the results of the conversations.

Cultural considerations of all groups are part of our everyday contact within our programs.

I cannot see any difference in how I would approach any cultural group while embedding this change in practice.

Personal culture perspective.

As a culinary arts Lecturer for the past 10 years I am aware there are cultural sensitivities and protocols surrounding food and its preparation.

This awareness will be bolstered through conversations with the Kaitohutohu office specifically, Ron Bull.

Vulnerable Participants: Explain clearly and succinctly how you have addressed questions of imbalances of power. These may include the use of vulnerable populations (See under-age, patients, clients, students, prisoners, or people who do not have the capacity to make informed decisions). Explain clearly how you have addressed the issue that such participants may, in different ways, not have the freedom of choice to participate fully.

As stated above, stage one will be observation and reflection on my own practice with student participation in stage two.

When students consider their outputs using the human-centred design method. I will employ, in stage two, the web based Tasteit platform.

This data gathering platform will be set as completely anonymous and no learner will be identified by their participation. Further, to combat any identification of learners from the subjective comments submitted, I will request an admin staff member compile the results of the qualitative data and delete any identifying comment. This will inform my practice and indicate success or otherwise for my shift to this mode of teaching and learning.

I will ask the students to use the Tasteit app as part of their reflection on practice.

The data I gather from tasteit will influence my practice and tell me how the learners connect with human-centred design.

I am unsure of the specific questions I would like the learners to answer via the tasteit platform until I have observed their interactions with the human-centred design tools and methods.

An example of the style of questions I would be asking via tasteit are listed below and would be indicative of the type of questions I will be asking. There would be a total of seven questions within each event where Tasteit allows for a scaled response from 0-10 using a electronic linear sliding scale. These responses are then averaged and represented through spider graphs. Qualitative comment can also be submitted on the same web based page. These responses will also be collated and repeating themes considered. Each submission is anonymous with no recording of who entered the data.

- Did you connect well with the human-centred design framework within this paper?
- Do you consider the human-centred design approach to learning and teaching contributes to successful outcomes?
- Did you observe the human-centred design approach improved the design of a product or process?

These types of feedback questions will allow for both quantitative data to be collected and subjective qualitative feedback to be considered.

This resulting data will be more a reflection on the mechanics and set-up of the human-centred design approach and will be used as an iterative tool for improving my teaching practice.

The Tasteit platform may be viewed at anytime via this link,

www.tasteit.op.ac.nz



All participants will be made fully aware of the research project in the overview of the selected paper/s and, given the choice whether to participate or not.

Should you wish to withdraw altogether after signing the consent form please feel free to contact the FDI administrator, Helen.White@op.ac.nz.

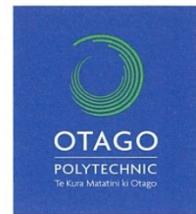
The use of personal information: Explain whether the data collected will be anonymised, remain confidential, or be used in an identifiable fashion. Explain how it will be stored, and disposed of at the completion of the research.

As stated above no individuals personal student information will be accessed or stored. Only anonymous data on the connection, understanding and relevance of the use of the human-centred design method and outcome will be recorded. The analysed data will only, be used to influence my delivery and teaching practice and influence my autoethnographic research outcome.

Relations with other Ethical Committees and Institutions: Is approval also required from other bodies such as District Health Boards? Are clients approached through other organisations?

N/A

APPENDIX TWO: ETHICS APPROVAL LETTER



6 March 2018

Steve Ellwood
17 Edith Street
Fairfield
Dunedin 9018

Dear Steve

Re: Application for Ethics Consent

Reference Number: 761

Application Title: *'Developing pragmatic learning principles through embedding human centred design'*

The review panel has considered your responses to questions and issues raised for this application. We are pleased to inform you that we are satisfied and confirm ethical approval for the project.

We wish you well with your work and remind you that at the conclusion of your research to send a brief report with findings and/or conclusions to the Ethics Committee.

All correspondence regarding this application should include the reference number assigned to it.

Regards

A handwritten signature in black ink that reads "Liz Ditzel".

Liz Ditzel (PhD)
Co-Chair, Ethics Committee
Otago Polytechnic

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APPENDIX THREE: PARTICIPANT INFORMATION FORM

Main Research Title or Question

To understand how useful or effective Human-centred Design can be as a teaching and learning tool.

Developing pragmatic learning principles through embedding human-centred design.

General Introduction

Within traditional models of education a student's learning may be limited by only having available to them the skills or knowledge the instructor has or wishes to release. In challenging this traditional teaching methodology, this project intends to implement a human-centred design approach within a new and innovative culinary learning environment, a food truck.

This human-centred design approach focuses on an empathetic view of the end user and allows the learner to gain culinary skill and knowledge through a more creative and iterative process.

Facilitating this research project will help me transform my teaching practice from a curriculum-centred perspective to a view where human-centred design takes place to become learner-centred.

What is the aim of the project?

The aim is to help shift my teaching practice to a more contemporary educational delivery and one that is more in line with human-centred design to the benefit of our program, our learners and facilitators professional outcomes.

How will potential participants be identified and accessed?

Participants will be asked to participate in this study as they are enrolled in a specific paper where the food truck model will be utilized as part of the Bachelor of Culinary Arts program at Otago Polytechnic.

All learners enrolled in this specific paper will be approached to participate in the study but their participation is voluntary. Students will be completely informed of their participation at the start of their project where they will be advised they need not submit through the Tasteit platform should they not wish too.

What types of participants are being sought?

Culinary Arts learners at second and third years of degree study. The second year cohort, 2018, will be asked to participate in this study with the third year cohort for 2018 being observed in the normal teaching and learning environment with no data being recorded.

What will my participation involve?

Participation in this project does not consist of any extra or out of curriculum study, or recording of the same. Only the lecturers opinion on the worth of the human-centred design framework will be recorded, and this, only for the purposes of further curriculum design.

Within the delivery of the selected papers learners will consider their outputs using the human-centred design framework. I will ask the students to use the tasteit app as part of their reflection on practice. The data I gather from tasteit will influence my practice and tell me how the learners connect with human-centred design. This data gathering platform will be set as completely anonymous and no learner will be identified by their participation.

This will inform my practice and indicate success or otherwise for my shift to this mode of teaching and learning.

An example of the style of questions I would be asking via tasteit are listed below and would be indicative of the type of questions I will be asking. There would be a total of seven questions within each event where Tastelt allows for a scaled response from 0-10 using a electronic linear sliding scale. These responses are then averaged and represented through spider graphs. Qualitative comment can also be submitted on the same web based page. These responses will also be collated and repeating themes considered. Each submission is anonymous with no recording of who entered the data.

The resulting data will be more a reflection on the mechanics and set-up of the human-centred design approach and will be used as an iterative tool for improving my teaching practice.

The Tastelt platform may be viewed at anytime via this link, www.tasteit.op.ac.nz

All participants will be made fully aware of the research project in the overview of the selected paper/s and, given the choice whether to participate or not. Participation will only be recorded via the Tastelt platform which will be completely voluntary and anonymous.

