Evaluate the effectiveness of project-based learning in a hospitality management programme for developing work-ready students.

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Course 3: Advanced Negotiated WBL Project
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Cover Illustration

Otago Polytechnic Graduation. (Otago Polytechnic, 2018).

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List of Abbreviations

BAM	Bachelor of Applied Management
BCA	Bachelor of Culinary Arts
CCPs	Critical Control Points
D4LS	Design for Learner Success
FKM	Financial Kitchen Management
F&B	Food and Beverage
FCP	Food Control Plan
FDI	Food Design Institute
GPOs	Graduate Profile Outcomes
GP	Gross Profit
LCF	Learner Capability Framework
LO	Learner Outcomes
LA	Learning Agreement
MPP	Master of Professional Practice
NDHM	National Diploma in Hospitality Management
NZDHM	New Zealand Diploma in Hospitality Management
ORID	Objective Reflection Interpretation and Decision
PBL	Project Based Learning
RoVE	Reform of Vocational Education
RoL	Review of Learning
SIT	Southern Institute of Technology
SOPs	Standard Operating Procedures
SRL	Student Regulated Learning
TRoQ	Targeted Review of Qualifications
WBL	Work Based Learning
WBR	Work Based Research
WIL	Work Integrated Learning

Attestation of Authorship:

"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 acknowledgements), 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."

Signed:

Daniel Pfyl   _____   Date: 22 November 2019

Acknowledgement

I would like to acknowledge the following people who made my work-based research (WBR) project possible and who helped me along my MPP journey.

Dr Bronwyn Hegarty, my academic mentor, for her guidance and support through the successes and challenges of my MPP journey and the support in my academic writing. The help to navigate difficult issues and obstacles which required me to focus on the actual task at hand; this focus was supplied in buckets by Bronwyn.

The Design for Learner Success (D4LS) team, without them the NZDHM programme would never have happened, the process during the development and roll-out phase of the new programme was both inclusive and collaborative with a good measure of creativity in problem solving and a collegial approach to getting things done.

Dr Glenys Forsyth for being flexible in accommodating my many timeline changes, this was very much appreciated.

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To my wife and partner for the encouragement when I hit rock bottom, and the continuous support during this journey, I know you will be glad when it is over.

Executive Summary

My writing of this report and critical commentary was based on the belief that PBL strategies are an effective way to guide students' learning and to develop work-ready capabilities for the 21st century.

The purpose of this work based research (WBR) project was to investigate if PBL was an effective teaching and learning strategy for developing work-ready students. Therefore graduates of this programme will be work-ready with transferable skills to take them to their chosen career path and equip them for the inevitable changes on the horizon, with the disruption predicted in the future. A further inclusion to the purpose was to look for successes and challenges with this PBL approach.

The literature review in phase 1 explored contemporary PBL approaches, in particular the effectiveness of the approach to guide students' learning and development of work-ready capabilities. I explored what the difference is between designing learning and teaching to develop technical skills and learner capabilities.

For phases 2 and 3, a mixed methods research approach has been used as a general review of the programme and an evaluation of the effectiveness of the PBL approach. This research approach was chosen because the data gathered included both quantitative and qualitative information to help ensure triangulation.

I included student evaluations and surveys for the student voice and colleagues from the Food Design Institute (FDI) in my focus group meeting, to widen the educational perspective. During my research into PBL for my WBR project I looked for successes, but also the challenges of using PBL. This gave me the ability to put it into context with my research project which was undertaken in a hospitality management programme.

I also included justification for my learner capabilities embedded into the educational design, but also acknowledge that since the Learner Capability Framework research in 2018 and subsequent draft report of the top 10 industry specific requirements from our graduates, that this is in need of review.

In the results section I present the integrated qualitative and quantitative information and data I have collected and highlight the findings and main themes. My desire was to use my teacher self-evaluation to reflect on my professional practice and determine potential need for change.

The response, changes needed and adjustments that were required 'on the fly', from the feedback gathered are described in the discussion section.

The aim was to investigate my professional practices and how they changed along this MPP journey. These are scattered throughout this WBR project but also summarised in my reflection and critical commentary section.

This includes my professional practice shift and my personal opportunities for improvement. I finish with my recommendation for future research, in context with my programme.

The content of this report used multiple documents and this is highlighted in the appendices.

Introduction

The original project was planned to be for the Financial Kitchen Management (FKM) course I was teaching at the time in the Bachelor of Culinary Arts (BCA) programme. However in 2016 the FKM course, part of year two of the BCA programme, was not being offered to the students and discontinued as an elective. Therefore my WBR project had to change.

In mid-2016, the National Diploma in Hospitality Management (NDHM) (Level 5) qualification went through the D4LS process as part of the Targeted Review of Qualifications (TRoQ). I was part of the team redeveloping the old programme to the NZDHM programme. This responsibility landed 'in my lap', being senior lecturer and programme lead of the NDHM programme in the FDI and I, together with the programme manager and the D4LS team, embarked on this journey.

It became evident, early on, that the programme manager had to withdraw from this project, due to other work commitments and it ended up to be myself collaborating with the D4LS team in the development of this qualification and eventual first delivery in 2017. The phases the team went through were: preparation, programme design, blueprinting, integration, course development and finally the first delivery in 2017. As I was looking for a new WBR project and a substantial amount of work went into the development of the NZDHM, I suggested this could become part of my MPP. During the discussion with my academic mentor and facilitator, we agreed that this would be a great opportunity not to be missed.

As I was putting in so much of my time, it was in my view, a learning opportunity like no other. In the past I have developed courses, but never an entire qualification from scratch. Having someone like the D4LS team, looking from the outside-in, was another advantage of taking on this project. Questions like: 'why do you do this in such a way', and, 'would there be another way of doing things?' were invaluable, especially for myself, as I had been offering the old NDHM programme for a while and was looking for new and contemporary ways of teaching management practices.

The autonomy I had over the development of the NZDHM programme made this a perfect WBR project. Here I could make changes, have an applied learning and teaching approach in the design, make it relevant and develop in-context assessment. I was also able to integrate my personal and professional learning and development and gain a higher qualification, the MPP.

The resources and especially time I had available to me were a bit limited and challenging to say the least, but were enhanced by the D4LS team, their combined knowledge, understanding of contemporary learning and teaching approaches and desire to assist in the development of an exciting new programme made it all possible, together with a large dose of hard work.

The FDI team at the time was beginning to use PBL, and even though I was still teaching unit standards, this inspired me to looking for an applied, practical PBL approach. The problem was, if I used PBL were students being prepared to become work-ready? PBL worked well with my values of giving students autonomy and input into their learning. However I still needed to know that students were developing skills and could demonstrate a comprehensive understanding of the management practices applicable to the hospitality industry, both nationally and internationally. I wanted to increase the buy-in and motivation of students, not just being given the task to operate one of our commercial food and beverage (F&B) facilities, but developing their own concept, product, service standards and then implementing the project into a real-life scenario, using appropriate promotional strategies and technology.

Aim

The aim of my project was to evaluate the effectiveness of the learning and teaching strategies used in the first deliveries, during 2017 and 2018, of the newly developed NZDHM programme.

I investigated the relevance of the PBL and teaching strategies used for guiding students' learning, and the evidence that learners develop their work-ready capabilities.

The work-ready capabilities investigated were Critical Thinker, Communicator, Collaborator (works in teams), Creator (thinks creatively) and Digital Competency.

My learning outcomes eventually became that by the end of this project I would be able to:
1) Plan and implement a WBR project
2) Critically analyse literature about contemporary educational approaches
3) Prepare a literature review to inform educational design and teaching practices
4) Integrate ethical practices within my WBR project.

Background and context

Going back a step or two

I have over 20 years of experience in learning and teaching here at Otago Polytechnic, starting with professional cookery in our Tennyson Street campus in 1999 for several years, and then in hospitality management practices (procedures and strategies) across the NDHM and the BCA programmes.

During the time teaching in the two programmes I have redeveloped, added and improved the course's curriculum and my teaching methods considerably. However, the approach was more 'ad hoc', 'on the run' and not well informed by research.

My work-based learning

My research project uses education as its context and specifically the NZDHM programme where the WBR project took place. The old NDHM programme was steeped in a pedagogical approach of unit standards and underpinning knowledge testing. Here I had the opportunity to be part of a team redeveloping the qualification to a student centred approach, using PBL and teaching strategies at its foundation. During this development and delivery phase my professional practice has changed and I have adapted, not just since the roll-out, but also the diverse learner groups the programme attracts. I use resources available to me here at Otago Polytechnic such as my work colleagues and their understandings of the topic and willingness to share. The project report is likely to yield insights and make it worthy of interest to other tertiary providers, colleagues and practitioners in the hospitality industry.

Preface

Looking back; where do I come from?

I began my career in a structured, three-year chef's apprenticeship in Switzerland in 1975. Since then I have had a colourful and adventurous career with various roles as a Chef around the world. Some highlights include my role as the Executive Chef to His Majesty the Sultan of Brunei for almost five years, two years with the Hyatt Regency Hotel in India, and a few stints with International Hotel Chains in Switzerland, Australia and New Zealand.

With my background of hospitality professionals in my family I stood no chance at all; my dad was a pastry chef by trade and my grandparents were hoteliers. Mum and dad ran a pastry shop and café on the shores of Lake Zurich for a few years, this was when I was in my pre-school years. I can vaguely remember getting into trouble, sneaking into the bakery and eating pastries. I also remember waiting up at night whilst mum and dad finished the cleaning up of the cafe and bakery until late. In later years, at home, my parents always displayed great hospitality to family and friends and my dad spent hours in the kitchen preparing food, I remember doing the barbeque and in general was always keen to help or hinder as the case may have been, in the kitchen. I believe the kitchen is a perfect place for kids, you are never too young to learn about food and both my boys have always shown that they appreciate good food and can cook a bit as well.

My dad always guided me towards being a chef: "you will never be without a job", and how right he was. Growing up in those circumstances, I think it would have been

difficult not to have learnt to love food and their interest and enthusiasm for hospitality were more than infectious.

Early on I realised that hospitality is a great industry to be part of with excellent career prospects and you can travel the world. Above all it is a varied and sociable industry to be in and with a bit of hard work, attention to detail and a flair for creativity you can go a long way. My industry experience spans across 24 years, my careers advisor in school suggested that this industry would not suit me: "you like sport too much and you would have to give it all up"; how wrong can you be?

In reflection I believe the team environment I enjoyed whilst growing up and playing football was the same as I experienced in the kitchens I worked in, a sense of belonging I suppose, maybe this is why I succeeded in the industry, where working together as a team is more important than individualism.

The 20 years of my education sector journey at Otago Polytechnic

In 1999 I decided that it was time for a change and to give something back to the industry which had treated me and my family so well over the years and I joined the Otago Polytechnic teaching in the Professional Cookery Certificate Courses. The highlight of my job then was, and still is, the working relationship I have with my students; I view them in many ways as my customers, because without them I would not have a job. I enjoy watching them transform into capable, work-ready chefs and/or managers set for a successful career in the hospitality industry.

Since working at the Otago Polytechnic, I completed the Certificate in Adult Teaching at the then College of Education in Dunedin in 2001. In 2008 I completed the Graduate Certificate in Tertiary Learning and Teaching (Level 7) and then the Bachelor of Applied Management (BAM) (Food and Beverage Management) in 2011.

Also, in 2011, I was the recipient of the staff Excellence in Teaching Award for Inspiring Teaching, and then again in 2012 with the BCA team. Subsequently the team was awarded the National Teaching Excellence Award in 2014 and I am now a member of the AKO Aotearoa Academy of Tertiary Teaching Excellence. This has given me the confidence to accept that what I do is of excellent quality and it is recognised as such. Furthermore, we have the added benefit of meeting inspiring lecturers and teachers; the networking benefits for all involved is invaluable, given the learning and teaching ideas and technologies used in different institutions around the country.

Fast forward to 2019 and I am part of the Food Design Institute as Senior Lecturer here at Otago Polytechnic, teaching on both the BCA and the NZDHM programmes. I have specialised practitioner's skills in kitchen and F&B operational management, marketing fundamentals, human resources management and financial control systems, all from the industry and from teaching these topics here at Otago Polytechnic.

My professional development up to the start of this journey

During my BAM study I developed my own F&B Strategic Model of Practice, this is part of my starting point to highlight my change in professional practice since 2010.
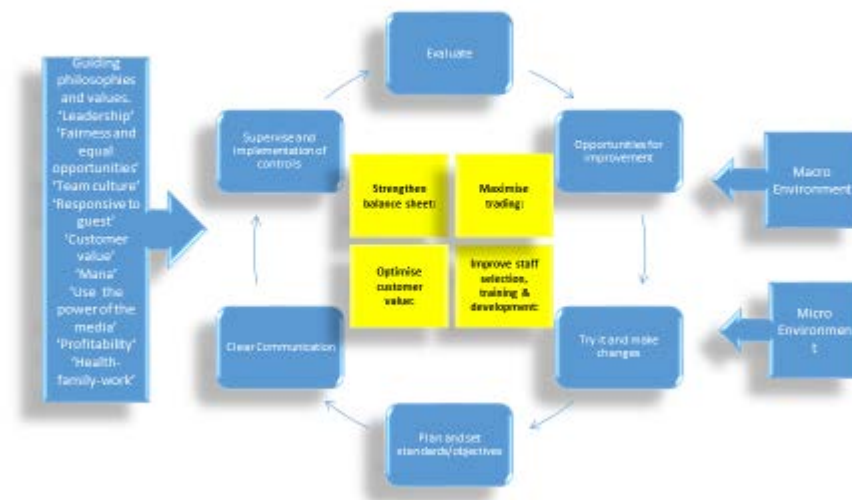
Figure 1: Strategic Food and Beverage Management Model. (Author, 2010).

This strategic management model was an accumulation of all my experience, both industry and Otago Polytechnic and was influenced by the Kolb experiential learning cycle, (Kolb, 1984) and the strategic loop (Sull, 2007). As can be seen in Figure 1, the strategic loop has six stages, which can be used to achieve F&B business objectives (in the centre of the model) and implement strategies within a F&B operation, be it in a commercial or educational setting.

1) Evaluate: It would help to ensure the environment is evaluated through data and available information, both internal and external sources.
2) Opportunities for improvement: Opportunities and constraints are taken into consideration to highlight action for improvement. Creativity and team culture are important here, allowing creative people to create and lead projects.
3) Try it and make changes as required, from feedback received.
4) Plan and set standards: Planning takes place and standards and/or objectives are set for implementation, after confirmation. They must be realistic and achievable, however if they are set high, in my experience, students involved have been more likely to aim for a high standard and not just mediocrity.
5) Clear communication: Timely, clear communication of the standards and/or objectives so they are understood by the team, this can be verbal in pre- or post-briefings or written as a critical control points (CCPs) or standard operating procedures (SOPs).
6) Supervision and implementation of control: Besides good communication during the implementation phase, supervision of these CCPs and SOPs and possibly take corrective action, are important steps often overlooked.

CCPs are part of the responsibilities set earlier to each member of the team, I am not talking about controlling students here, rather use their strength to implement and maintain these CCPs and SOPs (measurement of success). Throughout, continuously reassess and adjust to the changing circumstances so you are able to respond quickly to opportunities and/or threats. Be flexible at times, plan and delegate. Students won't do a particular task 'exactly' how you would, I then ask myself the question "can I live with it?", if I can't I take corrective action, because after all you can't compromise standards; if I can, I let it go. I believe in delegation, having trust in people and let them get on with the job or task, this enables a lecturer to focus on the 'big picture'.

The objectives and strategies of this model suited my approach and the idea to partly commercialise education. Revenue and expenditure control, monthly financial reporting and strategic supply chain management are three examples to achieve this goal. Maximising trading of our Manaaki M-Block F&B facilities, now including a Food Truck, with strategies to take advantage of opportunities of our central campus location. Research into customer wants and needs was a strategy I needed to use to increase customer satisfaction and perceived value. This was a model that I wanted to use whilst developing our new NZDHM programme to form the foundation for the development of management practices embedded in the NZDHM courses.

From my industry experience as an Executive Chef and F&B Manager I brought to my teaching role the notion that I wanted to develop a team culture in the 'classroom'. I liked to give autonomy and involved students in decision making, as far as unit standards allowed for this, provide them with guidance and build a supportive, yet challenging learning environment. The inverted pyramid (Figure 2) adapted from Blanchard, (1982) shows how I built a supportive environment in the hospitality industry. I then transferred this to my role in the educational setting in our commercial Manaaki F&B facilities; to be responsive to my students so they in turn are responsive to the guests' needs.

This changed the educational setting, students were no longer responsive to me as a lecturer, but responsive to the wants and needs of the customer, as it should be.

Improve staff selection, training & development *and the resulting philosophy*

Guest

Line staff

Supervisory staff

Management
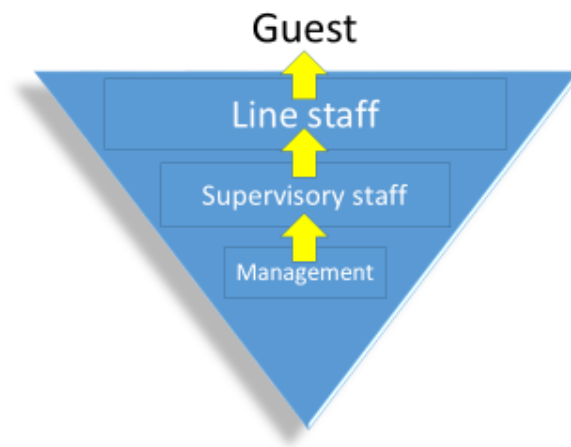
Figure 2: Inverted Pyramid Philosophy. (Author, 2010).

My teaching style was then and still is today to put students first and provide them with support, teaching of technical (cognitive) skills and providing resources to achieve their assessment requirements. My objective was to establish a collaborative, collegial and empowering learning environment. Such a learning environment helped prepare students to receive feedback constructively. For example, my approach of 'praise in public and give critical feedback in private' was successfully used here.

Education and commercialisation

On the way back from one of my overseas trips I visited the Hong Kong Polytechnic University. The Head of School, Professor Kaye Chon was overseas, so I arranged to meet with two of his colleagues, Andrew Chan, Assistant Professor and John Ap, Associate Professor; they showed me the facilities (restaurant, kitchen and class/computer rooms). We discussed and compared the Hong Kong educational approach with ours, processes are compatible and of particular interest to me was the commercialisation. What impressed me at the time was to see the shift in educational philosophy to add a commercial facility. The university planned a new hotel and this was to include the hotel school. The new 'Hotel Icon' is now in operation, includes a 262-room deluxe hotel, a conference and training centre, research and training facilities.

Interestingly enough the hotel school I visited in Switzerland during the same trip, used to have a set up like this, but changed it back to a purely educational establishment, stating that the educational outcome was their priority and the push for this change of direction. Here I had a great lunch in the restaurant which is set up to cater for three different styles of service: Table d'hôte service plated, gueridon and self-service buffet and open to students (included in their fee), staff and their guests. The situation was different here, the Swiss Hotel Association is extremely supportive of the work

experience placement scheme, where a student spends six months a year in a hotel, of their choice and therefore receive additional work-based experience and training whilst getting paid.

Both of these two hotel school examples had different strategies, further fuelling the discussion of advantages and disadvantages for educational organisations to go down the path of having commercial F&B facilities and real-life learning. I do believe to be financially sustainable we had to move towards commercialisation in education and it was important above all to give our students a real-life opportunity, where we can monitor, control and provide standards. I do also agree that we are running a commercial business at our Manaaki F&B facilities and must return a commercial Gross Profit (GP). I believe that we should treat Manaaki differently to the purely commercial outlets and have a more modest contribution target. This would improve the value for money for our target customer and in turn increase our customer numbers. More customers would give our students the 'real life' experience, the students would be more motivated and gain on the job skills in a busy environment and in turn gain job satisfaction. This would also improve the perception from the industry that our commercial experience is the real thing and that we want our students to be well prepared for work. But for this we needed a full restaurant with plenty of opportunity for students to learn, be busy, rushed off their feet, have to deal with complaints, delayed food orders and grumpy chefs, in short, the pressures of our industry. Otherwise it is my belief we are setting them up to fail when they enter the industry for real.

Qualification context

What are hospitality management studies? To put it into a New Zealand context this would typically mean the basics of restaurants, cafes, bars and clubs and event catering. This is in some cases referred to as hotel and tourism management with high profile cases such as the Hotel School in Lausanne, Switzerland, Cornell University's School of Hotel Administration, Hong Kong Polytechnic University's School of Hotel and Tourism and the Emirates Academy of Hospitality Management in Dubai. The topics typically include management of compliance (law and legislation), human resources, finance, marketing and F&B and hotel operational management.

In most cases an applied teaching approach is evident in a commercial operation, the Hong Kong Polytechnic University's School of Hotel and Tourism runs the Icon Hotel as a teaching and research hotel. The Hotel School in Lausanne, Switzerland has several training restaurants, one of which has a Michelin star, bars and a cafeteria. In 2013 I was able to visit the University of Hawaii, Maui College; here the intention was to investigate how they showcase student capabilities within the Pa'ina facility, including Hotel Ha (Figure 3). I was able to observe how these facilities were used for education, applied learning and how this integrates into the UH Maui College commercial environment.

The F&B facility featured a restaurant, 'Class Act', and a food court with several different fast/casual outlets; the Japanese food outlet Raw Fish Camp, the Campus Café, the Patisserie, World Plate, Paniolo Grill and Farm to Table with a cold buffet selection. They were all run by the college students and the learning was facilitated through a lecturing staff member in each outlet.