How will confidentiality and/or anonymity be protected?

No learner name or identifying student number will be copied or held as part of this research.

What data or information will be collected and how will it be used?

Results of this project may be published but any data included will in no way be linked to any specific participant without prior consent. You may request a copy of the results of the project and it will be available at: stephene@op.ac.nz

Data Storage

Informed consent forms and messages will be held and accessed by an FDI administrator, electronically in a secure server.

The data collected will be securely stored in such a way that only the researcher and administrator will have access to it. At the end of the project any personal information will be destroyed for any raw data on which the results are based. No individual's personal information will be accessed or stored. Only anonymous data on the connection, understanding and relevance of the use of the human-centred design method and outcome will be recorded. The analysed data will only, be used to influence the researcher's delivery and teaching practice and influence the autoethnographic research outcome.

Can participants change their minds and withdraw from the project?

You can decline to participate without any disadvantage to yourself of any kind. If you choose to participate, you may withdraw from the project at any time, without giving reasons for your withdrawal. If you choose to withdraw after feedback has been submitted, these submissions can not be recovered as they are anonymous and can not be tracked back to individual responses. Should you wish to withdraw altogether after signing the consent form please feel free to contact the FDI administrator, Helen.White@op.ac.nz.

What if participants have any questions?

If you have any questions about the project, either now or in the future, please feel free to contact either my Academic Mentor - Jo Kirkwood (jo.kirkwood@op.ac.nz) or myself, at stephene@op.ac.nz. Any additional information given or conditions agreed to will be noted on the consent form.

APPENDIX FOUR: PARTICIPANT CONSENT FORM

(All participant Consent forms are signed and filed with the Food Design institute)

Project title

To understand how useful or effective Human-centred Design can be as a teaching and learning tool.

Developing pragmatic learning principles through embedding human-centred design.

I have read the information sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

- My participation in the project is entirely voluntary.
- I am free to withdraw without giving reasons and without any disadvantage.
- Any data will be *destroyed* at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for five years after which it will be *destroyed*. If it is to be kept longer than five years my permission will be sought. Please consider this carefully as sometimes digital material cannot be entirely destroyed.
- The resulting information will be used for curriculum design into the future.

I agree to take part in this project under the conditions set out in the Information Sheet.

.....
(signature of participant)

.....
(date)

.....
(signature of researcher)

This project has been reviewed and approved by the Otago Polytechnic Research Ethics Committee.

APPENDIX FIVE: LEARNING AGREEMENT



Master of Professional Practice

Course 2: Advanced Practitioner Enquiry Learning Agreement

Learning Agreement

This Learning Agreement is between a Master of Professional Practice learner, Otago Polytechnic, and the learner's workplace. The purpose of the Learning Agreement is to help ensure work-based projects are completed in line with student learning goals.

Name of learner:

Stephen Ellwood.

Facilitator:

Trish Franklin.

Academic Mentor:

Jo Kirkwood.

Title of project:

"Developing pragmatic learning principles through embedding human-centred design"

Learner's Aspirational Professional Practice/Identity/Framework Statement:

Through this project I intend to challenge my current professional practice, which for many years has been informed by a very traditional Master/Apprentice pedagogy. This traditional approach to culinary education sees the replication through observation and repetition of a tradesman's (Chef's) skill and knowledge in systems and processes by their students. This was (and still is in some respects) for me, a very comfortable mode and pragmatic delivery in culinary education.

I have observed this behaviourist model of education may limit a student's learning by only having available to them the skills or knowledge the instructor has or wishes to

release. In challenging the traditional pedagogy, I intend to implement a human-centred design approach within a new and innovative culinary learning environment, a food truck. The human-centred design methodology focuses on an empathetic view of the end user and allows the learner to gain culinary skill and knowledge through a more creative and iterative process. Following this process will transform my practice through designing learning experiences from more than my own historical context, allowing for original, innovative and unique solutions to problems in culinary delivery systems and processes.

MPP goal:

The overall goal of your MPP

To develop personal and professional skills in using a pragmatic, human centred design methodology to new learning. To use these skills to facilitate the learning of systems and processes within the professional culinary arts environment.

Context and background to my project

I am one of the Culinary Arts lecturers at the Food Design Institute at Otago Polytechnic. I have taught on both certificate and degree programs within Culinary Arts for the past ten years. Before entering the education field, I had been entrenched in the hospitality sector for twenty years.

Within my Master's project I wish to focus on developing pragmatic learning principles or outcomes using human-centred design as a methodology. The vehicle I will use to develop these principles comes from our latest Food Design Institute project, the food truck.

This project involves the commissioning, designing and project leadership to build a food truck/trailer that will be used to deliver educationally based systems, processes and outcomes for our Culinary Arts Learners.

This project originally came about when the Engineering Department at Otago Polytechnic put out a call for ideas for projects for their level three engineering programs. At the Food Design Institute we had talked about the possibility of a "Food trailer" for some time and this callout seemed the perfect opportunity to open the discussion. This led to further collaborative conversations with several other internal departments including Electrical engineering, Automotive engineering, Design and Marketing. These conversations culminated in a collaborative effort to deliver a fully resolved and compliant mobile food delivery system having learning benefits and outcomes for all the departments involved. The project is well underway at the time of writing this report and will be completely built, compliant and ready to use by mid-December 2017.

The food truck genre is at the forefront of today's contemporary culinary practice and has become common-place within our towns and cities. Zachary Hawk states in his Master's thesis, "Gourmet food trucks have emerged as increasingly popular dining alternatives for consumers in today's urban landscape (Hawk, 2013, p. 3). As an educator in all aspects of culinary delivery this project will span new learning in menu

development, marketing, service design and food production and will add another layer of diverse learning opportunities for my students. As stated by the CEO of Otago Polytechnic when asked for his support for the project, "This is a great initiative, and exactly the kind of experiential learning initiative we need"(Ker, 2017).

I will use this innovative food truck project to understand more around the pragmatic learning styles of our students. By utilizing human-centred design methods, the systems and

processes needed for the food truck to function effectively will be designed, refined and tested from an end-user perspective. This will transform my usual teaching practice from a behaviourist, curriculum-centred perspective to a constructivist view where human-centred design takes place to become learner-centred.

Human-centred Design in my context.

Krippendorff's view on human-centred design and research contends that behaviour and understanding go hand in glove. He states "Humans do not respond to the physical qualities of things but to what they mean to them"(Krippendorff, 2004, p. 48) Krippendorff argues when designing any process, system or activity we must identify what the meaning of the process, system or activity would offer the user. This project gives me the opportunity to shift my teaching practice from merely demonstrating a culinary process, service or product (the physical quality) to consider how the learner also believes the end user of a process, service or product understands or interacts with their proposed outcome.

Human-centred Design for business.

When considering human-centred design as a strategy for business it differs from the more common push/pull models. The *push* model starts with developing an innovative product or service where the product is pushed onto the market. The *pull* model stems from an identified need to resolve an issue or gap in the market. Human-centred design offers a business strategy where new end user meanings are considered while being sensitive of the creativity, ideation and co-creation from within a group. Embracing human-centred design is how I see my project unfolding throughout my Master's, to the benefit of my own knowledge and that of my learners.