Figure 3: The Pa'ina facility and my visit to University of Hawai'i Maui College. (2013).

Work experience is another way to use an applied teaching approach, this was evident. The UH Maui College has a strong relationship with Chef Tylun Pang at the Fairmont Hotel Kea Lani on Maui. The Emirates Academy of Hospitality Management in Dubai have a six-month internship after completion of the first year of study and since they are linked with the Jumeirah group this is often done in one of their hotels.

Project-based learning, how did I test the waters?

From these observational experiences I started asking questions; was there an alternative model for Hospitality Studies applicable to the NDHM here at Otago Polytechnic? I started testing the waters with a contemporary educational approach and commercialisation in mind. Here I searched for a unit standard that would give me the opportunity to apply this new approach and I started getting students to prepare International dinners in 2009 (Figure 4). Here, whilst using unit standards, I applied a project-based learning approach where students, in groups, researched an international cuisine, then presented their findings over a two week period to our customers at Technique Training Restaurant (now Manaaki). This initiative was very successful, not just with our target audience, but also with the students. The dinners were fully booked every night. Students liked to have a choice of the International cuisines concept, dish selection, planning and implementation (including décor of the food stall).They also enjoyed reflecting on the successes and challenges they experienced over the two weeks.

The students had to work in a team, collaborate, communicate, show creativity and then at the conclusion, critically reflect. This became a bit of a blueprint for the development of the NZDHM programme many years later in 2016.

Figure 4: International dinners. (2009).

My project approach

Research inquiry questions

In order to achieve my objectives the following questions were developed to guide my inquiry:

1) How relevant are the PBL and teaching strategies for guiding students' learning?

2) What is the evidence that learners develop their work-ready capabilities?

My sub questions included:

- What were the successes?
- What were the challenges?

Project phases

My WBR project occurred in three phases.

1) Explore - an exploration of contemporary PBL approaches and literature.

2) Review – a general review of the programme.

3) Evaluate – an evaluation of the effectiveness of the PBL approach with research specific data.

Literature review

In the literature review, see Page 83, existing research and knowledge about PBL is presented, in particular the effectiveness of the approach to guide students' learning and develop work-ready capabilities for the 21st century. I was interested in exploring the concept of PBL and contemporary research on innovations in this area, looking at how learners and their teachers had responded to this approach. This information helped to inform the educational design and teaching practices of the NZDHM programme, and was collected during phase 1 of my project.

Research approach

For this research project in Phases 2 and 3, I used a Mixed Methods research approach, using a convergent parallel design based on Creswell (2013). This methodology was chosen because the data gathered included both quantitative and qualitative information, gathered from a small number of participants within a similar time frame and then integrated to allow interpretation based on the combined strength. Both forms of data were very important to my WBR project to ensure a variety of perspectives and to help ensure triangulation.

To gather data, I engaged with my community of practice, work colleagues, past students of the NZDHM programme and did this with professionalism and with respect for their differing views to be reviewed. I am also acknowledging the value and purpose of the organisation, not forgetting the industry, stakeholders and cultural background both from a New Zealand perspective and my own background.

Ethical issues were carefully considered and my project planning has included a Category B research ethics application (# 646) to the Otago Polytechnic Research Ethics Committee. The subsequent project changes were amended into my original research application, see Portfolio Appendix 4, as my research progressed. Current students were not impacted by my research as only graduates from the programme 2017 and 2018 cohort were approached for the student survey. The ethics approval letters are attached in Appendix 1.

Phase 1: Explore

In this phase I searched for information to discover contemporary PBL approaches, in a hospitality context, where possible. I also explored established research and practices on PBL and looked for information on learner capabilities and if PBL is an effective way to develop them. The aim was to review and critique literature and summarise the existing knowledge on PBL and work-ready capabilities.

For this exploration phase I did the following:

1) Prepared a literature review.
2) Explored PBL innovations – internationally, nationally and locally – the latter in FDI's Certificate and the BCA programmes.
3) Compared my own PBL strategies with other approaches.
4) Explored learner capabilities.
5) Began writing a learning journal (Portfolio Appendices)

1) Literature Review

An updated literature review was undertaken, based on earlier work conducted as part of Course Two to inform my WBR project and as a starting-point for my literature review. I explored a variety of sources, looking for what was out there regarding PBL strategies. I looked for definitions, descriptions and characteristics of PBL and examples of case studies.

I accessed information sources such as books, journals, articles and websites, post-2000, to scan for and select literature that is relevant to my WBR project. I explored literature to investigate if PBL is effective in developing learner capabilities for the 21st century and looked for successes and challenges that others had encountered when

using PBL. I wanted to compare the benefits of PBL to the unit standard and underpinning knowledge test based approach.

I also looked at work-related information, such as conference attendance and FDI innovations by talking to colleagues and observing their professional practices (Costley, 2010). I explored if there are differences between technical (cognitive) skills and capabilities and how academia and the perception of industry vary in the understanding of them.

The steps I followed were: 1) select a topic, 2) develop the tools of argumentation, 3) search the literature, 4) survey the literature, 5) critique the literature and 6) write the review as suggested by Machi (2012).

Step 1

Course 1 of the MPP gave me the opportunity to review, critically reflect and analyse my past learning experiences. This highlighted my own interest and developed my learning and teaching philosophy based on the perspective of an experienced educator and culinary practitioner.

Course 2 gave me a very clear idea of what I would be doing in my WBR project and confirmed the topic, here I also start writing my learning journal to record the literature review process.

Step 2

I scanned and selected literature to identify potentially use for inclusion into my literature review. I started using Zotero as my preferred data management system, this is because of its ease of use and therefore I have discontinued my previous system EndNote.

Step 3

The belief that PBL was an effective way to guide students' learning and to develop work-ready capabilities for the 21st century was developed during the first roll-out of the NZDHM programme and confirmed in the meeting with my academic mentor on 1st June 2018.

Steps 4 and 5

In the same meeting we established the structure of this literature review to collect the information and explore the literature.

We arranged this in two parts; the existing works of PBL and work-ready capabilities, to be able to critically interpret the evidence.

Step 6

The writing done in these first five steps became the foundation for the finished literature review.

Additional areas I explored with my literature review were Student-Regulated Learning (SRL), Work Integrated Learning (WIL) and Work Based Learning (WBL). These topics were highlighted as being an important part of PBL, through my survey of literature in Step 4. One aspect close to my learning and teaching philosophy was the empowerment of students and how SRL is applied in similar educational settings. I had questions that directly related to my professional practice development such as: How can I as a lecturer teach less and facilitate more? How can I guide students to take responsibility for their own learning process and mentor their goal setting? Does SRL together with PBL increase student motivation to see a project through to the end? The literature review enabled a macro view of PBL.

2) Exploring PBL innovations

Here I explored at both a macro and local level. At the macro level I looked for new and innovative PBL approaches for hospitality management studies used elsewhere. I explored the applied learning used at University of Hawaii Maui Campus and Hong Kong Polytechnic University's School of Hotel and Tourism. I was interested in how they integrated applied learning in their commercial operations.

Locally, at the micro level, I explored existing, teaching and learning designs relevant to my project that were used in FDI student projects at Otago Polytechnic to develop capabilities. To do this, I observed the BCA programme with a similar PBL approach and also the unit standard learning approach in the former NDHM programme. I was looking for factors, that make a project authentic and where and how they could be implemented. Certain work-ready capabilities and competencies need to be developed to meet the needs of employers and this was known well before Otago Polytechnic's Learner Capability Framework (LCF) was formulated in 2017. Therefore, I wanted evidence of the effectiveness of PBL in preparing students for work.

The question about what makes a project student regulated was very important to me therefore I was looking at how I could use project design briefs without being too directive or have them too scripted (English & Kitsantas, 2013). Buy-in and motivation are two aspects affected by the amount of 'direction' within project design briefs and I was keen to explore this further. How could I support students in the SRL progression within the NZDHM programme? For this I explored the project design briefs that others used in the BCA programme.

3) A Comparison of PBL approaches

I compared my learning and teaching strategies, for hospitality management studies, with other similar approaches and consider how they relate to my teaching philosophy e.g. University of Hawaii Maui Campus, Hong Kong Polytechnic University's School of Hotel and Tourism.

I explored what the difference is between designing learning and teaching to develop technical (cognitive) skills, content knowledge and learner capabilities. I wanted to know if they are both equally important and how, if they are equally important, they both can be embedded into PBL and student projects. I wanted to know what the industry understand the difference to be between technical (cognitive) skills and capabilities.

4) Learner Capabilities

Here I explored the Otago Polytechnic's BCA programmes '4 Cs for 21st century' (Vaillancourt, 2014) skills with my own adapted model. These '4 C' skills are viewed as capabilities, such as: critical thinker, communicator, collaborator and creator. In my model they are described as the following:

- Critical Thinker – problem solving skills, effective change in management practices through reflection.
- Communicator – ability to express one-self and actively listen to others through visual, written and oral means.
- Collaborator – the ability to work with others, sharing and integrating ideas.
- Creator - thinks creatively, uses curiosity and initiative to anticipate future customer needs and finds resourceful solutions to product development, service improvements and management practices.

Here, as a direct result of my literacy review, I added digital competency to explore, making it my own model of the 4 C's + 1

- Digital competence – the ability to design, plan, implement and evaluate management practices demonstrating digital competence and choice of appropriate digital technology tools.

I compared the BCA and my 4 C's + 1 for 21st century skills model with others such as Ravitz et al. (2012), and Warren (2016), to explore capabilities that could add to the educational design of the NZDHM programme.

5) Learning journal

I used a learning journal to document and explore my professional practice and continuous course improvements in the NZDHM programme. I have recorded this learning journal using the ORID reflective model of Objective, Reflection, Interpretation

and Decision (Stanfield, 2008). Using this reflective practice model, I was able to make cognitive links between academic learning, the real-world and my WBR project. I reflected with my academic mentor, facilitator and work colleagues and recorded information and reflections from these interactions in the learning journal.

The ORID model provides a progression of question types designed to move from reflecting on a concrete experience to analytical and subjective reasoning. It mirrors the Kolb experiential learning cycle (Kolb, 1984). The following are examples of questions I developed to guide my reflections:

Objective: What is the objective and outcome of my WBR project?
Reflection: What are effective PBL approaches to develop capabilities?
    What are some of the relevant PBL approaches for my research?
    Where are my strengths and opportunities for improvement?
Interpretation: How did this change my understandings of my learning and teaching approach?
    What did the experience make me think?
    What are some of the successes and challenges?
Decision: What will I recommend doing differently in the future in relation to my learning and teaching approach?

Phase 2: Review

In this phase, aspects of the NZDHM programme were reviewed.

1) Student Evaluations
2) D4LS Review Report findings
3) Work experience (host organisations) feedback
4) Lecturer self-evaluation and reflection.

The alignment of the inquiry questions and data collection methods used in this phase are shown in Table 1a.

Table 1a: Sampling matrix showing inquiry questions and data collection methods.

Data collection methods	How relevant are the learning and teaching strategies for guiding students' learning?	What is the evidence that learners develop their work-ready capabilities?	What were the successes? What were the challenges?
2017 and 2018 Otago Polytechnic Student Evaluations Phase 2	███		███

D4LS Review Report Phase 2	██		██
Work experience feedback Phase 2		██	██
Lecturer self-evaluation Phase 2	██	██	██

I was looking for information to ascertain the relevance of PBL for a cohort of 23 graduates from 2017 and 2018, and evidence that these learners had developed work ready capabilities. I was also interested in the successes and challenges that they encountered using PBL strategies.

1) Student Evaluations

I analysed secondary data for my research project that was collected by Otago Polytechnic's Organisational Research department in 2017 and 2018. This included data from the following Otago Polytechnic student evaluation surveys, asking about the organisation, the programme and a course:

- First Impressions
- Student Reflection on a Course
- Student Opinion Survey
- Student Reflection on Programme

I carried out the analysis by looking briefly at the Likert Scale and quantitative data, but mostly at themes of the qualitative information. I wanted to find out how relevant the learning and teaching strategies were to guide students' learning.

For successes I was looking under the 'what aspects of the programme/course were best for you?' and for challenges 'how could the programme/course be improved for you or future students?

2) D4LS Review Report

The findings in this report, see Portfolio Appendices, were considered to determine the effectiveness of the first delivery of the NZDHM programme in 2017. Here I wanted to know the effectiveness of the PBL and teaching strategies in guiding student learning. I considered what the impact was on the learners and myself as a teacher and facilitator, what were the key 'takeaways' I got from the process and the successes and the

challenges. I also made some recommendations for opportunities for improvement for the courses in the programme, this again is reflected in my learning journal.

3) Work experience (host organisations) feedback

The data collected included feedback from the host organisation's supervisors and/or contact person about the students they hosted for the work experience placement from both years, 2017 and 2018, and was part of the evaluation process of the course.

I developed a host organisation evaluation form (see Appendix 8) and in my capacity as programme lecturer delegated this task to the work experience coordinator here at FDI, who sent this form to all the host organisations involved in the work experience placements. The work experience coordinator asked that the form be completed and returned to us in week five of the placement.

Prior to that, and in addition to the evaluation form, the work experience coordinator scheduled visit days and times, in week four of the placement and arranged an informal meeting with the host organisation's contact person. For these visits I developed questions to be used as a guideline for the meeting (Appendix 7). I recorded the meeting findings using these questions and collated the information for evaluation. I wanted to know if the students were showing evidence of some of the work-ready capabilities the organisations were looking for in an employee, like teamwork and communication.

4) Lecturer self-evaluation

My review of the evaluative data and my self-evaluation of the first two deliveries brought information together to examine and to help me understand the relevancy of the PBL strategies to guide students learning. I wanted to review the student voice and the D4LS review report to reflect on what I was seeing and look for changes I could implement after the initial reflection. In the work experience feedback, I was looking for evidence indicating if the students were showing some of the work-ready capabilities the organisations was looking for in an employee. Lastly, I was looking for successes and challenges of a PBL approach.

The learning journal, started in phase one, was used to review my professional practice by summarising changes I implemented in the NZDHM programmes courses on an ongoing basis.

Phase 3: Evaluate

In this phase I evaluated the effectiveness of the PBL approach using two data collection methods: 1) Student survey and 2) Colleague focus-group meeting.

Here I gathered data from the 2017 and 2018 graduates, 23, about their learning experience, including work-ready capabilities information. For the student survey I used Survey Monkey as the on-line platform and offered a lunch for two in Manaaki as an incentive for participation. The on-line survey guaranteed confidentiality and ease of use. Twenty-three students were invited by email and followed up through the alumni Facebook page and 11 responded and took part in the survey.

For the colleague focus group I invited two internal work colleagues from the FDI, Adrian Woodhouse and Steve Ellwood to a meeting and sent the questions in advance. Both attended the meeting and both gave me the approval to use their names in this report.

Alignment of the data collection methods with the inquiry questions is shown in Table 1b.

Table 1b: Sampling matrix showing inquiry questions and data collection methods.

Data collection methods	How relevant are the learning and teaching strategies for guiding students' learning?	What is the evidence that learners develop their work-ready capabilities?	What were the successes? What were the challenges?
Student survey with specific PBL and teaching questions Phase 3			
Colleague focus group meeting with specific PBL and teaching questions Phase 3			

1) Student survey

For the student voice, a student survey (Appendix 2), with seven questions using a range of Likert-type scales was developed by me and added to Survey Monkey, for ease of access and anonymity. I wanted this survey to be different to our usual Otago Polytechnic student evaluations to encourage participation with a younger target group. I was asking students about their experiences with PBL and how relevant this learning and teaching strategies were for guiding their learning and what evidence they can see that they developed work-ready capabilities.

The survey was administered by the research administrator. The student survey can be viewed in the Ethics Application (Portfolio Appendix 4) along with information and consent forms.

After looking at the in-context responses of the survey, I decided it was not necessary to conduct interviews, as I felt I got sufficient information to work with because the survey had specific questions on work-ready capabilities, relevancy of PBL and teaching strategies and successes and challenges for me to evaluate.

For the analysis of the survey responses, I looked at the descriptive statistics (percentages) of the responses to Likert-type scale questions, first. After that I analysed qualitative information from students' comments accompanying the questions. I was looking for themes and quotes that would illustrate themes. This analysis was then summarised in a table.

2) Colleague focus group meeting

A colleague focus group meeting was felt necessary to add a wider educational perspective and I decided to encompass the views of two of my work colleagues, Adrian Woodhouse and Steve Ellwood from the BCA programme. I developed seven structured interview questions (Appendix 2). For this focus group I approached the two colleagues personally, to ask if they would be interested in taking part in my WBR project. This was because both have substantial practical experience and knowledge of PBL and teaching strategies in a hospitality context e.g. culinary arts. The invites were emailed out by the research administrator to confirm participation, and information and consent forms were attached for consideration and completion. This not only widened the research audience perspective but gave me the opportunity to look for evidence of success and/or challenges of the PBL strategies already in use in contexts similar to the field of study. The focus group meeting was audio-recorded and then transcribed. I analysed the transcription looking for themes and patterns. The discussion started with the structured welcome and questions 1-4, then it was adjusted to 'go with the flow' of the discussion and questions 5, 6 and 7 were grouped together. As additional questions came up, I asked if I could add them and both agreed.

This evaluation, together with the data from the review phase, was used to reflect on my professional practice and determine any potential need for change, for example: what has changed in my professional practice? Do students see the impact on their capabilities once graduated? What did they highlight as successes and what were the challenges? What is the evidence that learners developed work ready capabilities? The intention is to identify what type of changes were recommended and look for opportunities for improvement to the programme.

Results

The findings from the WBR project are organised under the three phases of data collection.
Phase 1: Explore - an exploration of contemporary PBL approaches and literature.
Phase 2: Review – a general review of the programme.
Phase 3: Evaluate - an evaluation of the effectiveness of the PBL approach.

Phase 1: Explore

This includes a summary of my explorations of PBL innovations, locally, nationally and internationally. The literature review provided a global look at PBL approaches and includes information about learner work-ready capabilities.

Phase 2: Review

Findings and main themes from four components are presented, in a narrative, in the following order.

- Student Evaluations – data analysis for my research project of student feedback from four Otago Polytechnic surveys: First Impressions, Student Reflection on a Course, Student Opinion Survey and Student Reflection on Programme.
- D4LS Review Report – the outcomes of an evaluation of the re-design of the programme and first delivery.
- Work experience (host organisations) - feedback about students from their supervisors and/or contact person.
- Lecturer self-evaluation and reflection – a summary of the key observations and reflections while teaching PBL.

Student evaluations

When reviewing the formal Otago Polytechnic student evaluations, I wanted to know how relevant the teaching and learning strategies in 2017 and 2018 were for guiding students' learning and what they considered as the successes and challenges. This review gave me data and information required to look for opportunities for improvement and plan possible new ways to improve student learning.

From the two cohorts - 23 students, the average return rate was 48% across the four student evaluations, I was reasonably happy with this. Although it only gave me a small sample to view, I was still able to look for data and information in regards to successes and challenges from the students' point of view. This enabled me to quickly understand the meaning and summarise the findings. In regards to the relevance that PBL has for guiding students' learning I struggled to find data or information that gave me insight.

This was because the student evaluations were not specific to my WBR project and this question was not asked. Therefore this area of my research question was not able to be adequately addressed.

I was able to ask WBR specific questions in the student survey during phase 3 and this made up for the shortcoming in phase 2. This was an important part of my professional development reflection, indicating how far my understanding of research has come and I come back to this in the reflection and critical commentary section. However, I was able to highlight here my findings in regards to successes and challenges.

What am I seeing from the student evaluations regarding successes?

Some of the successes for students were around enjoying both the written and the applied / practical side of the courses and being able to put what was learnt in the classroom into a real-world environment. Quotes that illustrate this include:

"I have really enjoyed both the practical and written side of the course (programme) as it allows you to put what you learn in the classroom into real practice."

"I like the practical aspects of the finance course, I enjoyed putting what I learnt in place in a practical environment."

"That it was mostly practical and not just all theory based, as you don't really learn when you just sit in a classroom all the time."

Students also expressed that they felt able to better their skills and gaining valuable insight into the industry. The following quote illustrates this sentiment:

"Management in action was probably my favourite part of the course (programme) because it enabled me to implement the skills and knowledge I have gained over the year and give me valuable insight into the industry and the stresses and pressures that come with it."

What am I seeing from the student evaluations regarding challenges?

Some of the challenges for students were around workload. They wanted more time between assessments, especially when courses run side-by-side, as represented by this quote: "Having more time between the assessments if finance and marketing run side by side."

Some also wanted less time in the work experience placement, as expressed in this quote: "I personally think 90 hours (of the work experience placement) is slightly extravagant, I think half of that would be satisfactory."

D4LS review report

From the D4LS review report (Portfolio Appendix 6), I wanted to review if we as a group had developed PBL strategies that guided students' learning and also what the D4LS team perceived were the successes and challenges of the 2017 programme development and delivery. The phases of the design process used by the D4LS project are shown in Figure 5.

Figure 5: Phases of the D4LS process. (Otago Polytechnic, 2017).

What am I seeing from the D4LS review report regarding PBL strategies that guided students learning?

Some of the strategies that were developed and delivered in 2017 were around guiding students as commented by a D4LS report author:

"Clear vision of what the programme was aiming to achieve e.g. Awareness, Investigation, Application, Understanding; good opportunities for Reflection-in-Action as well as Reflection-on-Action."

"Introducing the idea of a Design Workbook to learners right at the start of the programme worked very well; it encouraged students to be creative, and referencing was used a lot more than in previous courses. Good to see that this continued throughout the programme."

"Greater flexibility in the programme (e.g. one learner joined the programme late; still able to catch up on content during semester 1, with support from academic staff."

What am I seeing from the D4LS review report successes?

Some of the successes are reflected in the following quotes.

"The applied nature of the programme was extremely successful (as reflected in student feedback). Learners could see that everything was inter-connected."

"Learning outcomes were "absolutely achieved"; the assessments made sense to the students and were in context; assessments clearly matched up to learning outcomes."

"Big success in terms of the engagement of the learners and their personal development, not just technical skills, but also in learning through blended delivery using on-line technologies."

What am I seeing from the D4LS review report regarding challenges?

Some of the challenges are reflected in the following quotes:

"Workload of the Programme Lead during the design and development process."

"Assessments in different courses overlapping; Programme Lead will have to look at this and see how best it can be solved."

"Team work often challenging e.g. some learners being carried by others."

The challenge for me personally was the development workload, on the positive side however, I was given absolute autonomy to develop this new programme and it gives me enormous satisfaction to see the success of the learners and the programme's 100% success rate.

Work experience feedback

From the work experience host organisations I wanted to know if students were showing evidence of some of the work-ready capabilities that the organisation was looking for in an employee and what the successes and challenges were.

What am I seeing from the feedback regarding work-ready capabilities?

Some of the evidence that students show evidence of developing work-ready capabilities are reflected in the following quotes:

"I have no doubt that she will pick up the technical skills required in hospitality very quickly, but may need to work on her soft skills such as verbal communication, leadership and self-confidence before she is fully ready to work in a customer-facing position."

"Positive attitude towards workmates and customers."

"Sets a good example for her colleagues and provides efficient and professional customer service."

"She has the personality to get on with all nationalities that she comes in contact with."

What am I seeing from the feedback regarding successes?

Some of the successes are reflected in the following quotes:

"Very goal-focused and this should stand her in good stead for her hospitality career."

"Has great understanding of the franchise and in-store rules, he is valuable member of the team and adds his own touch of humour to the workplace environment."

"Has the knowledge and discipline to go far in life with whatever he chooses for his future."

What am I seeing from the feedback regarding challenges?

Some of the challenges are reflected in the following quotes:

"Seeking refuge in her cell phone, or comfort groups within the organisation. Whilst natural for a person of her age, it did detract from her ability to fully engage with the operation and other staff around her."

"Trust in her ability to manage the area she is in charge of."

"Applying learning on a more industrial level. Scaling up quantities and speed to suit environment."

Lecturer Self-evaluation

From my own reflection of the review phase I wanted to know how relevant the PBL strategies developed and delivered in 2017 and 2018 were in guiding students' learning, what evidence there was that they developed work-ready capabilities and what the successes and challenges were. This self-evaluation was prepared at the end of 2018 after the first two deliveries and based on: 1) student evaluation, 2) D4LS review report and 3) work experience feedback.

Self-evaluation based on student evaluations

Based on the positive feedback received about the enjoyment of the relevant "real-world" PBL strategies and how the students were able to put classroom learning e.g. the finance course, into an authentic learning environment. This enabled them to gain valuable insight into the hospitality industry, with "stresses and pressures" that come with this learning and teaching approach. This means to me that applied, authentic learning is more effective than just classroom theory as expressed in the student evaluation.

Constructive feedback

I base my self-reflection on the feedback received that, "more time between assessments", is required, especially when courses such as the marketing and finance courses run side by side.

My conclusion was to review and amend the assessment mapping accordingly and spread the assessment due dates to allow for more time for students to gather information and reflect on the successes and opportunity for improvements.

The second constructive feedback was that the work experience placement of five weeks was viewed as "slightly extravagant" and "half would be satisfactory". Here I reviewed the host organisations' feedback, from their perspective, this was viewed as a good timeframe and the three days of 6-hours work seemed ideal for the hospitality industry during August. This was because most casual and part-time staff would not get more than six hours work per day, so this was ideal to integrate the intern using a

"buddy system". They further commented that a five-week duration makes it worth their while to invest time for on the job training, which a shorter timeframe may not allow to spend too long on this. I made the call to go with the host organisation with this as not just I but future students rely on their support for future work experience placement and Dunedin is only a small market place with few suitable host organisations in each category.

From here my self-evaluation was based on students' projects and my teaching and learning strategy that guided students' learning, evidence of skill development and giving the opportunity to implement this in a practical scenario. I will conclude with how I believe the PBL approach gave the students valuable insight into the real-world situation, making it relevant, with some examples.

The Communication Game – 'Carousel'

This game challenges students to communicate with their teammates on the fly. It tests their knowledge of food preparation, as well as how well they communicate steps in the preparation process with their peers. But also applies capabilities, how well they create, collaborate and critically reflect.

Each team begins with their recipe selection, recipe form extension and calculation followed by the work station set-up 'mise en place', then the game starts with the preparation and baking of their product. Every so often, on the lecturer's indication, there is a shift change and each team must rotate to the neighbouring team's section/station. One team member stayed behind to brief the new team on progress of the task, there is a 30 second maximum briefing allowed. The rotation could be more than once but in any case should end with the original teams finishing their task that they started. At the end of the game student groups have the opportunity to share their learning and product and indicate the cost and selling price suggested (Figure 6). This communication game allowed students to transfer knowledge and skills gained to the courses that follow and the capstone assessment during the station rotation learning in the management in action course (Figure 7). This communication game is also delivered across different departments including BCA, Level 4 cookery and foundation studies.

Figure 6: Carousel recipe costing game. (2018).

Week													
43 22-26 October	Ako espresso - Management Group Focaccia 7AM-2PM					Manaaki International Dinners 2PM-9PM				Stores Operation 8AM-1PM			
Train the trainer session – group Focaccia	Mon	Tues	Wed	Thu	Fri	Tues	Wed	Thu	Fri	Mon	Tues	Wed	Thu
	Public Holiday	8am-12noon and 1-5pm Ella Tom Eden Danica Tim Joe	Ella Tom Eden Danica Tim Joe	Ella Tom Eden Danica Tim Joe	Ella Tom Eden Danica Tim Joe	N/A	Dan Karl	Gemma Juan	Manila Casey	N/A	Gemma Casey	N/A	N/A
44 29 Oct-2 Nov	Food Truck – Management Group Ciabatta 7AM-2PM					Manaaki International Dinners 2PM-9PM				Stores Operation 8AM-1PM			
Train the trainer session – group Ciabatta	Mon	Tues	Wed	Thu	Fri	Tues	Wed	Thu	Fri	Mon	Tues	Wed	Thu
	(1-5PM) Dan Karl Gemma Juan Manila Casey	(1-5PM) Dan Karl Gemma Juan Manila Casey	Dan Karl Gemma Juan Manila Casey	Dan Karl Gemma Juan Manila Casey	Dan Karl Gemma Juan Manila Casey	N/A	Danica Tom	Eden Tim	Ella Joe	Danica Joe	Eden Tim	N/A	N/A
45 5-9 November	Food Truck or Ako espresso – 7AM-2PM					Manaaki International Dinners 2PM-9PM				Stores Operation 8AM-1PM			
	N/A					N/A				Mon	Tues	Wed	Thu
										Dan Karl	Manila Juan	Ella Tom	Re-sit

Figure 7: Station Rotation Roster. (Author, 2018).

The second example was field trips. We use field trips to the Market Kitchen Café, Southern Cross Hotel (site visit and familiarisation tour), Gilberts Fine Foods (applied hands on field trip, Figure 8), Forsyth Barr Stadium and Function Centre. Guest speakers and assessors gave the students additional opportunities to explore relevant hospitality operations and gain valuable feedback from industry practitioners e.g. Café owners and Coffee Roasters, Chefs, Hotel Management Executives, and a Solicitor with expertise on employment law (Figure 9). These are good examples of how relevant the teaching and learning strategies were during this first two years of delivery because of the real-world examples from a variety of hospitality operations.

Figure 8: Student field trips. (2017).

Figure 9: Introduction to Employment Law. (Employers' Association, 2017).

Here the students are able to put what was learnt in the classroom into a real-world environment evident with the superb promotional material created by the student

groups through flyers, digital screens, mailing list and Tūhono (Otago Polytechnic Intranet Tūhono) announcements.

Figure 10: Digital screen promotions. (Otago Polytechnic, 2017, 2018).

Another example is the concept development and promotion for pop-up projects at Ako Espresso and Manaaki Restaurant (Figure 10), two of our food and beverage facilities. Again, we bring the learning from the classroom into a real-world environment with paying customers. Students then plan, develop food and beverage products (Figure 11) and service styles and implement these group projects in our Manaaki F&B facilities.

Figure 11: Products developed for pop-up food experiences. (2017).

This self-evaluation is based on the use of technology and how I embraced this with a blended delivery model. This was throughout the NZDHM programme, using 'on-line activities' on Moodle and the Class Notebook (Figure 12) as a 'collaborative space' for groups to work on planning their projects, and during implementation for the documentation requirements. Both these platforms were used for assessment submissions like 'Turn-it-in' and assessment 'DropBox™'. I use Moodle, Facebook and group emails as a preferred mode of 'out of class' communication.
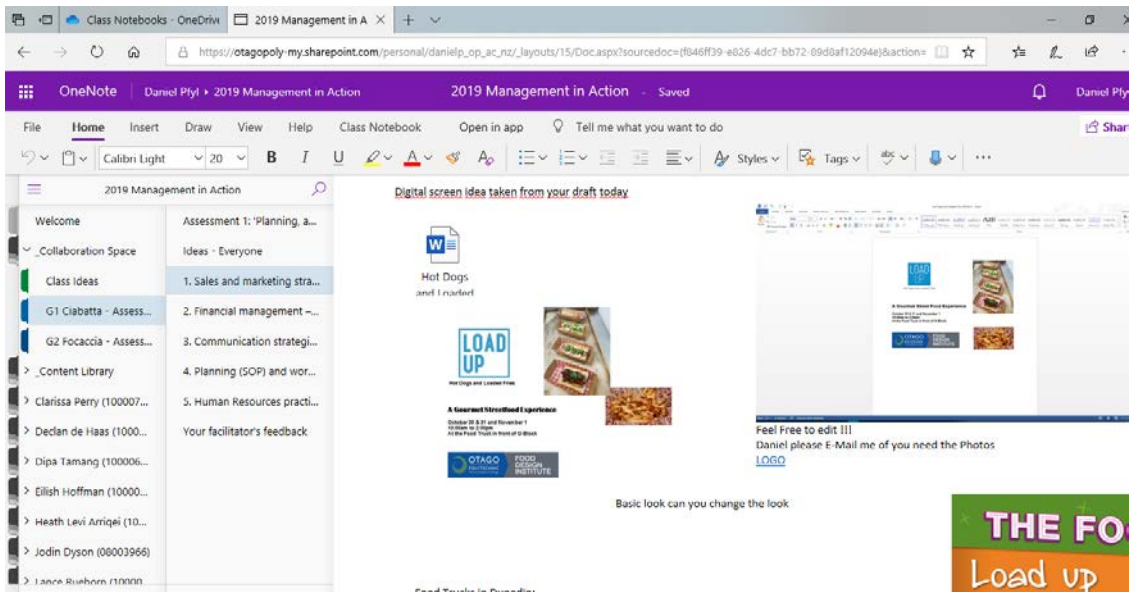
Figure 12: Class Notebook set up as collaborative and individual assessment space. (Author, 2018).

Here I based my self-evaluation on the market oriented business model I applied during pop-up experiences in our Manaaki F&B facilities. This linked very well with my own strategic model of F&B management (Figure 2) and allows for organisational requirements (benchmarks) e.g. material cost of 38% of sales to be adhered to. Students used this system to cost their recipes and F&B offerings to establish a pricing strategy that is 'real-world pricing' and still keeping the end-users' spending power in consideration.

For this we use MenuCoster (MenuCoster, 2019), an on-line recipe costing which was then used for budget forecasting of the pop-up experiences. This is a system used in many of New Zealand's leading hotels and restaurant chains and if it is not, it is usually a system very much like it (Figure 13). This gives the students the opportunity to work in a system directly applicable to the industry and adds to their financial literacy, see Figure 14 for a budget example and industry benchmark. This facilitated understanding of industry specific financials and control systems.
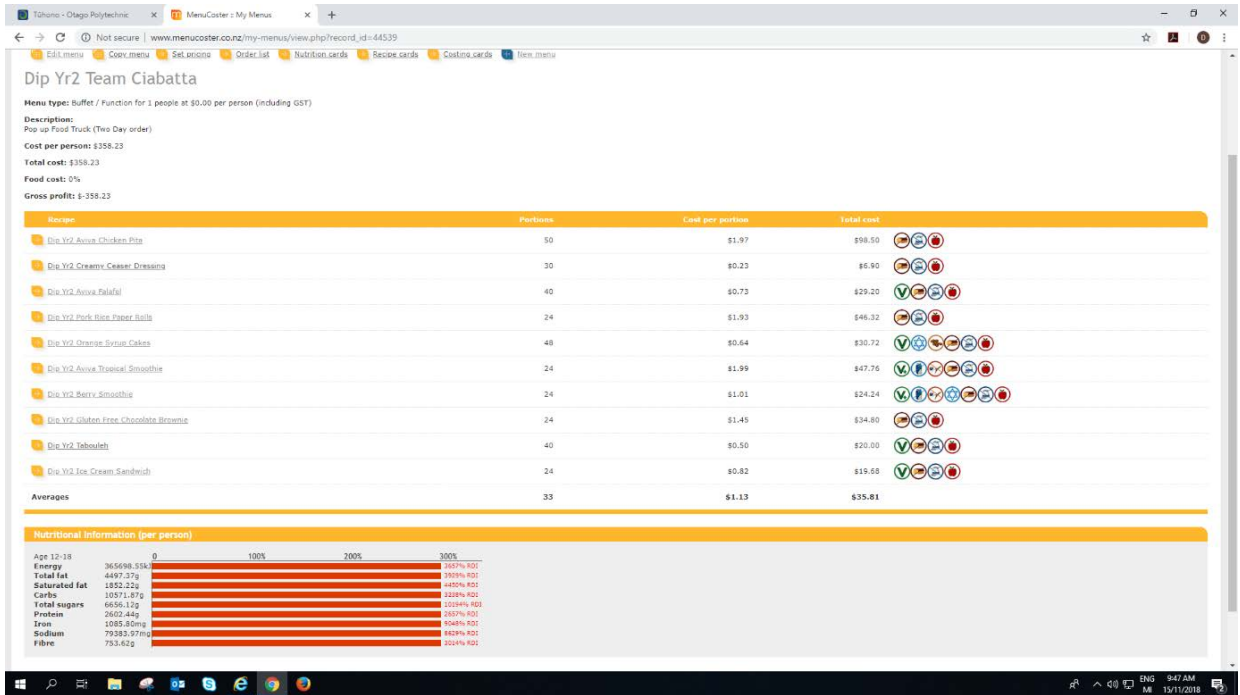
Figure 13: MenuCoster - author's page. (Author, 2018).
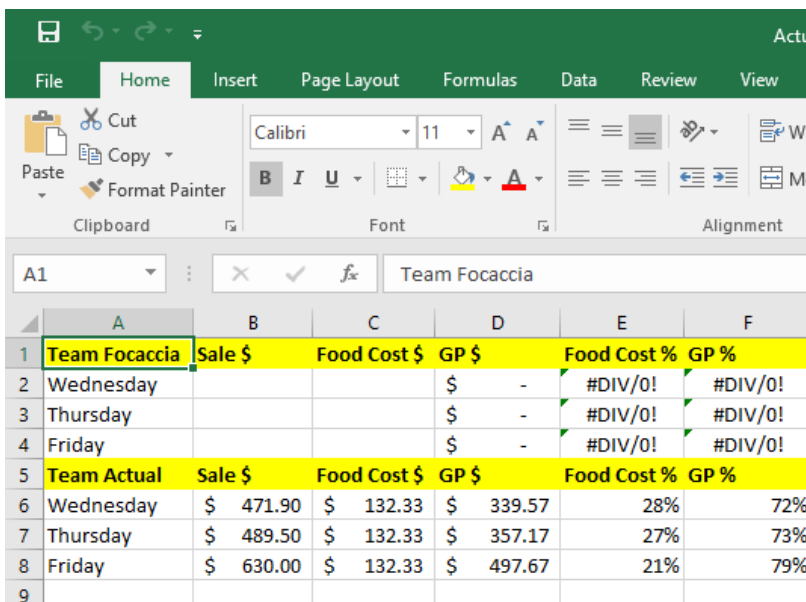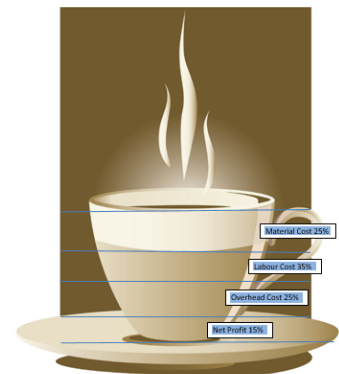
Figure 14: Budget example and industry benchmark of the cost of a cup of coffee. (Author, 2018).

Here the self-evaluation is based on their implementation of the 'train the trainer' sessions (Figure 15), students use their mobile devices, where students film each other's training session and then post it together with the training manual on the Class Notebook collaborative space. This developed technology skills with a device that students have easily available and incorporated video editing skills prior to uploading the training video to the Class Notebook.

Figure 15: Train the Trainer session. (2018).

For the peer feedback I use the TasteIT app, (TasteIT, 2019) developed here at the FDI by Steve Ellwood, during prototyping and dish development stage, but also as a peer-feedback tool during the management in action course. This has been used successfully, and not only gives real-time feedback but also ensures anonymity during the processes and encourages participation.

Self-evaluation based on the D4LS review report

During the D4LS process we aligned the graduate profile of the new qualification, the course learning outcomes, teaching methods, learning activities and the assessment plan. This was designed to align or match with each other at the appropriate cognitive level, this was commented on as "absolutely achieved".

The approach considered the transferability and stair casing of learning within and across the programme. For example in the new programme I teach the courses in a logical sequence, side-by-side and in context so that the knowledge gained by learners in the classroom is then applied in a real-life scenario during pop-up experiences in our Technique Training Restaurant (now Manaaki) and Ako Espresso Café and new since 2018, the Food Truck. Figure 16 shows how the programme is organised.
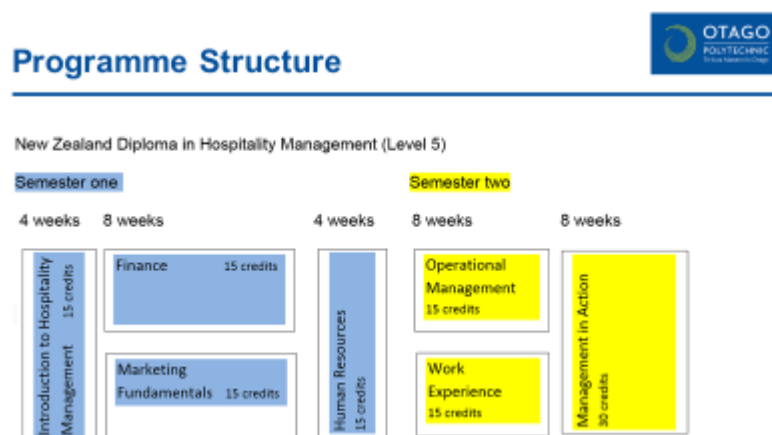
Figure 16: NZ Diploma in Hospitality Management (Level 5) programme structure. (Author, 2018).

What's one key insight I have from participating in D4LS?

For me it was the development of a blended delivery model using the 4Cs of the 21st century (Vaillancourt, 2014) learning plus digital competency and the new Moodle and Class Notebook platform developed throughout this process with on-line activities, collaboration, creation, communication and critical thinking in the forefront. It is important to note that students who did not engage with Moodle did not perform as well overall.

Possibly the biggest personal learning for me was the realisation that I can escape from old ideas, embrace new learning and teaching pedagogy and apply these across all my teaching responsibilities.

Also, I realised that I know my subject, but I am not the only one who has knowledge to share, this was evident during the D4LS collaborative development process, the roll-out of the new programme and includes work colleagues and learners alike.

What are the key takeaways that I got through the process?

Being able to strip back, from the old teaching and keep what is beneficial to the learners, but also getting the views from the outside-in with critical questions being asked, "why we are doing things the way we do" (or I do) in the learning and teaching environment at the Food Design Institute, especially from members of the D4LS team who were constantly asking and probing. Reflecting and evaluating the pedagogical philosophy of mine and developing a new student-centred blended delivery model. Developing on-line content and activities with the assistance and support of the IT specialist of the same team.

The development emphasis was on PBL strategies, lecture less and that I needed to facilitate more. I use my subject matter experience to achieve comprehension and encourage the development of soft skills like collaboration, teamwork and reflective practice. There is an emphasis for the assessments to provide evidence of meeting learning outcomes and the graduate profile, additionally the assessment rubrics have been developed and aligned.

Self-evaluation based on the work experience feedback

Feedback was collected from supervisors from the host organisations, and/or contact person regarding the five-week work experience. This feedback was very positive about the structure and duration of the placement, they felt that the five weeks and three days of six hours each was ideal for the time of the year and well worth putting in the effort for on the job training. The six hours per shift was easy to schedule and in line with most part time staff hours in industry.

An indication of the importance of work-ready capabilities emerged in comments such as "positive attitude with passion and drive", "confidence", "pride and

approachability". These personal attributes are often referred to as capabilities that the employers expect their employees to demonstrate.

Often students from the NZDHM gain part time employment after the work experience placement with the host organisation.