Human-centred Design throughout my project.

I will discuss system and process design from the instructional design perspective and how instructional design can be viewed as human-centred. Shifting from a behaviourist paradigm into a constructivist context. I will map the distinction between "Experiential learning" which may be viewed as an outwardly constructed learner experience drawing from pragmatic observation and reflection, "Many situations of experiential learning involve applications of reflective learning"(Moon, 2005, p. 130) and "Learning from experience" where our students learn through their lived and personal socially constructed experience.

And finally, I will investigate reflective practice through human-centred design to explore how knowledge is transferred and consolidated through new learning.

My learning outcomes

To gain personal growth and knowledge by implementing new and current learning through pragmatic human-centred design.

To track, record and present my personal new learning through the implementation of this project.

To track, record and present how learners transfer new knowledge through a human-centred design approach to learning.

Main audience for my project

The project will have relevance in today's contemporary culinary practice for: Educators from within the formal culinary education sector, i.e. Polytechnic and private tertiary providers. This project may offer a pathway for educators to consider new approaches to learning and teaching.

The wider hospitality industry. Where consideration for the end user of a product or service becomes the focus (through the human-centred design process) from which the desired outcomes are created. In my projects context the wider hospitality industry may include; Restaurants, Bars, Mobile food outlets, Hotels and other catering establishments.

Another audience is students. Within any culinary or service context student learners are offered a new way of approaching a problem. By this I mean, as we navigate our way through the ranks of the hierarchical culinary system we become both learners through new experience and teachers from experience. Both creating and passing on new knowledge.

The pragmatic approach of human-centred design prioritizes the needs of the end user rather than the more common (within the culinary world) egocentric focus of the practitioner. I would consider my contribution through this project as being able to share a pathway for others to reflect on a human-centred design approach to learning.

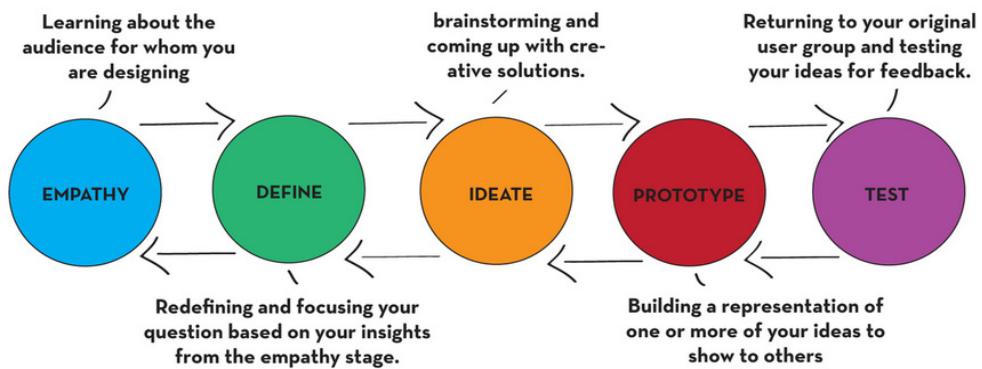
Project Methodology

My project will employ an autoethnographic methodology. Translating an understanding of myself within the processes and interactions of my project while considering change within my teaching practice. This will be supported by a personal narrative deriving from the use of human-centred design within culinary arts education.

Gurvitch, Carson and Beale contend that autoethnographies typically "tend to communicate personal experiences and dialogues regarding oneself or one's interaction

with others"(Gurvitch, Carson, & Beale, 2008, p. 246) It is these personal interactions between the end users, learners and facilitators that will allow an autoethnographic methodology to use self-exploration and self-analysis within human-centred design to facilitate new learning. One of the main tenants of Human-centred design considers an empathetic view of the end user of any product or service. As I have no idea, who or what product or service my projects participants will choose to explore, the implementation of Autoethnography as a reflective research methodology seems appropriate.

I plan to use a pragmatic, (sensible, realistic and practical) approach to facilitate the learning of systems and processes while using 'Human centred design' that puts the end user, student, educator or client at the centre of the activity. To achieve my desired outcome, I will follow the human centred design process depicted below.



(Aid, 2015, p. 1)

The observation and implementation of my project will be split into two stages within semester one of 2018. The writing and sharing of my work will be delivered second semester of 2018.

Stage 1. I plan to reflect on my prior observations around traditional systems and processes that allow the food truck project to function appropriately. In the first instance this learning has been informed by the informal conversations that have already taken place within the Food Design Institute to determine the needs and wants (scope) for a wide variety of culinary end users.

These conversations include culinary systems and process outcomes for high school visits, pop-up events, market days, fund raisers, social enterprise as well as curriculum embedded workshops. All these events afford opportunities to consider learner participation, teacher facilitation and audience empathy while contemplating a future human-centred design approach via an autoethnographic methodology. Through reflection this stage will give a baseline for system and service design while allowing me to consider my role and practice within my narrated autoethnographic method.

Stage 2. The next stage will see a specific cohort of student learners taking a human-centred design approach to determine both product and process requirements for their group or individual project. This will revolve initially around tacit knowledge,

extending out to research in contemporary practice by way of observation and conversation. The use of trend analysis, demographics and psychographics will be considered, creating reference points for our student learners to form an empathetic view of their customers' likes and requirements. By the learner putting themselves in the shoes of the client or end user will distinguish and define their needs through the use of a written reflection.

Defining system and service issues or problems we will consider the pragmatic, real world requirements of consumers while maintaining a human-centred design approach. This may differ from the usual culinary design approach which can be curriculum driven or limited by historical norms.

Through the reflective autoethnographic process I will consider how the use of human-centred design impacts on my learning and teaching. Using these reflections, I intend building and developing further learning systems and processes to meet the demands of the evolving food market.

Ethical process

Category A ethical approval will be required for stage two. Completed ethics form has been submitted to the committee.

Māori Consultation

- Will the research involve Māori?

The research may involve the creation or may be influenced by indigenous food based offerings, food production methods or food experiences. The outcome is unknown as the project outcomes depend on the student research outcome. We are fortunate at Food Design to have on staff Adrian Woodhouse, our academic leader. We are able to draw from his basic knowledge on Maori protocol around food and food experiences.

- Is the research being conducted by Māori?

As previously stated, the research in part two of my ethics application may include Maori students wanting to pursue indigenous food offerings. I would envisage consultation being on going through the project to align with any cultural sensitivities. My cultural background is solely European and obviously do not identify myself as having any Maori family connection.

- Are the results likely to be of specific interest or relevance to Māori?

Cultural and dietary considerations are relevant around food at all times.

For educators in particular, student feedback and reflection on how Maori connect with a human-centred design approach to learning verses the more traditional master/apprentice framework.

I will follow up on any concerns through conversation with the Kaitohutohu office.

- Could the research potentially benefit Māori?