Students demonstrating the work ethic-capability was illustrated in comments such as: "works well under pressure". Capability for collaboration was evident in comments such as "helps others", "teamwork", and "good example to others". Our students are seen by the host organisations to be pro-active with initiative, adaptability and curiosity and this indicates capabilities such as being self-directed, having creativity in problem solving, critically reflecting on the environment, being able to adapt. They applied their learning using their ability and standards with attention to detail, good communication and they retained the information learnt. These are capabilities that the host organisations view as important to them, in their context.

Regarding the question of being work-ready, as considered by their supervisor, 10 of the 11 students in the 2018 cohort were considered to be work-ready by mid-year. The question asked of supervisors was: in your view, is the intern work-ready? This was part of the scheduled visits to the host organisations. The visits occur in August each year, in week four of the work experience placement. What work-ready means is subjective and entirely the supervisor's point of view however this positive response indicates that the students have developed skills wanted by the host organisation.

Discussion of Implemented Changes

In response to information explored in Phase 1 and the Review in Phase 2, several changes were needed. These changes were required 'on the fly' during the 2017 and 2018 delivery, in other words changes I have been implementing and changes to my professional practice which are described here. This came from my inquiry question whether the educational innovation, PBL strategies, is working satisfactorily and as intended i.e. measures the effectiveness of the approach.

For students to understand the course outlines, wording had to be student friendly, with clear assessment instructions. They had to be accurate and relevant to student learning and requirements to align with the programme document. This was mostly the case and where adjustments were necessary they were made and presented through our pre-moderation process and assessment committee approval process. I implemented regular checkpoints, individually and in groups as appropriate and checkpoint requirement lists to go with that so students can clearly see what the requirements are and take notes for opportunities for improvements to their project. This approach formed the formative assessment and gave students a clear indication where they are at and what improvements are required to progress to the summative assessment. Here I developed the on-line in depth feedback process through Moodle, a positive reception of these feedback mechanisms was received from the students.

Some other opportunities for improvement were considered, sometimes changes were made, other times a more 'wait and see' approach was adopted to not have a 'knee-jerk' reaction to a problem that may not exist and which requires further information or another year of delivery to make an informed decision. For this I have summarised examples grouped into the seven courses of the NZDHM programme.

One of the main overarching changes was guided from the literature review as it became clear early on that some sort of SRL is required for PBL to be effective. I decided to give students an input during the design process and autonomy over their individual and/or group projects. This was viewed to be an important part of gaining student buy-in and increased motivation. This linked very well with my own management philosophy from my industry experience spanning 24 years, the inverted pyramid (Figure 3) and I explored this further. Also, my fading-out of the amount of direction was important as the programme progressed, how I could progressively move from a teacher (design brief and model of professional practices) to a facilitator of the students' own projects. The importance of embedded research activities (information and data gathering) linked with their projects and my facilitation, with less direction, of these activities is another area highlighted through the literature review and I have explored this in this phase.

Introduction to Hospitality Management

Here I included the on-line research activity for students to research the meaning of Manaakitanga in New Zealand, take notes and bring to class what they understand this means and ask themselves why Manaakitanga is unique to New Zealand and how this fits into hospitality that we provide at Otago Polytechnic. This was followed by a class discussion and the knowledge gained applied during the welcome lunch for our Food and Beverage Level 3 students in week one of the programme. This set the theme of cultural awareness for the year and was continued throughout their pop-up experiences.

In the shift-over game that stems from the 'Carousel Game' used in the applied recipe calculation and selling price session, I made changes that one student per group stays back in the allocated section, not just for a short briefing, during the Tapas lunch experience in Manaaki. This assisted better communication and leadership by the student and the incoming team. Both are learning outcomes of this course.

Marketing Fundamentals and Finance

Review financial tool/template used for costing e.g. the MenuCoster (MenuCoster, 2019) on-line system but also the budget (profit and loss statement template). I asked myself if we need wages, overheads and net profit. Is it relevant?

How can this be authentically implemented by the students during their 'one day of businesses in our commercial operations?' I decided to apply logic and keep the budget

template as an Excel spreadsheet with the wages and overhead rows, but ask students to keep the wage row empty. For the overheads row I gave them a flat fee to cover electricity and packaging material. This made it relevant and in context with our operation. I insisted however on the 38% material cost benchmark as the food and beverage target in their budget forecast. This was slightly higher than industry average of 30% but more applicable to approach pricing for our target audience. For the marketing and finance issue of 'more time for assessment, especially when courses run side by side', I reviewed and amended the assessment mapping accordingly and spread the assessment due dates to allow for more time for students to gather information and reflect on the successes and opportunity for improvements.

Work Experience and Operational Management

Work experience is mostly a timeframe issue; do we stay with five weeks? The industry host organisations felt it to be a good timeframe and worth investing the time in the intern and the scheduling of 18 hours over three days was realistic and achievable.

An idea was to reschedule the Operational Management class to free up Monday (or more on-line content), it was an excessive workload with balancing work, work experience and Operational Management. Doing this I would be able to bring it to an acceptable workload for the students. In the meantime I asked students to keep a shift/hour's log for the work placement report to ensure there is no burn-out.

I improved the compare and contrast and strategic management model template for operational management to facilitate strategic modelling in their assessment.

Management in Action

I am still looking into the question whether I need referencing on the rubric for the critical reflection assessment or not. Could this be replaced by authentic learning to reward students who put in the effort and have excellent attendance? This is on the back burner at the moment.

Here I have not included a leadership team, say two per day, on the rotational roster. I viewed this as a good strategy to give students autonomy and to demonstrate teamwork during the planning and implementation phase of their pop-up projects and an excellent reflective practice opportunity, both in-action and on-action. As I fade out my amount of direction, in the pop-up project brief, this was an opportunity for the group members to allocate tasks and leadership responsibilities collaboratively, giving more autonomy and self-regulated learning to the student. I also believe this is an excellent opportunity for the reflective practice for this course assessment as well as peer feedback to individual group members.

The OneNote Class Notebook as a collaborative space for the groups and student assessment was continued and new Class Notebooks created for each year's group.

I have improved the student briefing of their learning outcomes, but also the lecturing and technicians' staff briefing on 'how to best facilitate' the learning with stores and the Manaaki restaurant. This station rotation learning and rotational roster has been very successful and is continued for this course's authentic learning experience.

Phase 3: Evaluate

For the evaluation, data was collected from 11 students who responded to a survey and also from two colleagues in the BCA programme who were interviewed during a focus group meeting.

Both quantitative and qualitative data was collected using the student survey. Questions asked about relevance of the PBL strategies for guiding students' learning and if this approach helped them to develop their work-ready capabilities. They were also asked questions about their successes and challenges. Only qualitative data was obtained from the focus group interview.

Student Survey

The survey responses are from the 2017 and 2018 cohorts' graduates of the NZDHM programme. The quantitative data collected using Likert-type scale has been rounded off for ease of use. This is shown in Figure 17.

The project-based learning and teaching strategies applied in Manaaki, Ako espresso and The Food Truck were realistic work experiences that prepared me for project work.

Answered: 11   Skipped: 0
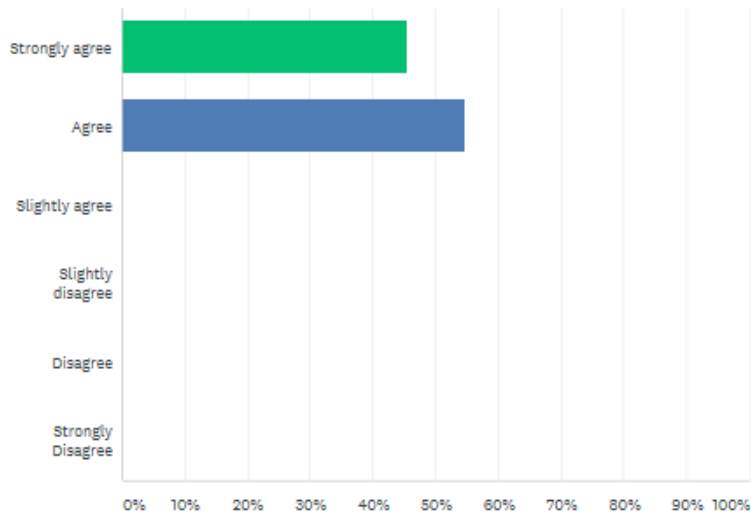
ANSWER CHOICES	RESPONSES	
Strongly agree	45.45%	5
Agree	54.55%	6
Slightly agree	0.00%	0
Slightly disagree	0.00%	0
Disagree	0.00%	0
Strongly Disagree	0.00%	0
TOTAL		11

Comments (6)

Figure 17: Question One, Student Survey. (Author, 2018).

With this question I wanted to investigate if the PBL strategies were indeed a realistic work experience to prepare the students for project work.

The quantitative data shows the graduates either agree 64%, or strongly agree 36%.

The project-based learning and teaching strategies used were relevant for developing my understanding of management practices used in the Hospitality industry.

Answered: 11   Skipped: 0
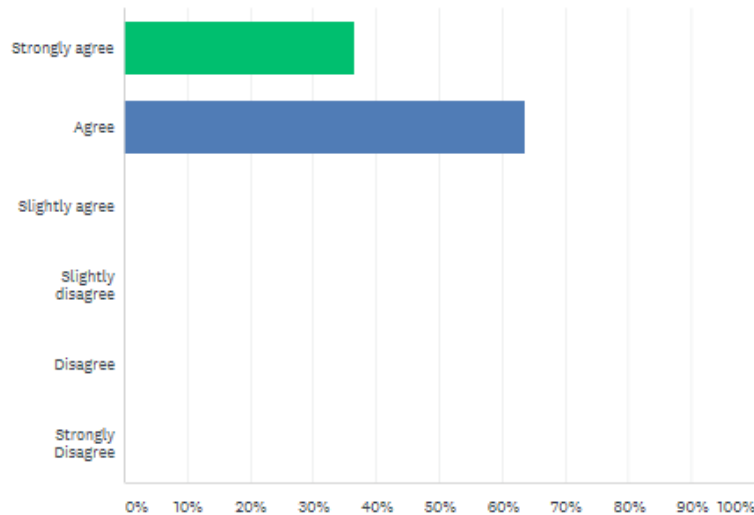
ANSWER CHOICES	RESPONSES	
Strongly agree	36.36%	4
Agree	63.64%	7
Slightly agree	0.00%	0
Slightly disagree	0.00%	0
Disagree	0.00%	0
Strongly Disagree	0.00%	0
TOTAL		11

Comments (5)

Figure 18: Question Two, Student Survey. (Author, 2018).

With Question Two (Figure 18), I wanted to investigate if the PBL strategies were relevant for developing understanding of management practices such as Finance, Marketing etc.

The quantitative data shows the graduates either agreed 64%, or strongly agreed 36%.

Bringing a hospitality business model into a real-life scenario such as Manaaki, Ako espresso and The Food Truck is a great opportunity to apply, reflect and learn from management practices.

Answered: 11   Skipped: 0
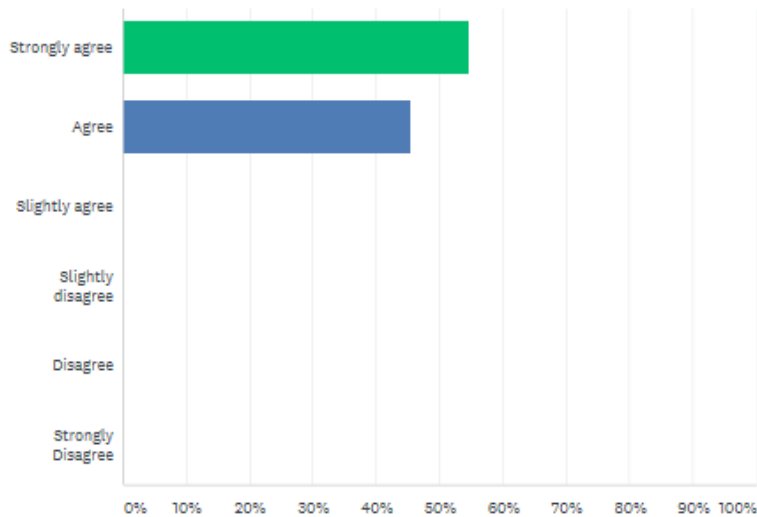
ANSWER CHOICES	RESPONSES	
Strongly agree	54.55%	6
Agree	45.45%	5
Slightly agree	0.00%	0
Slightly disagree	0.00%	0
Disagree	0.00%	0
Strongly Disagree	0.00%	0
TOTAL		11

Comments (5)

Figure 19: Question Three, Student Survey. (Author, 2018).

With this question (Figure 19) I wanted to investigate if bringing a business model into the real-life scenario is a great opportunity to apply, reflect and learn from management practices.

The quantitative result shows that graduates either agreed 44%, or strongly agreed 56%.

During the year I have developed work-ready capabilities expected by our Hospitality industry. Work-ready capabilities are: Critical Thinker, Communicator, Collaborator (works in teams) Creator (thinks creatively) and Demonstrates Digital Competency.

Answered: 11   Skipped: 0
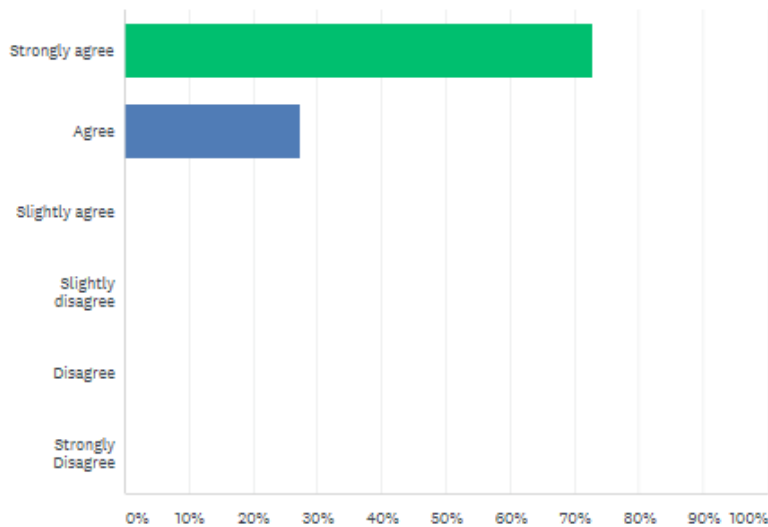
ANSWER CHOICES	RESPONSES	
Strongly agree	72.73%	8
Agree	27.27%	3
Slightly agree	0.00%	0
Slightly disagree	0.00%	0
Disagree	0.00%	0
Strongly Disagree	0.00%	0
TOTAL		11

Comments (6)

Figure 20: Question Four, Student Survey. (Author, 2018).

With this question (Figure 20) I wanted to investigate if, during the year, students have developed work-ready capabilities expected by the hospitality industry.

The quantitative result shows that graduates either agreed 27%, or strongly agreed 73%.

Project based learning helped me to understand management practices.

Answered: 11   Skipped: 0
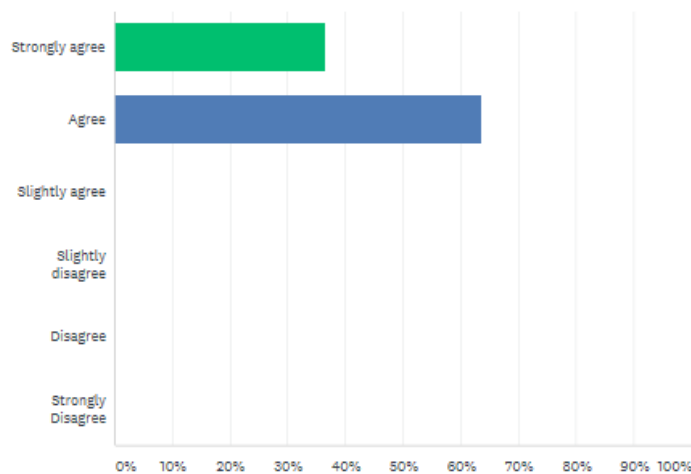
ANSWER CHOICES	RESPONSES	
Strongly agree	36.36%	4
Agree	63.64%	7
Slightly agree	0.00%	0
Slightly disagree	0.00%	0
Disagree	0.00%	0
Strongly Disagree	0.00%	0
TOTAL		11

Comments (6)

Figure 21: Question Five, Student Survey. (Author, 2018).

With Question Five (Figure 21), I wanted to investigate if project based learning help the student to understand management practices.

The quantitative result shows that graduates either agreed 64%, or strongly agreed 36%.

Although a six-point Likert-type scale was used in the Student Survey, the eleven students all selected Agree or Strongly Agree for every question, see Table 2 with exact figures. This indicated that overall they were very positive about the use of project-based learning and teaching strategies used in the course.

Notably, 72.73% students strongly believed they had developed work-ready capabilities. These included: critical thinking, communication, collaboration (working in teams), creative thinking and digital competency. Another strength from the students' perspective was the use of a hospitality business model within the real-life scenarios of their work at Manaaki, Ako Expresso and the Food Truck. Over 54% strongly agreed this was a great opportunity to apply, reflect and learn from management practices.

Table 2: Quantitative data summary

Question	% Agree	% Strongly Agree
1. Project-based learning and teaching strategies were realistic work experiences.	54.55	45.45
2. Project-based learning and teaching strategies were relevant.	63.64	36.36
3. Using a business model in real-life scenarios provided an opportunity to learn.	45.45	54.55
4. Developed work-ready capabilities expected by industry.	27.27	72.73
5. Project-based learning helped understanding of management practices.	63.64	36.36

Several comments associated with each question also indicated that students were positive about their experience.

Each question in the student survey gave an opportunity for feedback via the comment section. I have summarised the feedback from questions 1-5, together with the qualitative information from the last two questions; here I wanted to investigate what graduates felt was the most successful project for their learning and development of work-ready capabilities and what did they feel was the biggest challenge (Table 3).

Table 3: Themes with explanation and illustrative quotes

Themes	Explanation of theme	Reflected in the sample quote
Guiding	Guidance was an emerging theme; to assist, help and support students learning.	*"Before this course, Managing seemed pretty straight forward but using the teachings from Daniel helped me understand more about the hidden gems in the Management sector."*
Relevancy of PBL strategies	Real-world, applied, hands-on teaching and learning approach is relevant.	*"I especially liked the initial focus on how a kitchen is organised and operated, which often managers don't have to think a lot about as it is left to the head chef, however it is a crucial part of the business which requires effective management."* *"These experiences helped the project work because everything came easier with actual*

		experiences to rely back onto instead of using fake scenarios."
		"I felt as though we learnt a wide range of management practices and seen how each would work in a real-life situation and how you could use them effectively."
		"A large amount of management practises is situational, and with so-many variables within the industry it would be extremely difficult to get a good grasp on a range of these skills without a practical component."
Learner Capabilities	Work-ready graduates with 21st century capabilities.	*"The last pop up we did I think really helped me develop my work ready capabilities because I was working with a group of people and had to make sure I was really taking in everything and make sure that I was collaborating with everyone. I learnt that you may not always work with people who think the same as you so I had to make sure I was working alongside them to have the best outcome while also making sure we were taking the most efficient route. Also, in the planning phase, I learnt how to critical think and communicate about certain ideas as we had to find out what would work and what wouldn't."*
Successes	The support from teacher, prepared graduates for work.	*"He (the teacher) also prepared me for the step up that was about to occur within my job."*
		"The food truck experience was definitely the most useful for me. It taught me how to manage as well as prepare food."
		"Doing the hands on projects gave me the knowledge of what to expect working in a job and helped develop skills for work and life."
		"The last project was really helpful because it was like it would be in the industry."

Challenges	Group work and team dynamics.	*"Being thrust into a leadership role was quite challenging as I tend to stick to the background in a team."*
		"To be honest one of the biggest downfalls was the other members of the team. In some ways our varied levels of experience complimented each-other, but at times it made it extremely hard to communicate and collaborate with people that don't have a shared understanding and commitment. But that is just another example of the hospitality industry!"

What am I seeing from the student survey?

The quantitative data was extremely positive, the Likert-type scale results shows all of the questions 1-5, were in the 'agree' or 'strongly agree' scale. This indicated to me that the applied PBL strategies, in our Manaaki F&B facilities, were realistic work experiences to prepare the students for project work. They further suggest that the developed management practices were relevant and students could understand them. Both were backed up by the qualitative data and quotes like "helped me understand the hidden gems in the management sector" and "everything came easier with actual experiences". This also signalled for me that a real-life business model is a great opportunity for students to learn and reflect on management practices, even though being "situational and with so many variables" it is still viewed as being necessary to have a practical component to 'get a good grasp' on management practices and the opportunity for reflective practice to be applied to a real-life scenario. The highest result was in the question asking whether students know if they indeed had developed work-ready capabilities during the year, the qualitative data backs this up by the quote "helped me to step up to what was about to occur within my job". The last question shows that PBL helps students to understand management practices not just in the quantitative data but also with this quote, "it taught me how to manage".

The qualitative information added to the quantitative data showed that graduates could see the applied PBL approach was relevant: "it gave you a real feel," and that it prepared them for project work: "they taught me new skills that I am able to use". There is also a constructive criticism and the notion that "it was an ideal situation with a safety net" and that the situations "don't force you to think on your feet and react to situations that arise in the real workplace". The graduates felt the strategies were relevant "similar to those used in the hospitality industry" and the comment that it is crucial to focus on the kitchen organisation. The graduates also felt that the "teaching helped them understand more about the hidden gems" and "how you could use them

effectively" clearly stating that the PBL strategies were relevant to developing understanding of the management practices and guided students. Further it showed that it was a great idea to give learners the "chance to become a manager" and "seeing if we enjoyed the experience of manager or not". "It helped me understand and learn better" and "I learnt a lot of new things through the real-life scenarios" further highlights that the learner felt the business model in our commercial outlets was a great opportunity.

Challenges were highlighted by the constructive feedback, that teamwork was an issue "little enthusiasm to reflect and implement changes for next day" shows that a business model, 7-8-hours of operation, impedes on the team's ability to reflect clearly and have time for such a reflection; and then look for opportunities for improvement for the next day's operation.

Colleague Focus Group Feedback

Through the focus group meeting with my two colleagues from the BCA team at Otago Polytechnic, I wanted to widen the audience to give me the opportunity to investigate the relevance of PBL strategies used for guiding students' learning from a different programme's lens. At the same time I wanted to look for evidence how their learners in the BCA programme develop work ready capabilities. Work-ready capabilities I wanted to discuss were: Critical Thinker, Communicator, Collaborator (works in teams) Creator (thinks creatively) and Digital Competency.

I was also looking for evidence of success and challenges associated with this PBL and teaching approach by interviewing two experienced practitioners and experts in the field (Table 4). I have worked with both for several years and I respect their views and expertise in this topic.

Table 4: Themes with explanation and illustrative quotes

Themes	Explanation of theme	Reflected in the sample quote
Guiding	Guidance was an emerging theme; to assist, help and support students learning.	*"It is the brief at the start that we usually follow through on. These outlines might be a little bulky at times to ring-fence your learning outcomes."*
	Importance of embedding and integrating management practices such as finance.	*"We don't do enough to embed this through each of the papers."* *"Integration, I think will make it clearer for the student."*

Relevancy of PBL strategies	Real-world, applied, hands-on teaching and learning approach.	"Thinking of how we use PBL and teaching strategies, the programme (BCA) was developed having prototyped this strategies in the level 4 cookery programme and we tested the response to them. They were really well received, so I think we'd already had proof of concept from what was done in those early years."
		"In the second year of the BCA programme, it is the corner stone, PBL is what we do."
		"It is so much richer for the student. There is the reason why you do it, they actually doing it they're not just reading about that, they living and breathing it. That is amazing in itself as a project."
		"Because it is relevant at the time, look up the street and there are three food trucks parked up there. Now we can deliver, we end up placing students in so many cafes, exactly what we do downstairs in Ako espresso, its relevance that matters and we are relevant in what we deliver."
		Real-world pricing; "I am an advocate for it because it models industry professional standards and helps them understand" "It develops financial literacy."
		"So by doing some projects in the industry, real-life experience" "Not just relying on Manaaki, but you bringing it to the workplaces themselves so industry based."
Learner Capabilities	Work-ready	"I guess that you have to be a little bit more of a jack-of-all-trades in a project based learning approach because at some point finance will come back up again so you've got to know a little bit about it, together with your conception side of things for implementation."
		"I think it is also learning these soft skills as well as the technical that make you a professional."
		"Working in a group, that is team, they develop these. How else are you going to develop them? You can't read about it."

Successes		*"There is also more motivation for the student, it all comes down to student motivation through interest."*
		"A PBL and teaching environment, because it's more holistic and because you trying to move it out of a simulated scenario, to what happens in the real world, to be authentic."
		"It is easier to do things just individually, but I think in groups there is deeper learning."
Challenges		*"Group work, they are a curly thing as you know, but life is a group project."*
		"There is a negotiation, so the lecturer needs to be quit focused on what is happening within the project" "Without question there is some self-regulated learning in place, but the lectures still has a key role and especially with clients (industry places), when students have to report back."
		"I think it (PBL) puts more pressure on our technicians in general, store operation, how we manage learning."
		"So these guys (lecturers) have to pull back a little, it is their (learners) projects" "This is more difficult for the teacher but you just have to let them do it, if they make a mess, that's learning."
		"Also thinking of the students, it's more of a balance in study and work, this is a big challenge that come through."

What am I seeing from the colleague focus group feedback?

The information from my two colleagues showed that PBL is what "they do" in the BCA programme. The understanding of what a problem-based and a project-based approach means to them was highlighted by the statement "often problem becomes project-based learning, typically or often they are the same". The notion that problem-based learning becomes project-based learning and that they are often viewed as the same within the BCA programme was important for my own understanding of the characteristics of PBL.

The PBL approach was started during the Level 4 cookery qualification, when the unit standard approach and underpinning knowledge questing testing was still the norm. A bit like with my own NDHM and the approach with the International dinners, this gave the team, Steve and Adrian, the inspiration to develop the BCA programme with a PBL strategy.

The importance to giving reasons for a project to learners in the course outline and design brief is highlighted by *"it shows the reason why they are actually doing it" a*s well as how the lecturer ring-fences the learning outcome of the course and what is required for assessment e.g. who is the client, what do they want, how can we give them what they want whilst meeting organisation's financial requirements. How important it is for student guidance to have lecturing staff with different strengths and speciality knowledge that students can approach and tap in to as they progress through the years of study.

PBL gave meaning to the student and made the learning "much richer" for them. This adds motivation through interest and being involved in the direction of the project. But also how negotiation between all stakeholders is a big part in the set-up of the "rules of the game" and expectations for an applied student project. Relevancy, actually doing it and how this matters in their delivery e.g. Food Truck projects and the example of real-world competition, evident on the streets around the OP campus, which shows how important real-world pricing is, to not undervalue students' products and services provided to the end-user. How the learning environment becomes more holistic as you move it out of the simulated scenario into what is happening in the real-world, this makes it authentic.

Some of the successes that came through were that students need to be involved and have some autonomy in the project design. Embedded technical skills e.g. foundation skills (cookery skills) and management practices (finance) as well as the soft skills are required "as a learner you have to a bit of a jack of all trades" in a PBL approach. Industry involvement in approaches like the Chef's Table for project presentation and assessment in our training kitchen, with the looking from outside-in approach to gain feedback, quality assurance, checking relevancy and stay connected with industry. Projects in industry for industry, where industry practitioners become their client. E.g. an external project such as The Food Truck set up on a Friday night in front of the NewNewNew brewery, being relevant and in context.

Challenges were highlighted as, how can we embed/integrate required skills like financial management practices, in progressive courses of the year two and three BCA programme to enhance student learning. This gives meaning to the student projects in the commercial environment. The difficulty is to balance between teaching the foundation skills that the student must have for industry and meet learning outcomes

(LO), graduate profile outcomes (GPOs) and embedding soft skills required for 21st century graduates.

Real-world pricing strategies and selling the product for price the product deserves is a further challenge we deal with in our F&B facilities. As a lecturer, when to direct and when to step back. How to fade out your amount of direction and become a facilitator rather than a teacher.

Group work and the challenges this brings, but also opportunities to develop soft skills like working in teams, communication and critical reflection. Changes in the role of a lecturer, becoming a life-coach and a role model to students, but also knowing where your limitations are. How we are all different with our strengths in the BCA team. How this is a good thing, "otherwise we would all be vanilla ice cream". Operational challenges such as timetabling when you work with the unknown e.g. industry where opportunities come up during the year. Time demands on technicians in our stores to order ingredients for student projects, which can be massive and adds to their workload.

Discussion

Here I integrated the gathered qualitative and quantitative data and information to interpretation both for their combined strength and to understand the meaning, emerging findings and my own theory. I looked to validate my belief that PBL strategies were an effective teaching and learning approach to guide students' learning and to develop work-ready capabilities for the 21st century.

For this research to have meaning, I have investigated the above belief and for me to understand it, I had to consider my inquiry question and group the feedback into distinctive areas.

I wanted to know if the PBL strategies implemented in 2017 and 2018: 1) were relevant to guide students learning; 2) was there evidence the learners developed work-ready capabilities?, 3) what were the successes? and 4) what were the challenges?

I also wanted to look for opportunities for improvement to the NZDHM programme and identify what type of changes are recommended.

Guidance

In phase 3, Guidance was an emerging theme; to assist, help and support students' learning. Here I was looking if the data and information suggesting how the PBL and teaching approach assists, helps and supports students in the NZDHM programme.

The PBL approach is evident in the NZDHM programme and project design-brief (instructional activities). The reading of Larmer, Mergendollwer & Boss (2015) made an excellent point: not to have instructions too loose, otherwise the product could end up being of low-quality.

I acknowledge that I have a bit of a bias towards a rigid project design brief, this is mostly because of my past experience with my students. Where students tried to run before they could walk, some of the foundation skills were missing and the product quality and service quality suffered because of it. I agreed that if project instructions are too loose the course LO may not be achieved. A bit of fun is necessary to engage students I feel, too rigid however will curb creativity and student motivation. It is clear that it must be their project, not the teacher's, this creates motivation by interest. Or as mentioned in the focus group meeting, it is about letting them do it, "if they make a mess, that's learning".

It highlighted that the student voice gives important data to consider their wants and needs, but also their point of view, and is crucial to listen to in any student centred learning and teaching approach. This was at the forefront of my mind during the D4LS process and the curriculum development. I asked myself how I could use PBL and teaching strategies to guide, assist and support them as individuals and in their group projects. This compares with my approach in the industry as a chef and my inverted pyramid approach to be responsive to my team, so they in turn can be responsive to the customers' needs and wants. I value my students as if they are my customers, therefore listening to them to build an excellent student-teacher relationship is important to me, this builds team culture at the same time and models my professional practice as a culinary practitioner, it is part of my DNA.

The importance of classroom activities; theory, group project development and planning, but then applying learning into a real-life scenario was a clear theme from both the OP student evaluations and student survey.

Flexibility of the lecturer when a student arrives late to the programme and individual learning plans are required to be planned and implemented as well as additional support and one-on-one guidance. This links well with the lecturer availability, which was another important theme raised by students, either in person, on Facebook and/or group chat.

Figure 22 shows how this is working in practice with the Facebook page as the out of class communication tool with class notes like the session's whiteboard photographed and posted either by me or the students, photos from prototyping sessions of dish development and as a general group chat space.

Moodle is used as a more formal communication tool and the Class Notebook as a class and group collaborative space and individual assessment tool.
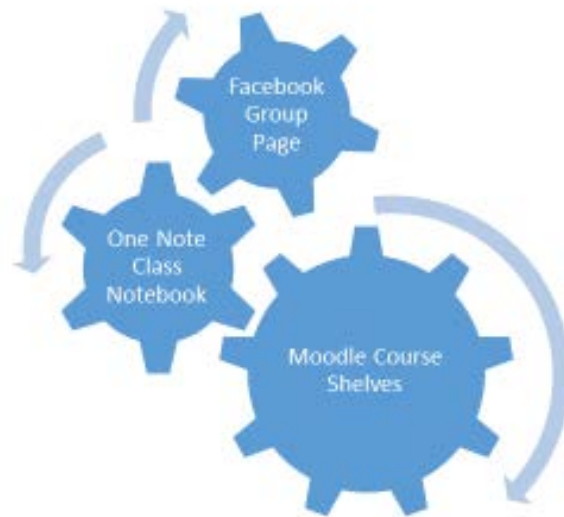
Figure 22: Communication and Collaboration Platforms. (Author, 2018).

The development of reflective practices, through the three different reflective models I used, has been successfully embedded. Students then chose one as their reflective model of choice for the capstone assessment in the management in action course. The most popular one has been the *What-So what-Now what* model, (Driscoll, 2007) as adapted by Otago Polytechnic, mainly due to its simplicity and ease of being understood by the students.

This embedded reflective practice includes using reflection in-action, think on your feet during the pop-up experience and reflection on-action, post pop-up experience and as assessment requirements.

Mentoring and reflecting on students' goal setting, for this I do one-on-one meetings at the start of the year, then again in the middle and at the end of the programme. This gives the student the opportunity to set their own goals, highlight areas of challenges and what assistance and support they require, from me, to overcome these. I include the learning style questionnaire, from the Otago Polytechnic on-line student hub, for the start of the year meeting for students to ascertain their learning style and to use the result as a starting point for our discussion. This ongoing one-on-one enhances motivation to see it through to the end and builds on the student – lecturer relationship, but also enable students to communicate issues they may face and what support they require from me to move forward. Enjoyment of the applied, practical

and WIL is another motivational factor (intrinsic motivation), highlighted and evident as an important aspect of student success. Student feedback over the last two years was that they enjoy the practical and applied aspect of the programme most and the learning gained from this approach brings it all together, classroom learning applied in a practical environment. They gain valuable insight to the industry and it assists their understanding of the topic.

The D4LS review report acknowledges that the new NZDHM programme has a clear vision and structure. The course outlines and assessment instructions are clear, using an appropriate language that students understand and the Moodle platform was set up accordingly (Figure 23).
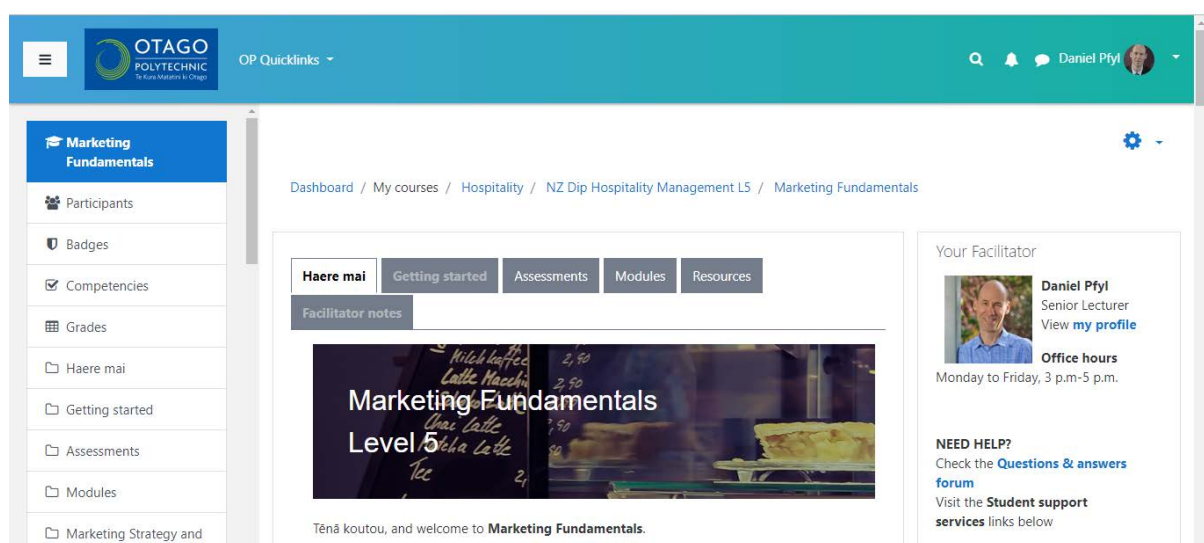
Figure 23: Moodle Marketing Fundamentals Course. (Author, 2018).

The programme has in-context and stair-cased assessments starting with the design workbook assessment example in the introduction to hospitality management course, to the documentation and critical reflection in capstone management in action course. The design workbook assessment was designed not just for ease of use into assessment one, but also to encourage creativity and referencing in a non-threatening way and to continue this practice throughout the year. Supportive assessment templates for all courses are another resource made available to students via the Moodle platform. PBL planning, achieved LO and project briefs use a contemporary pedagogical strategy.

Feedback from the D4LS review report was that the course learning outcomes of the NZDHM programme were 'absolutely achieved'.

The importance of knowing limitations as a lecturer was highlighted during the focus group discussion/meeting e.g. how and when to direct them to another member of the team that has specialist knowledge of the topic, but also how to address the issue of student mental health; knowing how to support distressed students, what support mechanisms are available and how students can access them. But also when to pass

this on to the Student Success team and put the support mechanism in place. This is an important topic in guiding students and I come back to this in the challenges section.

The timetabling of checkpoints and checkpoint checklists to go with this formative assessment approach, both individually and in groups/teams as appropriate, is a crucial part of student guidance as well as the in-depth feedback during the formative and summative assessment process, this enhances student learning and was positively received, according to student feedback.

Fading of the amount of direction and exploring how a lecturer progressively moves from teaching to facilitating was also discussed in the focus group meeting, as being an important part of student guidance. For this purpose I have referred to a model from English & Kitsantas (2013), and designed my own model in context with the NZDHM programme and the progression of the courses and projects. Figure 24 illustrates how I carefully fade out the direction from the first project, the Tapas lunch at Manaaki, via Ako Espresso, to the capstone project at the Food Truck where I teach less and facilitate more.
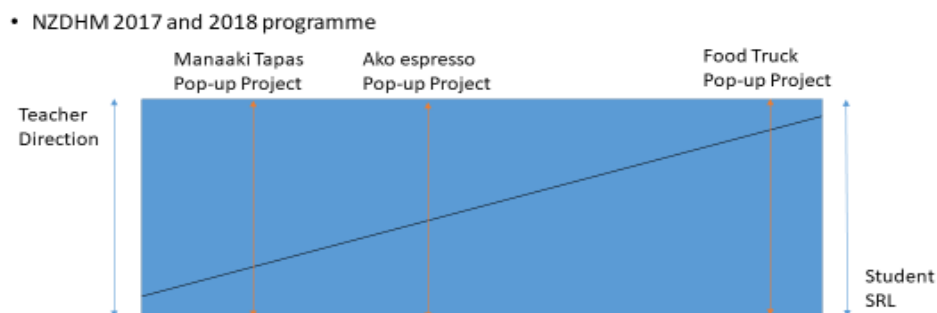
Figure 24: Reducing the amount of lecturer direction in a PBL and teaching approach. Adapted from English & Kitsantas. (2013).

Here the evidence has been clear over the past two years, the student owns the project. I can fade out the guidance and move from a teacher to a facilitator. Are things perfect, no of course not, but excellence in the pop-up experience is achieved. There is also clear evidence how the work-ready capabilities, the 4 C's + 1, are embedded.

Relevancy of PBL strategies

Here I looked for examples of what has changed from year to year. Is there a problem for students to see the relevancy of the PBL strategies?

Meeting the LO and GPOs of this programme makes it relevant to students in achieving the qualification, one of their main aims. For the industry it is the relevancy of the technical skills and capabilities we embed in the programme that is getting work-ready

graduates with culinary managing and leadership skills as well as capabilities for the 21st century. This has further been highlighted through the work experience evaluations and meetings where 10 of 11 students were deemed work-ready by the host organisation in 2018, this validation together with the graduate destination tracker (Appendix 9) as evidence, shows that the development, structure and PBL and teaching approach in the applied environment of our commercial outlets is what makes the qualification relevant to them.

Each host organisation is always asked if they would support the work expertise placement again, not one turned this opportunity down. I see this as a validation of what we do here in the NZDHM programme and FDI as a whole. The continuation of the International dinners, the Levels 3 & 4 cookery programmes luncheons at Manaaki and their market days are excellent examples besides the BCA programmes PBL and teaching approach.

For PBL to be authentic it must be practical, "not just classroom" and "no fake scenarios"; this was highlighted by the students. The applied, practical and WIL was a successful strategy of the PBL and teaching approach and validated by the students. The real-world application enabled the students to implement their skills and knowledge and they gained valuable insight into the industry. The work experience placement of 90 hours issue is further interpreted in the challenges section.

One of the constructive feedback comments from the student survey was, "it was an ideal situation with a safety net" and that this situation, "don't force you to think on your feet and react to situations that arise in the real workplace".

As I agree with this statement, it is also our intention to have a safe learning environment where learners are allowed to make mistakes, or even encouraged, without severe consequences. Food safety is such an example, where the lecturer supervises the process to ensure safe food for our customers. Eliminating financial risk to the Polytechnic is another one. Learners still must "think on their feet", reflection in-action, as any given situation in a hospitality environment is always subject to change. This could be unexpected dietary requirements, weather conditions and demand instability e.g. running out of products because of high demand, or over-production and waste.

Another comment that teamwork issues were present: "little enthusiasm to reflect and implement changes" for next day shows that a business model, 7-8-hours of operation, impedes on the team's ability to reflect clearly and have time for such a reflection, and to then look for opportunities for improvement for the next day's operation.

Although most of us in the industry would view a 7-8-hour operation as a real-life scenario, students obviously struggle with this at times. This was the management in action rotational learning serving as a capstone assessment for this final course of the

programme and to be able to assess work-ready management practices and capabilities, for this I would stand with the industry that the hours of operation are not excessive. The reflective practice referred to was the reflection in-action and realistically this would have to be done on-the-spot in a real-world scenario, effective and quick decision making would be part of this.

My integrated, my side-by-side and in context, teaching approach of two courses over eight weeks, (instead of one at a time over four weeks) added some extra pressure points e.g. the assessment due dates were found to be too close together and changes were made accordingly in the assessment mapping to eliminate this.

Educational commercialisation in hospitality studies, compared with e.g. University of Hawaii, Maui College. Added the realisation that we are very well poised to give our students the opportunity for real-world applied, practical and WIL opportunities with our varied operational facilities of Manaaki, Ako Espresso and the Food Truck.

Engagement with community of practice and industry connectivity through guest lectures, field trips and hosted lunches at Manaaki, are part of the 'thank you' to the host organisations that provided work experience placement and industry links.

The overall engagement of the students was one of my driving forces to achieve excellence in my professional practice, in whatever I do. Their development into professional practitioners, not just in the technical skills, but the capabilities required for the 21st century is an absolute highlight for me each year.

Learner Capabilities

Here I looked for examples of what has changed from year to year. If there is a problem for students to see the impact on their capabilities. What is the evidence that learners developed work-ready capabilities for the 21st century? Was the PBL approach reflective and transformative because students develop the capability to apply their new knowledge to different scenarios?