Very much so. I would consider outcomes for Maori in, Business creation, monitory gain, learning outcomes, learner confidence and work readiness. The research could also be considered as cementing cultural connections for learners and facilitators through their project work.

Literature Summary:

Introduction

To many, learning a trade, profession or attaining any skill set requires the acquisition of knowledge traditionally passed down from a Master to their apprentice. This is especially true within the culinary world where in the Late 19th century Auguste Escoffier established a hierarchical brigade system that recognised a customary training pathway from novice to journeyman Chef. This framework still exists in the larger or more traditional kitchens today. The following literature influences change in my own pedagogical approach to learning and teaching within the culinary arts. Moving from a behaviourist model of “follow the leader” to having a human-centred approach for the facilitation of learning.

The Field Guide to Human-Centred Design, (Aid, 2015, p. 1)

The Field Guide to Human-Centred Design has given me the foundations and first steps into creating a framework and methodology for my project. This resource will help me develop steps to observe and experience both the learner and end user perceptions and knowledge gained within my project. By tracking these observations and experiences we will be able to iterate outcome and bolster learning and teaching. Navigating the design principles for HCD highlights empathy as a starting point where, learning how to think like your user and putting their needs first, plays a significant role in our behaviours and decision making. Moving on through the HCD process of definition, ideation, prototyping and testing culminates in developing balanced systems and processes within the participants learning.

Pragmatic design: how does design thinking fit into the real world? (IDEO, 2015)

This article highlights my pragmatic approach to most learning and bolsters my view that human-centred design is a pragmatic approach.

Human-centred design is by definition pragmatic through its iterative, prototype and testing phases. Using this as a tenant to facilitate pragmatic human-centred design I will develop systems and processes within project based education that will assist a team rather than lead it, while keeping its journey through design as stable as possible.

This article has led me to consider pragmatic design within education. The notion that you can only see the effects of something when you put that something into the real world, so it follows that it's theory will follow its practice, instead of the educational or institutional norm of practice following theory.

IDEO's 6 Step Human-Centred Design Process: How to Make Things People Want.
(IDEO, 2015)

In this article David Kelley, the founder of IDEO states, "We're kind of experts on the process of how you design stuff." You could hire them to design a vending machine, an app, a mattress, or a space shuttle, and it would all be the same to them. The article highlights how observation of behaviours and understanding of the user experience will lead to the end-users telling them what to focus on developing. These foundational steps are followed by a process of iteration, feedback and implementation which I intend to facilitate into building processes and systems within my project. The authors last sentence from this article resonates in my educational context, he states, "To build a truly innovative and useful product, you don't need to start with the brightest idea or the fanciest technology. You just need to start by understanding people"(IDEO, 2015)

Behaviourism, Cognitivism, Constructivism: Comparing Critical Features from an Instructional Design Perspective
(Van der Woert, 2016)

A very informative journal article that defined Behaviourist, Cognitive and Constructivist learning theories and discussed how they could be used in the design and delivery within structured education. I would discuss how all three of these learning theories are at some point incorporated within experiential learning and reflection. The goal of instruction for the behaviourist is to elicit the desired response from the learner who is presented with target stimuli (Lanoue, 2015).

Cognitive learning is concerned not so much with what they do as with what they know and how they know it.(Lanoue, 2015) While constructivism states that knowledge is a function of how the individual creates meaning from his or her own experiences. (Ertmer & Newby, 1993) Considering knowledge transfer again, the main learning from this article, in my culinary context, has been the comparison of constructivist theory to human-centred design where, "Knowledge transfer in constructivism can be facilitated by involvement in authentic tasks anchored in meaningful contexts (Ertmer & Newby, 1993, p. 17)

This article resonated with my personal experience through the behaviourist approach to learning which may be seen as being rooted in the traditional master/apprentice model. This approach was taken through my own trade training where the learner was limited by the teachers scope or knowledge on a subject.

Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching
(Jonassen, 1991)

Looking at an opposing view on human-centred design was useful in cementing my view that a HCD will put my end user at the centre of any solution. The article states, "The advantage of guidance begins to recede only when learners have a sufficiently high prior knowledge to provide "internal" guidance."(Kirschner, Sweller, & Clark, 2010, p. 75) This article provided an alternative argument to constructivist education where strong instructional guidance for the novice to intermediate learners is advocated. It takes a behaviourist approach which draws from empirical data. This may be based more on how the data is analysed and reported but will also require more research and understanding by myself to fully take advantage of its conclusions.

How People Learn: Active Vs. Passive Learning

(Ertmer & Newby, 1993)

Considering human-centred design as active learning.

By nature, this project will demand an active participation from students, lecturers and participants. In the initial stages of experience learning "There's nothing wrong with having course media like lectures and videos that discuss concepts within a module. Just don't stop there!"(Jonassen, 1991). The Blog article highlights divergent thinking or big-picture thinking, where students develop many different creative ideas or solutions to a topic. I will stress divergent over convergent thinking where there is only one right answer or solution. I consider this an essential part of my thinking and implementation into this project.

Kolb vs Gibbs

(Kirschner et al., 2010)

This digital presentation compares and discusses Kolb and Gibb's theories on Experiential Learning. "Why did things happen? What happened? Where different peoples experience the same? What conclusion can you make about the general themes of your experience?" (Kirschner et al., 2010). It offers a snapshot of their thinking and practice through implementation and is something I would wish to share with my learners, as it would show the transparent direction I wish to take their learning.

Moon's Handbook of Reflective and Experiential Learning

(Hahn, 2015)

I found this book gave me new "food for thought" as I have been expanding my academic vocabulary, the author notes; "missing vocabulary leads to an inability to articulate the learning" (Moon, 2005, p.13). She made another point that applies to my context at the moment, "The process of learning is not about the accumulation of material but about the process of changing conceptions" (Moon, 2005, p.17).

Reflecting on my own experience as a chef I found Winter's definition (cited in Moon, 2005) of 'Having experience' vs. 'Learning from experience' interesting where he compares the two. Paraphrasing his description, 'A Chef lecturer was talking about having ten years' experience in education, he asks, has the lecturer had ten years' experience or one year repeated ten times' This leads me to ask the very same question of myself, am I repeating my repertoire of experiences again and again as this is how I

see my truth, where a fresh look at new experience in contemporary practice may benefit both my learners and myself.

Doing Work Based Research

(Hanna, 2015)

This work highlights for me, new topics to consider in moving forward with my project. Reading on Insider bias, awareness of impartiality and vested interests has given me a new outlook on preparing myself for issues as an inside researcher. Although, if the value of the project is obvious and transparent from the start then, as stated by Costley, Elliott and Gibbs "The criticisms and general critique of insider research is balanced against the value of the work based project" then negative or unconstructive critique and feedback can be minimised.(Hanna, 2015) Constructing a methodological framework while feeling comfortable working with that method is also highlighted. This work has given me the opportunity to consider the wide range of possible methodologies I may wish to employ. The work has also led me to look at building my methodological framework through considering the project 'topic and aim' alongside my own ontological and epistemological perspective or how I perceive the project in reality and what knowledge is salient and important to me. Reading the section on 'Developing a Methodology has defined various possible methods to use within my project with a combination of Ethnographic and Action research being favoured at this stage. The section on reflection on professional practice will be referenced throughout my project as this section of the work will help me consider the history, environment and culture of the workplace as I navigate the ethics and it's politics as an inside researcher. (Moon, 2005)

Experiential learning and its facilitation

(Winter, 1989)

Reflection on experiential learning, I would consider plays a major part in my projects methodology, human-centred design where, my learners gain new insights through the doing in experience adds to their knowledge base. Nurse Education Today states, "An analysis of the concept of experiential learning indicates that it is the product of reflection upon experience, with the nature of the reflection and the quality of the experience, being significant to the overall learning"(Fowler, 2007, p. 475) This is where the new learning for me through this research has occurred. Where previously I have concentrated on the *doing* in experiential learning I will now put as much credence into the reflection to ensure knowledge transfer.(Costley, Elliott, & Gibbs, 2010)

Another definition of experiential learning is offered by McGill and Warner Weis in Fowler (2007) and states, "Experiential learning is the process whereby people engage in the direct encounter, then purposefully reflect upon, validate, transform, give personal meaning to and seek to integrate their different ways of knowing. This highlights to me that without the transfer of knowledge from experience into the learner's reality, learning does not take place. Within my project, I will track and record both passive and active knowledge transfer and question the outcome of both.

Theory and Practice of Experiential Education

(Costley et al., 2010)

Similarly, to those discussed above, this article emphasises experiential learning and reflective practice which I consider vital parts of the human-centred design approach to learning and system design. The work is more focused on the philosophical aspects of experiential learning but starts off with a notable paragraph in the introduction by John Dewey. "An ounce of experience is better than a ton of theory simply because it is only in experience that theory has vital and verifiable significance, (Costley et al., 2010). Laura Joplin in the same work defines experiential education as "Experience alone is insufficient to be called experiential education, it is the reflection process that turns the experience into experiential education. (Fowler, 2007) This has helped to define the methodology for my project, pragmatic human-centred design

I have categorized my literature summary into three parts. The first three examples consider pragmatic, human centred design and give me a framework to inform the chosen context of my project. The next two articles give an overview and explanation of behaviourist, cognitive and constructivist thinking and how these ways of doing and thinking compare to the human centred design process. The third category considers wider research with an emphasis on experiential learning and reflection. These topics relate directly and will inform my project work on human-centred design and my research methodology of autoethnography.

Sustainable Practice

Sustainability in the workplace for me relies on structure, systems and processes that create flow and order to help meet timelines, KPI's and deadlines. Engaging in a methodology that helps create a pathway or structure while at the same time not stifling the possible creative solutions to problems may be defined as using human centred design to create a sustainable platform to initiate future system and process. Sustainable practice in time management may be achieved by having a set methodology to consider new learning on practice.

Key Milestones:

Include key milestones and provisional dates for the completion of your project.

Steve Ellwood MPP 2017/18

Project Lead: Steve Ellwood

	Task Name	Short Code	Start	Finish	Duration	Percent Complete
1	Learning Agreement, Course 2, 2017	LA	Fri 06/Oct/17	Fri 08/Dec/17	46	0%
2	Ethics Application 2017	ETH	Fri 06/Oct/17	Fri 17/Nov/17	31	0%
3	Kaitohutuhu Consultation	KC	Fri 06/Oct/17	Fri 24/Nov/17	36	0%
4	Course 3, Negotiated Work-Based Project	NWBP	Tue 03/Oct/17	Mon 01/Oct/18	260	0%
5	Gather Data	GD	Thu 01/Feb/18	Mon 30/Apr/18	63	0%
6	Analyse Data	AD	Mon 02/Apr/18	Mon 11/Jun/18	51	0%
7	Write up project	W-U	Mon 18/Jun/18	Mon 24/Sep/18	71	0%
8	Present Project Assessment	PR	Mon 01/Oct/18	Tue 02/Oct/18	2	0%

Reflection:

My reflective process involves using my learning workbook which I have had from the start of my MPP. This includes formatting full-stop pages where my learnings to date may be summarised and critiqued. A report on my reflective journey will be submitted as part of my outcome and will be a summary of key aspects taken from my workbook. My reflections so far are written below in the reflective critical commentary.

Reflective Critical Commentary

The conversation started on my Master of Professional Practice in May 2016 with our Academic Leader, Adrian Woodhouse. Since enrolling in the MPP I have completed and passed my record of learning (Section one) as of 29.6.2017. While only at the start of the second section of the Master of Professional Practice, I see already the MPP is tuned to not only the individual's context, but is relevant to the learner's interests and project outcomes.

September 2016; First contact with Capable NZ regarding MPP.

October 2016; MPP interview with Glenys Forsyth.

February 2017; Trish Franklin nominated facilitator.

March 2017; MPP enrolment complete, course one start and Record of Learning.

July 2017; Jo Kirkwood nominated my Academic Mentor.

The first section or paper within my MPP was 'My review of learning' and was a piece of writing I have never attempted before... A reflection not only on my working life but my life from an outside perspective. This process took me back to my childhood, adolescence and early adulthood and gave me a new way of seeing how I have been influenced and shaped into the person I am today, not always in the light I perceived myself.

I started this process as I do with every job, with a 'Mise en Place' (preparation prior to service Fr) list. I write down the outcome, in this case, my record of learning, and start to write down the prep (recipes) I need to complete the given tasks. Early years and influences,

Shaping of beliefs, values, culture and religion and influences of change. I try to bundle these topics into some cohesive written piece but find out rather quickly the recipe I need to follow relies on a timeline with a more holistic view of milestone moments that are important to me and have ultimately influenced the way I operate.

My Review of Learning has laid-out an honest and bare-boned foundation of who I am, where I came from and who I think I am today. The work has made me reflect on memories, some fond, some proud and some cringe worthy to the point of embarrassment. But I'm guessing everyone can put themselves in that position. I have tried to outline my transition from a very young but determined manual worker to a skilled trade apprentice through to highlighting a few defining or eureka moments that caused a shift onto pathways leading eventually into hospitality, cookery and education.

I have read over my Review of Learning again and again and have never been entirely happy with my question or context for my Master's project going forward...until... On page three of my record of learning, within my first reflective piece there it is. "I would regard myself as a practical problem solver with a specialised interest in process and systems for project work"

I believe, till now, I have been trying to shoehorn or fashion various concepts into a question I could research and find answers too, in effect *back-filling*. The first question I considered read, 'Embedding Problem based Learning within Project based opportunities for Culinary Arts Education' then shifted to 'Exploring Experiential Learning in Culinary Arts Education' both these questions have never defined *what* I plan to achieve, they merely give an umbrella statement or context to my real interest, and where I feel I can make a contribution to student outcome through 'Developing pragmatic learning principles through embedding human-centred design'. This descriptor funnels down my thinking to a specific context or question and will allow more focus within my work moving forward.