When preparing the literature review, for me a 'lightbulb' moment was when I recognised that both technical subject matter technical skills and capabilities are required to develop work-ready graduates from the NZDHM. This cannot be achieved in isolation, this must be applied in real-world, our commercial F&B facilities at Manaaki and during work experience placements.

PBL was an effective approach developing learner capabilities for the 21st century when it is applied, in groups and students' own project in a real-world scenario.

An indication of the importance of work-ready capabilities emerged from the host organisations' feedback during the work experience placement. Comments such as "positive attitude", "pro-active with initiative", "helps others", "teamwork", "pride and

approachability", "adaptability and curiosity" highlighted capabilities that the employers expect their employees to demonstrate.

The host organisations feedback proves that some of the work-ready capabilities are developing, so are some of the technical skills required by the industry. The result of being work-ready has been reviewed as being very high amongst the cohorts, that being said, I do acknowledge that there is more learning to be done to successfully meet the GPOs but also to demonstrate some of the capabilities highlighted by the feedback. For this the Management in Action course is an ideal opportunity to bring together all 4 C's + 1 of 21st century skills, step back and facilitate more (fade out direction) and let the groups and individuals learn by making some mistakes.

The applied (practical) nature of the courses and the finance and marketing side by side delivery, was well received by the students. Here the student groups were able to set their own business objectives and strategies for the Ako Espresso pop up experience, this compares well with my F&B strategic management model. This shows how both cognitive skills (subject matter/technical skills) and capabilities (soft skills/competencies/transferable skills) are developing work ready graduates from the NZDHM programme. It is more than just capabilities; we must continue with teaching/facilitating the technical (cognitive) skills.

Endorsement from the focus group meeting practitioners highlighted to me that not only students benefit from a PBL and teaching approach but also lecturers, as highlighted in the BCA programme.

What were the successes?

The success must be the engagement of the learners and to see the personal development, not just in the technical skills, but also learning through blended delivery using on-line technology like the Moodle activities and Class Notebook for collaboration, creation of group projects, communication and critical thinking.

Successful programme completion, from the 2017 and 2018 programme reviews I know that there were a total of 23 graduates; 22 of these graduates went straight into the hospitality industry after graduating.

The graduate destination tracker (Appendix 9) shows a high demand for graduates of this programme, not just in Dunedin but across New Zealand as well as globally. Many of them gain employment well before graduating through the work experience placement in July/August each year. This destination tracking is supported by the end of year one-on-one exit interviews and the Alumni Facebook page that was created for this programme and will continue to be maintained in the future.

Programme structure - New Zealand Diploma in Hospitality Management

This structure allows the students to take learning from the classroom and apply it in a WIL context within Otago Polytechnic's commercial operations and work experience placements. Students compare and contrast class-based and real-world learning, implement skills learnt and reflect on their progress. This helps students take budding skills and cement them into lifelong learning patterns that will foster success in the workplace.

The programme provides a range of experiential learning opportunities through pop-up experiences within Otago Polytechnic's commercial F&B facilities at Manaaki as well as work experience placements in industry. During and after these experiences students identify, apply, document and critically reflect on management practices.

Project-based learning was at its cornerstone and embedded within the curriculum and provides students with the opportunity to work on extended projects using real-world challenges. In the context of this programme, students developed management and critical reflection, group-work, technology skills and capabilities. This was achieved through the use of the on-line tool MenuCoster (MenuCoster, 2019) for recipe costing and menu pricing strategies, OneNote Class Notebook as a collaborative platform and our TasteIT app (TasteIT, 2019) for product feedback during the development phase and peer evaluations. The NZDHM was the first group to use this at FDI. Using a QR code reader to receive feedback of their Ako Espresso experience during October was bringing the customer to the Survey Monkey customer feedback page. This was giving my students instant feedback to look for opportunities for improvement for next day's operation. Implementing the use of mobile devices during their 'train the trainer' sessions where students filmed each other's training session to then post it together with the training plan on the Class Notebook collaborative space, was another example.

I encouraged students to use a real-world business model with costing and pricing strategies linked with the end-users' spending power in mind and the organisations requirement of a cost recovery for pop-up experiences implemented at Manaaki and the Food Truck. I model this by another big push over this two years was to achieve a cost-recovery model for planning and budgeting of material costs such as food and beverage and share this with the FDI team during our regular meetings.

In Figure 25, the F&B budget for the NZDHM, shows that the spend was less than forecasted meaning that the applied learning experiences were below sales highlighting that the cost recovery model was working as intended. The graph to the right showing: 1) Forecast of $4491, 2) Actual of $4031 and 3) Sales of $6838.

2018 New Zealand Diplom in Hospitality Management F&B Budget				
Events	Forecast	Actual	Variance	Sales
Kitchen studios	1216	706	-510	
Welcome lunch	350	294	-56	
Pop-up Tapas lunch experience	1320	1050	-270	2385
Pop-up experience May	850	654	-196	2040
Pop-up experience November	1150	1230	80	2413
Fundraiser Breakfast	105	97	-8	1059
Totals	4991	4031	-960	6838

Notes: Train the Trainer session, $160.00 is included in Kitchen Studios
Breakfast sales is to go into the fundraiser for end of year field trip

* All 2018 Kitchen Studios included in this financials
* May pop up experience we added $112 for coffee beans and milk
* November pop up experience we added $128 for coffee beans and milk
* Pop-up experience food and beverage cost for the year is 43%

Figure 25: Food and beverage budgeting in the NZDHM programme. (Author, 2018).

What were the challenges?

Blended delivery and the enthusiasm of learners to use the on-line activities through Moodle.

Students highlighted as challenges workload and assessment due dates (close together when courses run in parallel), and work experience duration. They commented that five weeks and 90 hours in total is too long. This was also affected by the reality that many of the students work at the same time as study and an 18 hour requirement for work experience placement adds to the overall workload and leaves very little time for relaxation. In the management in action rotation, some 'stations' were felt not invigorating enough, particularly the stores operation.

Group work issues/teamwork was at times a challenge, especially management in action when I stepped back more and faded the amount of direction given.

Overall the data and information gathered was extremely positive, which leads to my conclusion that the PBL and teaching strategies were effectively developed and delivered in the first two years that this NZDHM programme has run at Otago Polytechnic's Food Design Institute.

Reflection and Critical Commentary

I started the MPP journey in 2014, with my Review of Learning (RoL) (see Portfolio Appendix 2). Prior to this journey I completed the Bachelor of Applied Management in 2010. On reflection, my life-long learning journey commenced with my formal chef's apprenticeship in 1975 and subsequent industry on-the job learning through the different international hotel chains I worked for. This work-based learning theme continued here at Otago Polytechnic when I started with the Certificate in Adult Teaching in 1999 and then the Graduate Certificate in Tertiary Learning and Teaching, which I successfully completed in 2008. Through the reflective process I realise that all of my learning took place whilst working and was work-based with more of a practical approach, rather than a theoretical one and I think this comes through in my MPP study.

This work-based learning philosophy defines me and it is evident in my WBR report. I applied the research approach to gain information that informed my educational design of the NZDHM programme and a practical approach of getting things done, with the resources and timeframe available to me. I wanted to evaluate the effectiveness of PBL in the first two deliveries of the programme and analyse the impact this approach has on the development of work-ready learner capabilities. Therefore this WBR project, reflection and critical commentary is in many ways a portfolio of my life-long learning, starting way back when I began my chef's apprenticeship. The inspiration for my WBR project came from the fact that I have been able to research something I am interested in, something of value to not just the students and myself, but also to Otago Polytechnic. I can leave a legacy for the 20 plus years I have been at Otago Polytechnic by being able to have a programme developed and tested to be fit-for-purpose for the 21st century learners and the industry needs for trainee managers and/or supervisors. This means that graduates will be prepared for employment with not just the technical (cognitive) skills but also work-ready capabilities.

My professional practice and potential opportunities for improvement

For this critical reflection I used the ORID (Objective, Reflection, Integration, Decision) model (Stanfield, 2008), which provided me with a progression of question types designed to move from reflecting on a concrete experience to analytical and subjective reasoning. It mirrors the Kolb experiential learning cycle (Kolb, 1984).

My professional aims were, that by the end of this project, I would be able to:
•   plan and implement a WBR project;
•   critically analyse literature about contemporary educational approaches;
•   prepare a literature review to inform educational design and teaching practice;
•   integrate ethical practices within a WBR project.

As mentioned earlier, my learning and the change in my professional practice has been scattered and is evident throughout my WBR project. In particular this change occurred during the TRoQ review of the NDHM programme when the opportunity for improvement was identified, leading to the development and first delivery of NZDHM in 2017. Here I summarise some key learning insights and transformation of practice during my MPP journey. Key learning insights occurred during five stages of the project: 1) the Review of Learning, 2) the Learning Agreement, 3) the Ethics Application, 4) the D4LS Project, and 5) the WBR Project itself.

The Review of Learning

From my RoL in course 1, I used my reflective process and knowledge of past experience that I had available at the time and reflected on, amongst other things, how I work with others and within a team. Themes emerged that I needed to find other ways of communicating my ideas, to be heard and listened to. I have learned, most of the time, during stressful situations to stop before I answer and to consider the impact of how and what I say on others. This insight here was to be more mindful. This reflective process and my change in professional practice gave me the communication skills required to work with the D4LS team in a collegial and collaborative way to develop the new NZDHM programme.

The Learning Agreement and Ethics Application

The learning from the work on my learning agreement (LA) has given me valuable insights into project management. This highlighted my strength in setting achievable business objectives and the ability to articulate the context and background of my project. With this insight I was able to develop the inquiry questions and my learning outcomes. In establishing the project's method I see my biggest learning; looking for a research method was the first and most challenging aspect. This gave me the insight into different research approaches and the understanding of both qualitative and quantitative information. This has transformed my professional practice because having a good understanding of the research methodologies gave me the ability to identify which one suited my WBR project best. From my research approach, mixed

methods, I learnt how to integrate the two sets of information and then draw my understanding of the combined strengths for the result interpretation.

These insights from my research approach and the developed matrix of how to collect information was invaluable for me to look back on and ensured that I was on track during my WBR project.

I have learnt that project planning requires an organised approach, which suits me well. This approach was structured with clear expectations and timelines for me to aim for. However, a major insight was also that things change. Here I had to re-write the LA after my project's 'change in direction' and subsequent modification. This change of direction for the project also affected the ethics application, as several aspects such as the project's title, completion date and the student group changed, from the planned BCA students to the graduates of the NZDHM programme.

During the ethics process I learnt how to take into account the potential vulnerability of participants and any impact that the project might have on them. To incorporate ethics I had to carefully consider and reflect on ethical concerns and cultural risks my WBR project could stimulate. For example I realised having graduates and colleagues involved in my WBR project required careful exploration of ethical concerns so anonymity was not compromised in any way. A student voice was an essential component of my investigation into PBL. I knew that this student voice was important to validate the design of my PBL approach as an effective learning and teaching strategy for this group of students and would help to proof the benefits for developing learner capabilities.

As part of the ethics application process I engaged with the Kaitohutohu Office to analyse how I could incorporate Te Ao Māori values. As a result, I learnt the meaning of Manaakitanga in a New Zealand context. I applied this new learning in the educational design of the programme and in particular in course one, Introduction to Hospitality Management. Here my professional practice changed; I now facilitate a student investigation into the meaning of Manaakitanga. Together as a class we discuss how we could provide Manaakitanga (hospitality) in a uniquely New Zealand way during all of our F&B projects and experiences. Also from this ethics application process I could better understand the three goal vision for Māori advancement.

1) To live as Māori
2) To actively participate as a citizen of the world and
3) To enjoy good health and a high standard of living.

These goals are guided by the Māori ethics framework which I used to develop the educational design of the NZDHM programme and my interaction with my Māori students.

The D4LS Project

The impact from the D4LS project and subsequent review report was my own professional development and learning within this process. For example, I learned about course and programme development, assessment mapping towards the GPOs and extended my ability to think outside the box. It also led to me researching current trends in pedagogy in a collaborative way with the D4LS team. These sample quotes from my input into the report illustrates this learning. For example: "Getting the views from the outside-in" from the D4LS team helped me to reflect on my professional practice, leading to me "being able to strip back, from the old teaching and keep what was beneficial to the learners" and "develop a student centred, blended delivery model." The insight for me from the D4LS project was that collaboration with colleagues was beneficial, in this case, for the development of the programme so that multiple points of view were represented in its design. I was able to transfer this new capability for collaboration within a team directly to my work situation at FDI and this has worked better, improving how I deal with stressful situations when under pressure.

There were however challenges, the loss of the programme manager in the D4LS project had a significant impact. Losing my collaborative partner impacted on the contribution to the D4LS project and made me feel that I had to pick up the slack and put even more of an effort into the project. It further impacted on the stress level and on my time for teaching and general programme lead responsibilities within FDI. This was a significant milestone of my professional practice because the situation required me to be more focused on the controllable, and learn to break the project into smaller, manageable parts so that I could still be responsive to the learning needs of my student groups.

I learnt that although I could work under difficult circumstances and not let obstacles derail the project, I had to learn to prioritise as my students and teaching had to come first. Therefore, I had to postpone my WBR project. I felt that I could not have two major projects and a full time teaching role to cope with, as burnout was a real possibility here. I am grateful that I was allowed to put my WBR project 'on the back-burner' for a while and then being able to use this experience; to review the effectiveness of the learning and teaching strategies developed in the D4LS project and how this develops work-ready students in a hospitality management programme as my project. The impact of this project was that I had the confidence to recommend and implement changes to the NZDHM programme during the first two years of the delivery and this is reflected in the learning journal.

The WBR Project

My experience in the WBR project highlighted the effectiveness and relevance of PBL for providing real-world experiences and in developing learner capabilities. The outcomes further highlighted where the strengths and opportunities for improvement in the learning design could lie. It is clear to me that PBL is not the only approach to take forward in a hospitality management and/or related programme. I am possibly a bit biased towards the PBL because of my industry, on the job learning experiences and my knowledge that this is how I learn best. Since I was willing to think outside the box and wanted to provide a student centred approach, I believed that the PBL approach warranted an investigation. The applied nature of the pedagogical philosophy at FDI means that PBL strategies are the cornerstone of what we do. This has been an insight I was able to take to my WBR project.

My analysis and interpretation of the information and data during the three phases of the project changed my understanding about PBL and how students were responding to real-world learning. It led to how I now think about the PBL approach. As a result of the D4LS project and roll-out of the NZDHM programme in 2017, I have moved from a prescriptive pedagogy that was, a unit standard and underpinning knowledge testing approach, to more blended authentic learning using PBL and ultimately a more student centred learning approach.

A further learning came from the emerging theme of the importance of guiding student learning and how PBL was a successful strategy. I now take care that the project instructions are 'ring-fenced', that the project brief therefore is not too loose, jeopardising the quality of the product or does not achieve the students' learning outcome, or so rigid that it will curb creativity and student motivation.

The WBR project also changed my professional practice in the amount of direction that I provide for each student project. I now fade the amount of direction as the year and their projects progress and at the same time I increase the autonomy students have so they can develop self-regulating learning skills and capabilities. I learnt that for this to happen I need to consider learner maturity. Some are direct from the high school environment, others from our Level 3 & 4 cookery or food and beverage qualification, and others come from the industry. Each learner brings with them different learning experiences and learning styles, therefore, I must consider where they are at. Here I developed my own learning and teaching style. An example of this was that during the Tapas lunch experience at Manaaki I started with a more traditional pedagogical approach that had more directive instructions and focused on the teaching and learning of technical (cognitive) skills, like the re-production of dishes by the students following my recipes supplied. However here my professional practice changed; I modelled best-practice of management processes like planning, work allocation and the setting and following of standards through a set of SOPs, like our food control plan

(FCP). A further change in my professional practice was that I now embed learner capabilities from the outset like collaboration and communication during this first practical experience, with an opportunity for my learners to critically reflect on the experience.

During this first two deliveries of the NZDHM it has been my experience that by giving autonomy and progressively increasing SRL opportunities students developed both technical (cognitive) skills and capabilities. The industry has indicated that these capabilities are present in the students on work experience and students' work-readiness has been very highly rated. The benefit for my own professional practice of using PBL was that I can facilitate learning more and teach less as the year progresses, enabling me to step back and give ownership to the student groups for their projects.

Besides capabilities, the PBL approach developed digital competence, a further requirement to be work-ready in today's hospitality world. Here my professional practice has changed to incorporate more digital tools and I now encourage students to use QR codes linked to a survey using Survey Monkey to collect customer feedback during the Ako Espresso pop-up experience. The survey was set up with criteria such as food and service quality, including speed of delivery. Students gain digital skills through setting up the survey and using the feedback in 'real-time' to reflect on and make changes as required for the next day's operation. This has demonstrated that using reflective practice to improve customer service and product delivery, is a very important capability to possess in the hospitality industry.

Developing more cultural awareness was further learning and I enhanced this by embedding Te Reo Māori in greetings and general communication with students and staff, verbally face-to-face and written on-line through our platforms. This was further enhanced by doing the Te Reo Māori course offered by Otago Polytechnic. Figure 26 shows how I incorporate Te Reo Māori greetings into out of class communications with the student group using our NZDHM Facebook page.
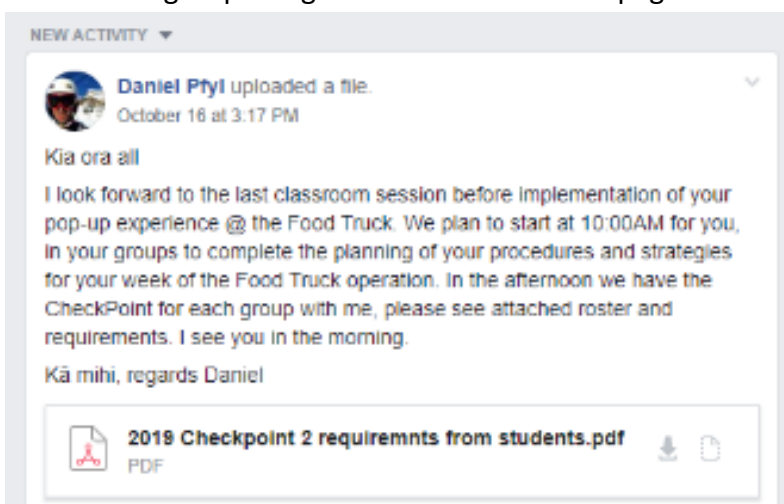

Figure 26: NZDHM Facebook page created by author. (2018).

An important benefit I gained from the WBR project was the work-ready capabilities that I gained along the way. They are listed here.

Collaboration: this was developed within the FDI team, but also outside our department. I work with the foundation learning team and facilitated the Carousel Game and applied mathematics through recipe costing and selling price recommendation. The resulting cookies and slices were then sold at the Hub and the proceeds going to a local charity selected by the students.

Communication: with students be it face-to-face or platforms like Moodle, Facebook and group chats. But also my communication with colleagues has improved by finding another way to communicate my ideas and becoming a more active listener.

Creativity: has been developed in the contemporary programme, course and assessment development and the delivery. I used a productive approach to problem solving and the understanding that I can only control the controllable.

Critical Reflection: in-action and on-action practices and the understanding and valuing of reflective practice as a life-long learning tool.

Technological Competence: the use of technology as a platform for collaboration, communication, creativity and critical reflection, like the One Note Class Notebook. This has improved my own technological 'know how' and ability to facilitate the use of these technologies with my student group.

Consistency Review Report

The consistency review occurred during my WBR project and helped me to understand that the PBL approach is very much in line with what NZQA requires. This was highlighted during the programme's consistency review at the presentation and workshop in Wellington this year. During that review, the aim was to explore and evaluate evidence that my students had achieved learning outcomes and GPOs that were required by the industry. Therefore, the view of the graduates and the employers of these graduates was of utmost importance. NZQA was looking for this evidence, not necessarily how we teach in our programme, but what the evidence was that the graduates achieved the GPOs. What do the employers say and how we collect this information, what are the opportunities for improvement identified and how are we going to get there. I reported on my graduates' destination tracker, including employment and/or further study, employer survey with GPOs specific questions and my graduate survey, including learner capability specific questions. This highlighted that it is more than GPOs, technical (cognitive) skills gained reflected in the GPOs, but that it is also about encouraging the personal development of students, capabilities and

the use of technologies applied in a hospitality context. The outcome was very positive and the decision of NZQA was that we, at Otago Polytechnic have a 'sufficient' final rating for the NZDHM. This was an excellent result after all the work I have been putting into this report, on top of my WBR project in 2019.

A critical incident during my WBR Project

During my participation in the WBR Project last year, one of the students in the FDI passed away and this impacted on my time for my MPP because I had to spend a lot of time with the student's parents arriving from overseas. Due to my language skills, I offered to provide translation. This however increased to include personal support to the parents during their one month stay in Dunedin. This incident made me realise the importance of pastoral care for students in my programme and I realised it is a challenge as a teacher to be able to provide this adequately and to be able to embed strategies in the programme to support students.

The need for pastoral care, both for students and staff across the programmes has in fact become more prevalent in recent years and is a substantial amount of hidden work that I have taken on. Therefore, I have undertaken to get more training in dealing with distressed students and enrolled in courses offered to Otago Polytechnic staff such as 'Good Yarns', Suicide First Aid and most recently during Staff Development Day in October, the 'Support Distressed Students and Mental Health' workshops. These training courses changed my professional practice and got me to think and talk to students and staff about mental health. An insight was the stigma that comes with it when a student was identified as having mental health issues and how this could lead to discrimination. I used this training for my interactions with students, I used it to look for signs of stress and mental health problems. I possess the ability to facilitate discussions, in private, on the topic of suicide, if applicable, with students where I identified a clear risk. This training gave me the understanding of suicide interventions available to me as a teacher, where I can assist, but also where the boundaries are and how to safeguard myself in a situation like this. I now remember that "we don't have to fix their problems", but "we must really listen" to them and paraphrase back our understanding and offer the appropriate support available here at Otago Polytechnic and possible outside resources. The Otago Polytechnic flowchart for supporting distressed students is another excellent tool available to me, this gave me a visual clue how to respond and take steps in dealing with an issue when I am concerned about a student's wellbeing. This learning was and is of value to me in the guidance of my student groups, I was able to incorporate active listening in my regular one-on-ones with my students.