As a very practical person I sometimes struggle with conceptual processes within my field of food design and feel more comfortable developing systems and processes that keep the end user in mind while facilitating others creative or conceptual outcome. My strength or contribution often lives in the background of a project where the mundane often lies. Based on industry feedback our stakeholders have reported system awareness and the ability to follow process is often just, or even more important than technical ability in cookery or service ensuring safe and satisfactory outcomes(McArthur, 2017).

Some of these systems and processes include: The collation of overlaid or individual time lines within a project. The costing structure including the forecasting of profit and loss within a project. Developing pathways for collaborative effort in planning and logistics through any given delivery. Collating tools and materials to enable process design. Designing and implementing collaborative information platforms for reporting and updating project progress. Designing feedback mechanisms to enable iteration and progression within the project. These system and control processes are vital within any project to enable a satisfactory result for clients. Through my experience, I consider having a scaffold or foundation for systems and processes within a project, allows

learners time to think creatively and try new approaches in becoming problem solvers. Pragmatic learning in human-centred design provides a structure to consider the above.

There have been several moments of frustration through my record of learning and into section two so far. Upon reflection, I see now these moments were brought about by my trying to look and record too broadly and not follow any thread through my work. I think this process was learning in itself and had to occur to allow me to eventually focus on my chosen subject. Professor Richard Mitchell summed up the Master's process to me, "you must know a lot about a little, not little about a lot"(personal communication, Mitchell, 2017) This tells me I have read widely on several topics that interest me and now I am funnelling back to a question I can focus on.

So... my plan... stay focused, stay within the framework while following the thread.

Main outputs from my study

A review on the use of pragmatic, human-centred design for developing systems and processes within project based learning.de
Produce a review on contemporary practice in culinary education both from a national and international standpoint.
To develop a self-funding model of culinary course delivery based on this project.
A report on my reflective journey (summary from my learning journal)
The oral presentation

Employer /Professional Representative:

Letter of support is attached/or on its way.

TBA

Signed by Learner:



Signed by Employer:

Signed by Capable NZ review panel:

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Assignment 1

Review of Learning

Steve Ellwood
Reflections on practice



<http://maxpixel.freegreatpicture.com>

INTRODUCTION

Finding a starting point for my writing has always been a challenge, especially when I am not entirely comfortable with the subject matter, in this case... myself.

If I am asked to write or articulate a piece on “work based practices” i.e. practical craft skills or indeed the theory behind their use, I can drone on for pages. Highlighting the benefit of honed knife skills, benefiting not only the aesthetic, but also the evenness of flavour through staggered sauté. The detailed three-day process of gelatinization through reduction of a sauce *demi-glaze* or demonstrating the patience, respect and care required when butchering any formally living protein. This sharing of knowledge or tacit craft gives me a huge amount of satisfaction where I can see new learning has sparked interest within my learners.

Sharing thoughts and feelings on family or myself I find more difficult. I suppose the reasons are generational. I could not imagine my grandparents or parents giving any thought to the “why” we behave or interact as we do, the fact would be for them *that is the way it has always been done*. I reflect on how I have viewed the world for the first forty five years of my life and can see a mirror image of what has gone before played out in my experience. So what has changed in the last five or six years that has allowed my thinking to expand out of my “Cave”? (A reference to Plato’s “Allegory of the Cave”) The answer, “My new learning” through my own reflections by way of many Eureka moments which I will expand on further.

Before laying out my early years, working philosophy, professional practice, future aspirations, beliefs or values I would paint a short picture of who I think I am today. Unpacking this progression will be an interesting journey, having never really done this before.

SELF REFLECTION, TODAY

I would regard myself as a practical problem solver with a specialised interest in process and systems for project work. How does that boil down for me? I have always considered myself a worker not an academic. I do believe however that through my work on the Bachelor of Culinary Arts program the practical and the academic have started to converge as I am dragged kicking and screaming from my “Cave” into the light... Enough analogy.

Where to start? What does the audience want and need to hear? Can I articulate my thoughts honestly at the level of critical thought required? As I work I constantly question myself in regards to the substance and relevance of my research and writing.

FROM THE BEGINNING

Born and bred in Dunedin from proud, conservative Catholic, English and Irish stock on both sides of my family this influence would completely dominate my behaviour and upbringing throughout my formative years.

As far back as I can remember the family's ethos of manual hard work, hierarchical respect and religion (right or wrong) was drummed into us all with very little regard to individual opinion or consideration of new ideas. Not to say we were unhappy in any way, on the contrary the freedoms we enjoyed growing up I find sadly lacking for todays generation of youngsters. From riding broken down motorcycles, racing ball bearing trollies, climbing almost anything that stood vertically, and falling off, never hearing anything of health and safety or political correctness. I remember vividly my father walking me through vacant land in Pine Hill shooting rabbit for their skins to add to my pocket money. Try that today, the armed defenders would be out and your day would not end happily. The down side to this was the stifling of any sort of alternative view from our circles norm. My grandfather would have seen university as a place for hippies and bludgers that were incapable or too lazy to get a real job. Any proposed new comer into our family would have had to pass through a Catholic religion grilling comparable to the Spanish inquisition. Considering even the food. The habitual Sunday roast the highlight of the week, with the rest of the weeks offerings punctuated with Kiwi classics. Mince rissoles (I'm still a fan) Corned Beef and mustard sauce, a Chicken if you were lucky and of course Fish on Friday, Fish and Chips. Imagine what a decent amount of butter and some salt would have done to the mashed spuds, what twenty minutes less in the pot would have done for the broccoli or what a couple of slices of sour dough would have done to our toastie pies. Although it would have been unthinkable to try something new or different... and we probably wouldn't have admitted it was a better product anyway.

DEFINING MOMENT #1

At the age of six our young family was to be put to the test in the first of many defining moments in my life when everything we owned was destroyed in a house fire. My hard working parents were just starting off my Fathers plumbing business, he also worked a second job at a tanneries in Burnside to supplement their income while my mother worked sewing tents on a graveyard shift at a local Dunedin camping business. I had been at school for one year, my younger sister had just started school and my mother was pregnant with my youngest sister.

Busy lives meant juggling school with work and other interests, and then we all lost everything due to an electrical fault in the house wiring. Thankfully everyone was out of the house at the time but remembering the effort put into getting our family to the stage it was, and seeing it being wiped out within four hours was very powerful. Although very young myself this event cemented in me the need to pick yourself up after adversity, work even harder and naively instilled the need to earn money as quickly as possible to safeguard your lifestyle.

I attended Catholic school, both primary and secondary, until fifth form were I made the decision I was far too clever for this education system and I would enter the work force and make a fortune as *something*, yet to be determined. For the longest time I was sure that idea would work out for me, as I have discovered through my life's experience, hindsight yields very little without considering more than one view or way of thinking. If I am proud of only one thing it is we have instilled in our children the importance of a solid education along with the importance of transferable skills to fall back on.

WONDERING THROUGH ADOLESCENCE

One of the conditions laid down by my Father for leaving school at fifteen was I had to enrol in something useful at the local Polytechnic. As highlighted, my family came from the trades where building, machining and welding were more highly prized than any diploma or degree so I enrolled in a basic welding course which I passed with flying colours as I was already quite proficient through welding in my Father's plumbing workshop. This, along with the burning desire to start earning money drove me to find employment. This came out of the blue with an offer to work in a shearing gang as a presser (a far cry from welding) if I signed up with the Otematata senior rugby team as they were looking for a hooker at the time. Rugby and a job, how could I loose?

After the season had finished a friend and I decided to move to Auckland and make our fortune, after all we were both sixteen years old, both had been working for six months, and we both had a basic certificate from a Polytechnic, how could we miss? We were in such a hurry to start we drove Dunedin to Auckland in twenty-six hours virtually non-stop. Having secured positions at the Wiri wool stores in Manukau we both worked there for just over a year, myself on a forklift, my friend classing wool, not quite living up to our high lifestyle expectations. Making a fortune at sixteen in Auckland proved harder than first thought. Rent proved to suck away most of our earnings, food was always an issue as neither of us could cook, even transport in Auckland, was expensive. We both decided to try our luck in a smaller town. The answer came with a recommendation to apply for a welding apprenticeship at a transport engineers down in Thames,

which I was lucky enough to secure. Moving to Thames at seventeen and working in “The Black trade” as it is known (due to the thick layer of pitch welding smoke staining your skin) gave me security of employment as well as kudos and approval from my distant family that I was finally on the right track. This is where my first introduction to my lifelong career takes place, my introduction to the hospitality sector that would set me on a path of exploring unknown intrapersonal skills, my love of food and cookery, the lifestyle of young people in hospitality and the formal training from European Chefs and Managers. This also came with the unhealthiest lifestyle of alcohol and drug abuse, which was rife in the industry when I joined. The endless nights of little sleep, the working hours of which no other profession at the time would have tolerated.

DEFINING MOMENT #2

As I have said I worked as a welder at Transport Engineers, located in Kopu just outside Thames. The job comprised mainly of sitting under a dark welding helmet all day, arc welding truck and container floors with 4mm iron power rods, this had the end effect of keeping you in the shower at the end of the day coughing up welding smoke till your lungs hurt. I often wonder what sort of shape I would have been in if I had stayed in that industry. In my second year of my apprenticeship I had walked into the Kopu pub, as I had done at least three times a week for the last year and a half, and overheard the staff talking about how short-staffed they were for a Friday night, I managed to wangle my way into their conversation and always being keen to make a little extra money, it wasn't long before I was knee deep in the washing up area of the Kopu pub kitchen. For the next six months I welded during the day then cleaned dishes and pots, waited tables, poured beer and scrubbed out bins at night.

What a ride... I was making more money at the pub, talking to people all day, getting fed and even getting free beer. This was a huge realisation for me; this is the industry I wanted to be involved in. This was defining moment number 2; this was going to be a new beginning.

MY TRANSITION INTO HOSPITALITY

So, I never made my fortune moving to Auckland or Thames.

I came out of this experience richer by knowing which future path I wanted to take while being very unsure of how to begin. I move back to Dunedin to take stock and to format my training pathway, at that stage I didn't even know it was called hospitality. Reflecting again on how I went about this next stage shows me I was considering a theoretical model then also, I just didn't know it. My method was a basic SWOT.

What were my strengths, this included the short amount of time I had worked in the industry already, weaknesses included my perceived lack of formal training, the opportunities were everywhere as there were so many positions available in hotels and restaurants at the time and threats, only my own worries about how my family and friends would react to my desire to switch careers? The later was the first to rear its head as an issue and was probably the loudest. The future career I had chosen was seen as servile by some family members and my engineering friends were even more scathing and many comments were passed regarding maybe a changing of my sexual orientation. In the end this really didn't worry me too much. For the most part their lived experience came from one view only, and that was never going to change. The one constant

were my parents who supported me through whatever mad endeavour I wished to pursue, although never short of a dig now and then.

Entering the Dunedin hospitality scene was so very easy; numerous jobs were available in the late eighties. I chose to work at the Shoreline Hotel, a hugely busy place with three bars, off licence, a night club, busy hundred cover restaurant (that turned over tables two to three times) and accommodation. The Shoreline gave me the confidence to stay in the industry and pursue my goal through to management. At this time I had only worked in two establishments in Dunedin, the Shoreline Hotel and the Southern Cross Hotel. Although in both establishments there wasn't a section or job I hadn't filled in for or timetabled on to.

Defining moment number three sees my move from busy small town hotel, from which I took all my foundational training, into the international client based resort locations, operated at the time by THC, Tourist Hotel Corporation of New Zealand.

DEFINING MOMENT #3

My journey through the THC chain of hotels was a whirlwind of locations and change of positions through training. As too, the THC chain itself was evolving from government run hotels to ownership by offshore hotel chains, South Pacific Hotels, Carr, Travelodge, Hilton etc.

My movements and positions included

- Milford Sound as a cocktail barman while moonlighting in the kitchens.
- Transferring to Wairakei Resort as Bistro supervisor and part time duty manager. Providing cover at the Grand Chateau as duty manager in Reception.
- Back down to Milford Sound and Te Anau THC hotels in a variety of positions, Reservations and Hotel Reception.
- Then to Auckland working at the Auckland Airport Travelodge as Duty Manager.
- Back to Wairakei resort as Receptionist then Beverage Manager.

Every Hotel and position adding to a comprehensive skill set in both back and front of house.

A transfer in 1994 to the Hermitage Hotel in Mount Cook led me take stock again and I decide to specialize, this is where my U-Turn from management back to the kitchen takes place. Again advise from all directions come flooding in.

"Why would you give up all that time and effort to cook"? That question followed me through my formal Chefs training for three years, the answer was again I felt it the right thing to do. Again I sought out and was given the opportunity to complete an apprenticeship in professional cookery.

Having such an extensive background within hospitality at the time of taking on my Chefs apprenticeship aloud me to reflect on, not only previous kitchen experience but also personal management, financial management as well as purchasing and receiving management, quite a head start within my training. Given the opportunity to learn from the European Chefs and systems employed by the Hermitage Hotel gave me the classical foundations of my trade that were unparalleled by any other training possibilities. This entire five-year training time frame I consider as the major influence for how I operate or practice today. Defining moment number three encompasses this five-year period.

Yes, you could define my work methods as authoritarian, with a hierarchical definition embedded into a system. My view on constructivist methodology in learning extends so far in theory, as when reality bites and my behaviourist bent for foundational experience is preferred.

WORKING AS A PROFESSIONAL CHEF

On completion of my formal Chefs training my Executive Sous Chef who had moved to Christchurch to take on the role as Executive Chef at the new Centra Hotel invited me to work for him as his Chef de Partie. A role I was pleased and flattered to take.