A further challenge for me as a practitioner was that I can't say "No". This has been a bit of an issue as I have taken on projects that were very often outside of my job role

here at FDI. But on the positive side since undertaking the MPP, I now feel I have the ability to operate at a higher level and have taken on more responsibilities, for example, the consistency review project. As a result of my additional responsibilities, I do more mentoring and development of colleagues through coaching and facilitation of cross-teaching within the certificate front of house and diploma programmes and this started in 2018. I initiated internal cross-moderation, within the certificate and diploma team, to oversee consistency within the courses and look for opportunities for improvement. I also initiated the external moderation cluster group meeting, together with the Southern Institute of Technology (SIT) and Otago Polytechnic's Cromwell team. This is now planned for December 9th this year and will continue on an annual and rotational basis between the three locations.

In many ways this MPP journey gave me back the passion for learning and teaching and my desire to do well for my students has again been confirmed to be present. This in reflection, was a bit like a customer service ethos and my inverted pyramid philosophy from the industry. I now have the ability to guide students more effectively, keep my teaching and facilitation relevant, celebrate successes with my students and see challenges as opportunities for improvement that I made to the programme.

This journey also highlights that I do have a wide-angled lens approach, not just what is good for my students but also my community of practice, Otago Polytechnic and the industry as a whole.

My personal self and potential opportunities for improvement

The motivation for this MPP journey was intrinsic, meaning for my own personal growth and satisfaction for a job well done. I know I have achieved the latter when I see my students graduating with the knowledge that they are work-ready, with both the technical (cognitive) skills and capabilities required for the 21st century, this also makes me feel proud of their and my achievement.

I discovered during the MPP journey that there are many impacts on my personal growth. Here I have some examples that showed the transformation of my personal practice. I learnt to be able to be more flexible with my collaborative approach with peers in the FDI. I communicate my ideas more effectively and I am open to the ideas of others. I can now think outside the box and I have stopped resisting change. I do possess the resilience to complete this WBR project, despite obstacles like workload pressure and conflict with my work-life balance philosophy. I have the ability to self-motivate and get the job done.

I have the capacity to change, to stay relevant, keep connected to the industry and build a network of stakeholders, both nationally and internationally.

Reflection on the workload pressure and conflict with my work-life balance gave me the insight that you can't keep on doing what you do and expect a different outcome. This brings back, from the RoL, the values that I have held for a long time. That is, that I prioritise the way I look at my values in life to: 1) Health, 2) Family, 3) Work and in that sequence. The learning behind this is that without good health, you can't have a happy family life and in turn you can't perform well at your work. These values have been moved to the 'back burner' over the last few years. I fall back to working very long hours, a bit like I did while in the industry in the past, to get the job done. This was in both areas, my senior lecturer role at FDI and the completion of my WBR project.

From this reflection I decided to change my approach and applied for the four for five employment option and take six months out of teaching, starting in 2022, to recuperate and regenerate ready to return to teaching.

In 2020 I am going to focus on me, which sounds like a generation-M statement; for this I have set my own personal challenge: the Cycle Tour Aotearoa. A 3000km adventure over a beach, gravel roads, cycle ways and tracks. This challenge is further enhanced because it must be self-supported, from Cape Reinga to Bluff. Although I have been cycling for many years, this cycle tour is something new to me and I look forward to having fun with the learning process, but also how I navigate through adversity and the inevitable challenges an adventure like this brings with it. I hope to be able to celebrate a successful completion, after approximately 30 days of riding, in Bluff mid-March.

Feed forward

What type of research is recommended in the future?

Limitations of my work-based research project

I acknowledge that my WBR project has some limitations. The sample size for both the student evaluations and survey as well as the colleague focus group meeting was limiting because fewer perspectives about PBL were obtained. Also, if there had been more time and students had agreed to interviews with them, which would have enabled me to collect additional qualitative data allowing me to examine students' views more deeply. Even though, the findings cannot be generalised to a wider population, other researchers could still interpret how the PBL process and outcomes of my research could be applied in their context.

From my research a broader range of information is needed to be able to consult more deeply into the effectiveness of PBL to develop learner capabilities. This research could be undertaken in a different context, or again in hospitality related studies with a possibility of a larger sample size, nationally and/or internationally, to capture wider information and data.

Learner Capability Framework Research (LCF)

I was involved in this research with industry at the same time that I was undertaking the WBR project. I found the LCF 2018 research findings very informative. I was part of the team of two interviewing organisations and employers of our FDI programme's graduates.

This draft report gave us the 'top 10' of the learner capabilities that our industry seeks/requires from our FDI graduates so I can compare this with my 4 C's + 1 of the 21st century skills embedded in this programme and look for opportunities for improvement. This comparison could highlight if we are going to keep the capabilities that have been proven successful, or do they need to be changed and/or amended? This would be a collaborative research project for our certificate and diploma team here at FDI as these capabilities could possibly be embedded into other programmes.

Consistency review report

I interpreted the consistency review report as an invaluable resource of information pertaining to the GPOs and therefore technical (cognitive) skills my graduates must possess and be able to display in the workplace. But it also highlighted the importance of the soft skills, capabilities graduates must gain to be able to participate in the real-world of hospitality. During the year students have the opportunity to develop these capabilities as part of their personal development. Group projects are a big part of this, where students work together to develop the concept, food and beverage offerings

through the marketing approach and financial accountability. They collaborate, create, communicate and reflect on the successes and possible opportunities for improvement for the next project and/or how to take this learning to the workplace in the future or at present, whatever the case may be.

The consistency review prompted me to self-assess my learning and teaching approach in the NZDHM programme and look for evidence that our graduates match the GPOs at an appropriate level. For this three areas were considered priority: 1) Graduate feedback, 2) Employer feedback and 3) External moderation feedback. The assumption was that the organisational quality checks and procedures will have assessed the programme delivery e.g. our programme review and the internal moderation process, the quality and fairness of assessment practices.
Two areas were immediately evident of being lacking: the graduate and employer feedback in relation to GPOs and external moderation requirements.

The high employment rates and positive feedback received from stakeholders and graduates was evidence that this programme was meeting the needs of learners and industry however our self-assessment capability would be strengthened by the following actions:

- Investigate ways to align feedback mechanisms with GPOs.
- Ensure that stakeholder feedback is recorded in more detail so it can more reliably inform development and reporting.
- Finalise a four year moderation plan for programme – currently all courses are being pre- and post-assessment moderated internally.
- Finalise external moderation partnership dates with SIT.
- Strengthen self-assessment processes with teaching team so that evidence is being collected and evaluated in a systematic way e.g. summaries of survey results that include sample sizes.

These action points above are a priority for me moving forward.

Reform of vocational education (RoVE)

I would hope that my WBR project has the potential to influence the nation-wide hospitality management programme development, post RoVE. This could shape what a hospitality management programme could look like in the future. I would like to be involved with this development process as I believe our PBL approach to learning and teaching has shown to be effective in developing work-ready capabilities. This could be a big part of my future professional development and practice going forward. The NZDHM programme, with a bit of tweaking and development, can be 'fit for purpose' for a work-based learning approach and the aim is to highlight this with the FDI leadership.

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Literature Review

In this literature review, existing research and knowledge about Project-Based Learning (PBL) is presented, in particular the effectiveness of the approach to guide students' learning and develop work-ready capabilities for the 21st Century. I was interested in exploring the concept of PBL and contemporary research on innovations in this area, looking at how learners and their teachers had responded to this approach. This information helped to inform the educational design and teaching practices of the New Zealand Diploma in Hospitality Management (NZDHM) programme, and was collected during phase 1 of my project.

Historically, PBL as a teaching and learning approach began to be used in vocational education in the early 20th century when Kilpatrick invented the concept of project learning (Warren, 2016). According to Warren, Kilpatrick "advocated the use of projects that engendered purposeful activity and student interest". He believed in learning environments that "cultivated meaning-making and student engagement" (p. 13). The term project-based learning became popular in the early 1990s (Warren, 2016).

However, as Larmer, Mergendoller & Boss (2015) highlighted, during the era of standards and test-based accountability in education, it seemed pointless to look at PBL best practice. A similar situation occurred at the Food Design Institute (FDI) and in New Zealand in general, with the unit standard and underpinning knowledge testing approaches being used at the time. However, it was known that students, when engaged in PBL, scored better than their traditionally educated peers even when tested on basic subject knowledge (Geier et al., 2008, as cited in Bell, 2010). PBL seemed like a worthwhile educational approach to adopt but as Larmer et al. (2015) explain, careful planning is needed to produce a quality learning experience and this takes time. In our situation at Otago Polytechnic's FDI, I worked together with the Design for Learner Success (D4LS) team, as part of the Targeted Review of Qualifications (TRoQ), on the preparation, programme and course design where we planned and developed the course outlines including instructional activities, taking care to align them carefully with the Learning Outcomes (LO) and Graduate Profile Outcomes (GPOs). The process started in mid-2016 and continued until the first delivery in February 2017. We ensured that the instructional activities were well designed, clear, without ambiguity and linked in context with the course design. This avoided the situation described by Larmer et al., (2015) that if the project is not well designed and executed, it can result in a waste of time for students and a failure to achieve learning goals.

Warren (2006) describes PBL as being a supplementary instruction to a regular course with projects that promote learner capabilities such as collaboration and critical thinking.

However, Bell (2010), does not see PBL as a supplementary activity but as the basis of the curriculum. She sees PBL as a student-driven and teacher-facilitated approach to learning.

Taken as a whole, PBL has proven to be effective because it adds a dimension of learning that influences what students learn and how they learn it. Teachers are encouraged to facilitate learning, while students are encouraged to take more ownership of their learning. PBL projects generally culminate in realistic products or presentations. When engaging in projects students need to utilise communication, collaborative and creativity skills (Warren, 2016). Student choice is a key element of the PBL approach. "Teachers oversee each step of the process and approve each choice before the student embarks in a direction" (Bell, 2010, p. 39).

Definitions of Project Based Learning

Project Based Learning (PBL), according to Thomas (2000), is a model that allows students to work relatively autonomously. In this way, students can use investigative activities linking their project with lecturer facilitation, but not direction (lecturer lead) and incorporating reflective practice. The author further highlights the fact that this facilitation is based on challenging questions or problems that drive students to encounter (and struggle with) the central concept and principle of a discipline (Thomas, 2000). This definition highlighted key phases for my project planning e.g., facilitation and suited our educational approach both at Otago Polytechnic and the FDI where experiential learning is encouraged.

Furthermore, Thomas describes the features of PBL to be: "centrality, driving question, constructive investigation, autonomy and realism" (p. 6). The question about what makes a real project is very important. To be a project, there are particular features that must be present or absent for an instructional activity, for example, to be less scripted (packaged). Projects do not end up at a predetermined outcome or take predetermined paths (Thomas, 2000). This led to a key question about how I could use instructional activities without being directive or have them too scripted. This was very relevant to the structure of activities and projects in a new NZDHM programme. As Thomas explains, projects involve students with a constructive investigation. On this topic, the author also highlights the need to research models with similarities like project focused, experiential education and active learning. Thomas (2000) also identifies that PBL incorporates real-life challenges where the focus is on authentic (not simulated) problems or questions and where solutions have the potential to be implemented. This information has influenced my thinking and research into PBL.

PBL is also defined as an approach that provides opportunities for students to learn deep content knowledge and 21st century skills (Ravitz, Hixson, English, & Mergendoller, 2012).

The authors mention skills such as collaboration, communication and critical thinking and recommend allowing for some degree of student voice and choice. The authors suggested this be done through student development of high quality, authentic products and presentations. This suggestion was ideal for the FDI learning and teaching philosophy and I thought it would work well with the project approach that I wanted to design. The recommendations of these authors helped me to realise the importance of developing students' autonomy and skills for self-regulated learning (SRL).

Other researchers such as English and Kitsantas (2013) go further and discuss a number of different ways to support students in SRL. These authors not only highlighted the phases of PBL but also how students must take responsibility for the learning process by setting goals, monitoring and reflecting and through sustaining their motivation from the beginning of the project to the end. They believed that PBL must be designed with intention to support students' SRL. The authors present a model of the relationship between PBL and SRL along with research-driven guidelines on how to promote student responsibility for learning in PBL. Furthermore, English and Kitsantas (2013) define PBL as a student centred, inquiry-based pedagogical approach which has been shown to be effective for facilitating knowledge acquisition and retention. In PBL, students must be responsible for their own learning, and this is dependent on how the teacher organises the learning environment and gives students the opportunity to self-regulate their learning; this is important to their success.

Even though student choice is a key element of the PBL approach, teachers still need to oversee each step of the process and approve each choice before the student embarks in a particular direction (Bell, 2010). In other words, the teacher guides the student by facilitating rather than directing their project process. From my perspective, one way to organise a PBL environment is to situate projects in a real world context (e.g., Manaaki food and beverage outlets). I have found that this increases student interest in the topic, and the theoretical knowledge that students acquire in the classroom can be applied directly in their practice. This supports them to meet the LO of their courses and GPOs of the programme. This aligns with Bell's (2010) view that the outcome of PBL is a greater understanding of the topic, deeper learning, higher-level reading and increased motivation to learn.

Deeper learning is encouraged through reflection, a crucial part of the process is that teachers support students to critically reflect on what they take from their experiences, pop-up experiences in the case of the FDI and how they would use their new learning in a different scenario and in future applied projects. This aspect of PBL instils the reflective process and helps to prepare students for work.

Characteristics of Project Based Learning

Project-based learning has four key characteristics:

1) PBL is student-centred because learners plan their project and set their own goals and actions, monitor their progress and learn to become self-regulated learners

2) PBL is guided by an experienced facilitator so that learners get timely feedback and direction

3) PBL is authentic because it is situated in real-world learning experiences

4) PBL is reflective and transformative because students develop the capability to apply their new knowledge to different scenarios.

The process of Project Based Learning

Students learn to become self-regulated through the planning and organisation of their projects. There are several phases within PBL and each must be planned thoroughly and completed in a timely manner to ensure the flow of the project and students' success. Students begin by using organisers to isolate an enquiry question. They then brainstorm their procedure for research and identify the materials needed. Next, students select a way to display what they have learnt from their project to their target audience which must be authentic and appropriate (Bell, 2010). To engage students, any technology used in the project would need to supplement the students' digital fluency and be relevant to the project process (Bell, 2010). An example of a project process used in the NDHM programme is described in the Background and Context section of the report. In an effective PBL environment, students learn by constructing knowledge, interactive questioning, active learning e.g. by doing, sharing the experience with others and by critical reflection. (Blumfeld et al., 1991, as cited in English & Kitsantas, 2013).

A model presented by English and Kitsantas illustrates an effective process indicating that as teachers carefully fade the amount of direction they provide to students in a project with appropriate structure, scaffolds and guidance, students may simultaneously begin to develop SRL skills and construct knowledge. As shown in Figure 27 three phases of PBL occur within a constructivist paradigm: Phase 1 – Project Launch, Phase 2 – Guide inquiry and product creation, and Phase 3 – Project conclusion. Accompanying this are three SRL phases that encourage social cognition during the student processes: Forethought, Performance and Reflection (English and Kitsantas (2013, p 133).
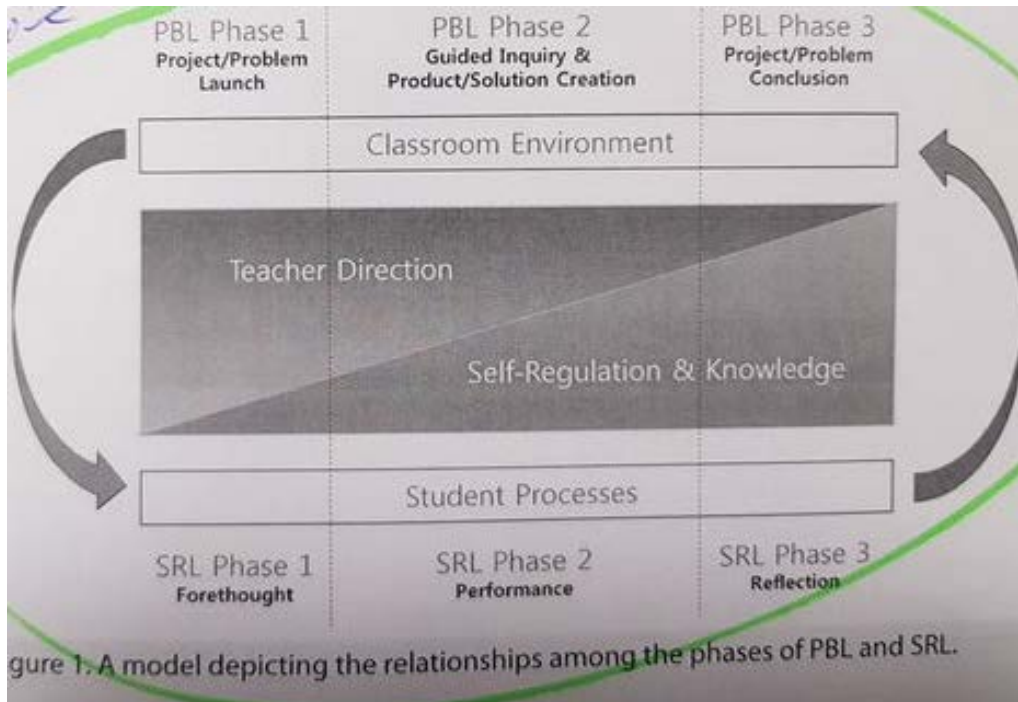
Figure 27: Relationships among the phases of PBL and SRL. (English & Kitsantas, 2013).

Project-Based Learning tends to be cyclical, involving a process of questioning, research, and the application of logic and reasoning, whereby learners develop and test hypotheses through analysing evidence and creating new information. By integrating feedback from their peers and teachers deeper levels of understanding are reached (English & Kitsantas, 2013).

In the model, English and Kitsantas highlight strategies that teachers have employed to support students' responsibility for learning and how these strategies are related to the theory of SRL.

Phase 1: Project launch

PBL learning is viewed by the authors as being most effective when students have some forethought in regards to the project and employ SRL processes. With this students can recall previous experiences and prior learning to set their own incremental goal and select learning strategies that help them to achieve their goal.

At the beginning of the project, the lecturer has to provide more structure, clear instructions with key milestones and direction, and provide a model of desired behaviour. Without using well-crafted instructions and appropriate support, students may get focused on the project details, the activity, and lose sight of the learning of concept. This phase has the potential to offer a deep and meaningful student learning experience; for this teachers must engage with students to clarify the students' goal, as successful projects depend on this.

The amount of structure is an important consideration to make, too structured and it could lessen the motivation of high SRL students; too unstructured could lessen the motivation of low SRL learners, therefore student maturity and taking responsibility for their own learning is an important part for the teacher to reflect on prior to starting phase 1. If the amount of structure is too prescriptive, students could lose sight of the learning as they simply follow step-by-step instruction, on the other hand if not prescriptive enough, the authors highlight, students did either not learn because they were too focused on the project details, kept on tinkering or they became frustrated.

Successful project activities structured to support the development of SRL processes include protocols, templates and other resources which help students develop effective SRL skills such as time management, and encourages goal setting, together with clear communicated deadlines and due dates so students can check their progression.

Phase 2: Guided inquiry and product/solution creation

The important practice during this phase is for the teacher to gradually fade direction and transition into the role of facilitator so the level meets the need as the project progresses and that the feedback is appropriate, non-threatening and mastery-oriented.

Another important practice for teachers in phase 2 is that students gain practice in monitoring the progress and can identify when they need additional information, while the teacher is able to assess the students' level of understanding and progress and provide appropriate guidance and scaffolding.

White boarding to aid visual thinking, reflection prompts, and formative assessments are three ways a teacher can use to cultivate students SRL skills, to visualise ideas, solve problems together and keep track of the students' project. This allows students to think about where they are at, the lecturer to identify and address student misconceptions. Testing their ideas allows students to make mistakes and learn from them. Two types of reflective prompts are described: active prompts, questions designed for students to improve their projects; and self-monitoring prompts, which cue students to plan reflection on learning.

By 'scaffolding' the project through milestones, the teacher has the opportunity to review student progress and provide formative feedback at each milestone. The teacher gains access to information to determine appropriate level of direction and support.

Phase 3: Project/problem conclusion

Here, facilitated by the teacher, students are encouraged to reflect on their learning outcomes, goals and process. What resources were useful, what strategies were most effective, where they had challenges and successes. Students should be encouraged to share their experience and project solutions to the entire class.

An additional strand of research on PBL involves attempts to improve the delivery of effectiveness of this approach by intervening in its practice. The intervention may be designed to correct an observed weakness associated with some PBL feature; to remediate or accommodate some student deficiency relative to an aspect of project work.

These interventions, which are designed to support PBL, have been referred to as scaffolding (Guzdial, 1998, as cited in Thomas, 2000).

In contrast to the effective model of PBL proposed by English and Kitsantas (2013), practices that are not effective occur where students are not adequately supported. The fading out of the amount of direction provided by the lecturer is of utmost importance, as dropping students in the 'deep end of the pool' is not effective. The maturity of the students tends to affect the amount of direction provided, as too much direction given to a mature student with some experience is not appreciated, nor is it motivational.