Moving to Christchurch allowed me to implement my training in another context and experience more responsibility as even more challenges were allocated to myself. I absolutely loved this time in my career. I was a sponge with technique and obsessed with reading the latest trends for hotel offerings and functions. I worked part-time for the convention centre in Christchurch and was able to gain experience with huge numbers of covers, again soaking up these experiences and filing away the logistics to draw from another time. Moving through to the Chateau on the Park gave me the opportunity to work and be responsible as Sous Chef in a Fine Dining context. While there I also ran and covered everything from breakfast to weddings. The next offer to move came from again, someone I had previously worked with. This was an offer to take a Chef Manager position at the Christchurch Public Hospital. While initially unsure of the move the learning experience was indeed worth the time spent. Learning to balance enormous budgets against food and wage costs, catering for not only cyclic patient menus but also café outlets, internal functions, 24-hour shift requirements and vending machines. A massive operation where delegation is key and system clarity is essential. Here, as within all my employment positions I had some very capable and wonderful mentors guiding me through my learning and training. Does anyone stand out... probably not, I can say there have been many influences but I consider I have tried to take the best from several mentors and colleagues and model my practice from theirs.

By this time my partner and I have two wonderful children, we have just finished renovating our first house and life seems to be running on fairly smoothly. I then find an advertisement for a Hotel Executive Chef in Dunedin. We had been discussing future schools for the children and wondered how we would manage the zoning rules in Christchurch. We weigh up the pros and cons and decide to apply. I am successful with the application so we sell our house, and move to Dunedin. The hotel Exec's job is as expected, normal routine, budgets, functions weddings etc. I really do feel very lucky to have been successful with this position but there is something missing. I think it was the pace, as a Chef I need challenge, I crave pace, and I want to be pushing my boundaries in creativity and organisation. This position lacked the spark to keep me interested. Then out of the blue again an ex tutor of mine had heard I was at the Hotel and asked me if I would consider delivering a few practical classes at the Dunedin Polytechnic. Me... A teacher? Here is the next and current layer of my journey.

THE CURRENT TRANSITION INTO TEACHING

Once eloquently summated by Chef Tony Heptinstall, “I’m no longer trying to be a cook that teaches, I’m now a teacher that cooks” I started working at the Otago Polytechnic in a part-time capacity delivering the odd class to a part-time cohort of entry-level cooks. A fulltime vacancy became available shortly after and I was employed fulltime as a junior lecturer.

This position gave me the opportunity to deliver the full-time program to level four students under the guidance of Chef Adrian Woodhouse. Under his and all the cookery teams tutelage I have been able to progress through to the position I currently hold, Senior Lecturer on the Bachelor of Culinary Arts. Moving from a set curriculum based delivery, which has been in place in one form or another since the early 1970’s through to the design, project based delivery we work with today, has required a mind shift in thinking and practice. I personally struggle constantly with the tension between traditional “training” methodologies and the freedom that the design based practice allows. Personally, I need to find balance between, who’s learning is it? And what is the base amount of foundational knowledge a student needs.

Are we better facilitators of learning than instructors through rote based practice? If we interpret what industry has said, we need workers with transferable skill sets, we need flexible thinking and modern approaches to new experiences in food and delivery. Mechanical and Digital innovation may help in efficiency and preparation, hopefully not at the expense of creativity and innovation of craft.

REFLECTIVE PRACTICE TODAY

I have a strong interest in digital technologies and support the idea of shared and free access to digital technology platforms. Within this digital age we access information at the click of a mouse or swipe of a screen. One of my ideas and current projects is to allow students to reflect on their progress through a project, and then give digital feedback to each other. Not only on the sensory evaluation of completed culinary dishes but consider and give feedback on their personal communication skills, collaboration skill set, problem solving or work ethic. Using a newly developed web based platform students feedback can be reviewed and the iteration process can begin on outcome or process via a platform and media most students are native to.

This (in my opinion) can be viewed as true reflective practice as the formation of new ideas may come from iterative evaluation. Bowden and Marton write “The process of learning is not about the accumulation of material but about the process of changing conceptions”.

(Bowden & Marton, 1998) I wish to explore the reflective process in tertiary teaching and learning to better understand its process and how I can further implement reflection through technology. I would like to consider this as a question that forms the basis for my Master's in Professional Practice. "Considering Reflective Practice in Teaching and Learning"

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APPENDIX SEVEN: CURRICULUM VITAE

Stephen Ellwood

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Dunedin
New Zealand
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Email: Bellwood@xtra.co.nz

Date of Birth 23.01.66

Health Excellent

Objective

The following work details my working history.

Educational Qualifications

Bachelor of Applied Management, Food and Beverage
Graduate Certificate in Tertiary Teaching and Learning (Level 7)
Trade Certificate in Professional Cookery
General Managers Certificate
167/168 Food Safety Certificates
Diploma in Wine making and Appreciation
4098 Industry Assessors certificate
21855 Culinary Arts Judges certificate

Additional Achievements

National Tertiary Teaching Excellence Award 2014
Excellence in Teaching Award, Otago Polytechnic, 2010
Excellence in Innovation Award, Otago Polytechnic, 2008
Current First Aid Certificate
Basic Fire-fighters Certificate

Hobbies

Golf
Guitar
Cooking

Employment History

2007 – Present

Position:

Senior Lecturer

Otago Polytechnic, Dunedin

Responsible for:

Bachelor of Culinary Arts, Varied Papers

Level Three/Four Full-time Catering Program

2006 – 2007

Position:

Executive Chef

Mercure Leisure Lodge Dunedin

Responsible for:

Executive Chef in charge of all catering operations within the Hotel.

2006, (part-time)

Position:

Part Time Catering Tutor

Otago Polytechnic

Part time position as relief tutor

2004 – 2005

Position:

Chef Manager, Canterbury District Health Board, Retail.

Responsible for:

- Head Chef in charge of all operations pertaining to the catering requirements for Christchurch Public Hospital, including all retail outlets catering for 2500 staff, two coffee shops and all function operations for the CDHB.
- Menu trials and design of special diet meals as directed and in conjunction with CDHB dietitian.

2002 – 2003

Position:

Sous Chef / Senior Chef de Partie, Château on the Park, Christchurch

Responsible for:

- Senior chef in charge of morning shift, reporting directly to the Executive Chef.
- Maintaining food and staff costs within the allowed budget
- To train and motivate staff
- To ensure the quality of internal and external customer needs are not only meet but also exceeded.

2001 – 2002	<i>Position:</i> Chef de Partie, Centra Hotel <i>Responsible for:</i> <ul style="list-style-type: none"> • Mainly responsible for the saucier section • Acting Sous Chef in the absence of senior chef
2000	<i>Position:</i> Tournant, Demi-Chef de Partie, Hermitage Hotel, Mt Cook
1996 – 1999	<i>Position:</i> Unqualified/Part Qualified Commis chef Hermitage Hotel, Mt Cook
1996 – 1997	Travelodge Manager
1995 – 1996	Hermitage Hotel, Mt Cook Duty Manager Hermitage Hotel, Mt Cook

References:

Caroline Terpstra
Head of School - Design, Food Design Institute

Adrian Woodhouse
Principal Lecturer/Academic Leader Bachelor of Culinary Arts