The importance of scaffolding the project's direction through the instructional activities requires that students need to first learn how to learn. The initial guidance is especially important with the different demographics of learners in vocational education. Teachers have difficulty knowing when to provide direction and when to step back. The provision of a positive learning environment with frequent formative feedback, giving opportunities for students to compare their project work with others and being open to constructive feedback is beneficial to both students and teachers.

Benefits and challenges of Project Based Learning

Thomas (2000) offered the following tentative conclusion: 1) there is evidence that students have difficulty benefiting from self-directed situations, especially if projects are complex; they have difficulty with initiating inquiry and directing investigation. Using time management and technology productively helps students learn how to learn; 2) PBL is a more popular method of teaching than traditional methods and more beneficial to both students and teachers as an instructional method; 3) beneficial consequences are enhanced professionalism, collaboration, improved attitudes towards learning and increased attendance; 4) a PBL approach is equally or slightly better in developing cognitive skills, especially in traditional subject matters and produces gains in general academic achievements.

More important, Thomas claims that "learning higher-level cognitive skills via PBL is associated with increased capabilities on the part of the students for applying those learnings in novel, problem solving contexts" (2000, p 35).

For students

The research from Bell, (2010) supports PBL as a learning and teaching approach to engage students in a real-world scenario; further, the "motivation is sustained through meaningful, real-world problems and projects" (p. 42). Evidence exists that through PBL, students become better researchers, problem solvers and higher-order thinkers (Gultekin, 2005, as cited in Bell, 2010). Dewey (1938, as cited in Bell, 2010, p. 42) proposed that "learning by doing has great benefit in shaping students' learning".

At the Hong Kong Polytechnic University, the results of a study on student perceptions of an embedded problem-based learning instructional approach in a hospitality undergraduate programme suggests that students appreciate a self-directed approach to learning. The students in the study mainly experienced a traditional learning and teaching approach during their education, and were accustomed to a teacher-led, passive style of learning. However, after exposure to PBL methods, students demonstrated that they were able to take a more proactive role in their learning (Kivela & Kivela, 2005).

For teachers

Bell highlights that for teachers it has become evident that a real-world and PBL approach is increasing students' learning from the project outcome and its processes to get there. The reflective process shows not just them but the students how team-work was evident and how well each group member contributed to the project. Communication skills are reflected on; the author highlighted that "students become critical friends by giving constructive feedback to each other" (Bell, 2010, p. 43).

SRL is critical for students' success in PBL; the lack of such skills poses an obstacle to learning. While teachers may agree that they need to support students' development of SRL, research has shown that many do not know how to do so (English & Kitsantas, 2013). Therefore, there would be significant benefit from including training and education on SRL development as an integral part of pre-service and professional development activities (English & Kitsantas, 2013).

Example of PBL in culinary arts

There is generally a lack of hospitality examples in PBL; there are however similar approaches, internally at Otago Polytechnic and FDI studies (Mitchell, Woodhouse, Heptinstall, & Camp, 2013) as a similar approach e.g. design process and student centred. The exploration of the literature of Mitchell et al., (2013) highlights culinary arts education in a more liberal and critical approach, with design thinking that allows students to take their own pathway in their dish design. This allows students to use their agency and/or autonomy to explore knowledge that is most relevant to them, using techniques and content from within the classroom and kitchens with teacher directed

activities. Instructional activities are guided by the double diamond design model, student centred PBL approach. Students have been given progressively more agency and/or autonomy over the three years of the BCA programme and a constructivist approach is evident. The BCA programme incorporates a reflective aspect to nurture students to become critical practitioners. This was very much a learning and teaching approach that I was able to use to inform my inquiry questions and inspired my course and NZDHM programme design, but I will further evaluate the learning and teaching approaches through observation and colleague focus group meetings. I will also refer to it in my WBR project report and critical commentary.

Work-ready capabilities

As mentioned previously, PBL is beneficial in helping learners to develop their skills in preparation for work. This includes technical (cognitive) skills as well as capabilities (soft or transferable skills) such as team-work, creativity in problem solving, communication, both verbal and written, and critical reflection practices.

Therefore the question I explored here was *what capabilities are needed for students to be work-ready in the 21st century?* At Otago Polytechnic one of our missions and purposes is for our graduates to be work-ready which links to the policies of the New Zealand government and the notion of professional practice and preparation for work. Otago Polytechnic initiated Learner Capability Framework (LCF) research in 2018. I was part of a team of two who interviewed organisations and employers of our FDI programme graduates. The resulting draft report gave us the 'top 10' learner capabilities. I will use this finding in my WBR project and critical commentary to compare and contrast the 'top 10' from this research with the Bachelor of Culinary Arts (BCA) 4 C's for 21st century learner capabilities model outlined below. This will serve to evaluate the effectiveness of this model and suggest opportunities for improvement.

Skills for work-readiness

Definition

A variety of interpretations are used to describe work-readiness and what I understand to be learner capabilities. They all have a common thread; Spowart, (2011) describes them as soft skills, behavioural skills and generic attributes or 'transferable skills'. At Otago Polytechnic the BCA programme defines them to be the '4 C's' for 21st century learner capabilities. This has become the model of practice to develop 21st century skills such as creativity, critical thinking, collaboration and communication. These capabilities can also be viewed as characteristic of a student, which differentiates them from technical skills (Vaillancourt, 2014).

The BCA programme's 4 C's for 21st century students is shown at Figure 28. I have identified the NZDHM definition of these capabilities.
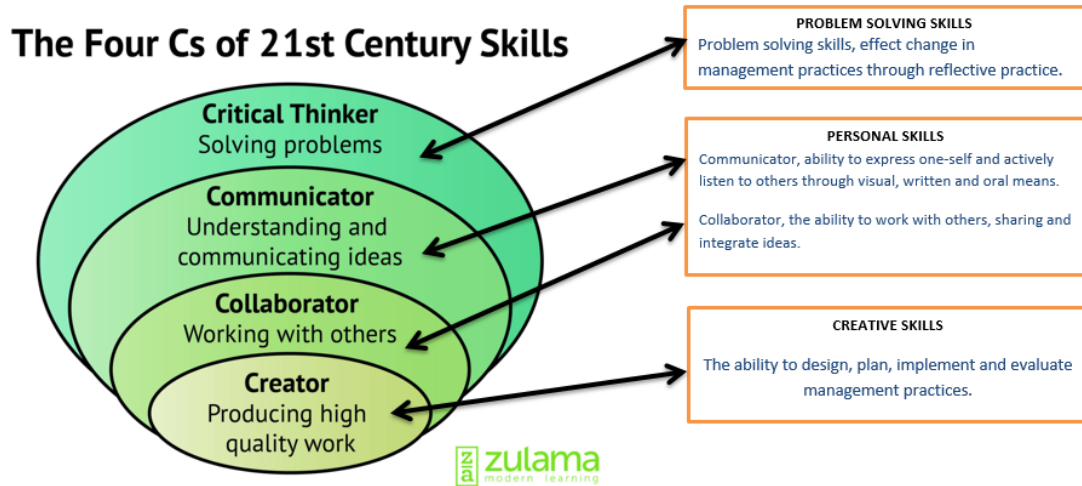

Figure 28: The Four Cs of 21st century skills (Vaillancourt, 2014).

My exploration into the literature highlighted a number of 21st century capabilities, including those described by Ravitz et al., (2012) and Warren (2016). They are largely the same and they include capabilities like: 1) critical thinking skills which refers to students being able to analyse real-world problems, develop problem solving skills and draw appropriate conclusions based on evidence; 2) collaboration; students being able to work efficiently and respectfully in teams, be it digitally or face-to-face and share responsibilities to achieve group objectives; 3) communication; students being able to share, articulate thoughts and research findings verbally, written or in presentations; and 4) creativity; students being able to generate and refine problem based solutions and present them in an original way.

Unique to Ravitz et al., are: 1) self-direction; students being able to take responsibility for their own learning, evaluate their work and respond to constructive feedback, and 2) using technology as a tool for learning and use communication technologies effectively.

Unique to Warren are: 1) agility and adaptability; students being able to adapt to diverse learning situations, are flexible and agile in handling change; 2) initiative and entrepreneurial; students being able to be self-directed learners, taking initiative to make things happen, are proactive, take on responsibility and have the ability to take risks; 3) accessing and analysing information, and 4) curiosity and imagination; students being able to analyse and interpret research information, know what it means and why it matters.

In the context of the hospitality industry, employers expect their employees to demonstrate specific capabilities. Here I wanted to explore if my students' capabilities are sufficient to be work-ready. Or if the capabilities that students develop in a vocational educational setting are different to those that employers expect.

Analysis of the Harkison, Ginny Kim and Poulston (2011) journal highlighted the different expectations and assumptions that exist in regards to attributes that the industry desire from employees and what the students' expectation was of what the hospitality industry requires. The research analysis was based on surveying 74 hospitality managers and 137 hospitality degree students at AUT University in Auckland. The gap highlighted shows that the expectations are significantly different between students and the hospitality industry; this was displayed by their different views of what makes up attributes. The industry is looking for personality; the students thought that knowledge and skills were important. For progression and being considered for promotion students believed that communication skills were important; the hospitality industry highlighted initiative as a skill requirement. The authors suggest that managers' value attributes over skills and are prepared to help employees to acquire the technical skills they require. However this was not upheld by their research responses to the criteria of new employees.

Spowart (2011) highlights that employers indicated that students are often not work-ready and calls for vocational education providers to prepare students to be more employable by developing capabilities, transferable skills like interpersonal, team work, communication and problem solving. The author further highlights that students technical and subject matter skills are satisfactory, but improved intellectual capabilities makes them more employable.

For the vocational education providers, understanding these skills that the hospitality industry requires is important so they can continuously adjust the curricula to support students along with industry needs. For students, this would improve the satisfaction of skills the programme develops and their job prospects. The author also added an important view that a sound vocational education prepares the students for many aspects of life, be it being work-ready for the hospitality industry or for use elsewhere. The author also believes that in a hospitality degree, students should understand various parts of the technical skills required by the hospitality industry such as marketing and human resources strategies (Harkison, Ginny Kim, & Poulston, 2011).

Harkison et al., (2011) study conclusion highlights that students have a high expectation to be work-ready, this expectation is what motivates them to see a degree through to the end. The hospitality industry on the other hand expects work-ready employees with relevant experience and training in technical skills, which according to the authors can only be gained in the industry. This is viewed to be somewhat outside the domain of education providers, except if this would be included as a mandatory extra. The quote "the real treasure is industry's interest in the very attributes that educators may find

difficult to teach" (Harkison et al., 2011, p. 388). If vocational education providers believe that their students are work-ready for a management role in the hospitality industry, they need to find a way to teach and develop this attribute to secure students entry to the industry and prospects for promotion (Harkison et al., 2011).

It is suggested the vocational nature of hospitality management is ideal to utilise Work-Integrated Learning (WIL). This method would transfer classroom theory, knowledge and activities to the work place; most vocational education providers have the physical facilities to allow for the learning and teaching of technical skills to customers in a real-life scenario, giving students the opportunity to apply acquired knowledge, technical and soft skills in an authentic setting, rather than a simulated scenario in the classroom (Tovey, 2001, and Waryszak, 1999, as cited in Spowart, 2011).

According to Rainsbury et al., (2002, as cited in Spowart, 2011) the literature suggests that the importance of soft skills has a place in vocational education, but should be integrated and contextualised into the courses of an entire programme curriculum e.g. not taught in isolation.

The final statement is of substantial value to my research – "graduates with the ability to think critically, engage others, take the initiative in difficult situations and generally become inspirational leaders, are ultimately the most desirable and no doubt sought by more than hospitality employers" (Harkison et al., 2011, p. 389). This highlights for me the importance of these capabilities and how important it is for a vocational education provider to embed them, incrementally, into the courses and programmes' learning and teaching approach and curriculum if we aim to have our students work-ready.

Bell (2010) highlights that students must enter the workforce willing to be evaluated on their performance. The evaluation process, if they are work-ready or not, will not only be on their job outcome but also their capabilities. With this approach we are preparing students to engage in 21st century capabilities and practices with preparedness and a repertoire of skills they can use successfully in the work place.

This exploration informs not only my inquiry questions and educational design of the NZDHM programme and its courses, but also highlights that PBL is an effective teaching and learning approach to develop work-ready learner capabilities required for the 21st century.

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Appendices

Appendix 1: Ethics approval letters

29 June 2016

Daniel Pfyl
39 Sutcliffe street,
St Clair,
Dunedin
9012

Dear Daniel

Re: Application for Ethics Consent
Reference Number: 646
Application Title: *Innovating culinary arts education: a pilot for teaching financial kitchen management (FKM) using Project Based Learning (PBL).*

Thank you for your application for ethics approval for this project.

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

Many thanks for your careful responses to our recommendations.

We wish you well with your work and remind you that at the conclusion of your research you should 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

Richard Humphrey
Chair, Ethics Committee
Otago Polytechnic

4 November 2019

Daniel Pfyl
Food Design Institute
Otago Polytechnic
Private Bag 1910
Dunedin 9054

Dear Daniel

Re: Ethics approval for project amendment

Reference Number: 646
Application Title: *Innovating culinary arts education: a pilot for teaching financial kitchen management (FKM) using Project Based Learning (PBL).*
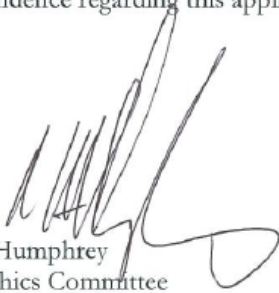
Thank you for notifying Ethics Committee of the amendments to this research project.

This letter is to advise that the following have been approved:

- Project focus change to evaluation of Project Based learning and teaching strategies to develop learner capabilities in the New Zealand Diploma in Hospitality (Level 5) programme
- Evaluate the effectiveness of programme delivery in 2017 and 2018
- Conducting online survey with Survey Monkey
- Changed participant group to students from 2017 and 2018
- Extension to 31 December 2019.

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 project title and reference number assigned to it.

Regards

Dr. Liz Ditzel
Chair, Otago Polytechnic Research Ethics Committee

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                         Private Bag 1910   Phone +64 3 477 3014   www.op.ac.nz
                         Dunedin 9054

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Appendix 2: Graduate work experience evaluation and colleague focus group questions

Below are the 2019 Graduates Survey set up through Survey Monkey, and the Colleague Focus Group Meeting questions used to facilitate the discussion. The information and consent forms are provided.

EVALUATION GRADUATES SURVEY 2018 AND 2019

The researcher, Daniel Pfyl, is reviewing the New Zealand Diploma in Hospitality Management (Level 5) programme. The research project is to investigate how relevant the project-based learning and teaching strategies were for guiding students' learning and what the evidence is that learners develop their work ready capabilities.

Note: For the questions a six point Likert-type scale was used. Each end with: please explain the reason for your answer.

Strongly agree	Agree	Slightly agree	Slightly disagree	Disagree	Strongly disagree

Q1. The project-based learning and teaching strategies applied in Manaaki, Ako espresso and The Food Truck were realistic work experiences that prepared me for project work.

Q2. The project-based learning and teaching strategies used were relevant for developing my understanding of management practices used in the Hospitality industry.

Q3. Bringing a hospitality business model into a real-life scenario such as Manaaki, Ako espresso and The Food Truck is a great opportunity to apply, reflect and learn from management practices.

Q4. During the year I have developed work-ready capabilities expected by our Hospitality industry.

Work-ready capabilities are: Critical Thinker, Communicator, Collaborator (works in teams) Creator (thinks creatively) and Demonstrates Digital Competency.

Q5. Project based learning helped me to understand management practices.

Q6. What did you feel was the most successful project for your learning and development of work-ready capabilities? Please explain why.

Work-ready capabilities are: Critical Thinker, Communicator, Collaborator (works in teams) Creator (thinks creatively) and Demonstrates Digital Competency.

Q7. What did you feel was the biggest challenge for your learning and development of work-ready capabilities? Please explain why.

COLLEAGUE FOCUS GROUP MEETING QUESTIONS 2019

I am reviewing the effectiveness of the learning and teaching strategies used in the first deliveries, during 2017 and 2018, in the New Zealand Diploma in Hospitality Management (Level 5) programme.

I am investigating the relevance of the project-based learning and teaching strategies used for guiding students' learning, and the evidence that learners develop their work ready capabilities. Work-ready capabilities could be: Critical Thinker, Communicator, Collaborator (works in teams) Creator (thinks creatively) and Digital Competency.

I am also looking for evidence of success and challenges associated with this project-based learning.

Q1. How do you use project-based learning and teaching strategies in the Bachelor of Culinary Arts programme?

Q2. How relevant do you think a project-based learning and teaching approach is for the development of understanding of management practices used in the Hospitality industry? Please also state why you believe this.

Q3. Do you believe bringing a hospitality business model into a real-life scenario such as Manaaki, Ako espresso and The Food Truck is a great opportunity for learners to apply, reflect and learn from management practices?

If yes, why do you think this is a great opportunity?

If no, why do you believe this?

Q4. How effective is a project-based learning and teaching approach in developing work-ready capabilities expected by our Hospitality industry?

Q5. What are some of the successes with developing work ready capabilities using project-based learning that you have observed in the BCA programme? Please explain why you rate them as successes.

Q6. How and why do you believe these successes developed the learners' work ready capabilities?

Q7. What are some of the biggest challenges for your learners to develop their work-ready capabilities within a project-based learning approach? Please explain why.

Appendix 3: Learner participant information form – Evaluation

You are cordially invited to take part in this research being conducted by Daniel Pfyl, Senior Lecturer, on behalf of the Otago Polytechnic's Food Design Institute (FDI).

Project title

Evaluate the effectiveness of project-based learning and teaching strategies to develop learner work-ready capabilities in a Hospitality Management programme.

General Introduction

In this research project, I will evaluate the effectiveness of the learning and teaching strategies used in the first deliveries, during 2017 and 2018, of the New Zealand Diploma in Hospitality Management (Level 5). The evaluation will occur in the third phase of the research project, and you will be asked to give feedback on your experiences in the New Zealand Diploma in Hospitality Management (Level 5) programme.

What is the aim of the project?

The aim of the research project is to investigate how relevant the project-based learning and teaching strategies were for guiding students' learning and what the evidence is that learners develop their work ready capabilities.

How will potential participants be identified and accessed?

You have been given this participant information form because you have completed the New Zealand Diploma in Hospitality Management (Level 5) programme where the research project is undertaken. Participants will be personally contacted by Sylvia Gilkinson, FDI administrator.

What types of participants are being sought?

Data collection for the evaluation will occur with learners who completed the New Zealand Diploma in Hospitality Management (Level 5) programme in 2018.

What will your participation involve?

Should you agree to take part in this research you will be asked to give feedback to specific reflection questions about how we deliver the New Zealand Diploma in Hospitality Management programme. The reflection document will be in a digital format using *Survey Monkey*, a link for this will be emailed to you by the FDI administrator.

How will confidentiality and/or anonymity be protected?

Only the FDI administrator and the researcher will handle the data collected. All personal identifying information will be removed before analysis. The data will be kept confidential, no participants will be named in the written material prepared as a result of the project. General findings, and possibly anonymised quotes from participants will be described in the project report, possibly a journal article and/or conference proceedings.

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

Results of this project will be published as a research report and possibly as a journal article and/or conference proceedings. Data included will in no way be linked to any specific participant. You may request a copy of the project report and you will be notified when this is ready to be accessed.

Data Storage

The data collected will be securely stored in such a way that only those mentioned above will have access to it. At the end of the project any personal information will be destroyed. Raw data will be retained in secure storage for a period of five years, after which it will be destroyed (unless agreed otherwise on the consent form). All data will be anonymised and coded prior to analysis to prevent individuals being identified. This project will remain the property of Daniel Pfyl, the researcher, with a copy being handed into Otago Polytechnic for assessment purposes and a copy handed to FDI.

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. You can also withdraw any information that has already been supplied until the stage agreed on the consent form. You can also refuse to answer any particular question.

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:

Daniel Pfyl, Senior Lecturer and Researcher
daniel.pfyl@op.ac.nz
Food Design Institute

Sylvia Gilkinson, Administrator

sylvia.gilkinson@op.ac.nz
Food Design Institute

or:

Any additional information given or conditions agreed to will be noted on the consent form.

Appendix 4: Colleague and/or leader in the field participant information form - Evaluation

You are cordially invited to take part in this research being conducted by Daniel Pfyl, Senior Lecturer, on behalf of the Otago Polytechnic's Food Design Institute (FDI).

Project title

Evaluate the effectiveness of project-based learning and teaching strategies to develop learner work-ready capabilities in a Hospitality Management programme.

General Introduction

In this research project, I will evaluate the effectiveness of the learning and teaching strategies used in the first deliveries, during 2017 and 2018, of the New Zealand Diploma in Hospitality Management (Level 5). The evaluation will occur in the third phase of the research project and you will be asked for feedback of your experiences, relevancy in guiding students, successes and challenges with project-based learning in the Bachelor of Culinary Arts programme.

What is the aim of the project?

The aim of the research project is to investigate how relevant the project-based learning and teaching strategies were for guiding students' learning and what the evidence is that learners develop their work-ready capabilities.

How will potential participants be identified and accessed?

You have been given this participant information form because you are a colleague and/or leader in the field of Education and/or Hospitality Management, the area where the research project is undertaken and personally contacted by Sylvia Gilkinson, FDI administrator.

What types of participants are being sought?

Data collection for the evaluation will occur with colleagues and/or leaders in the field of Education and/or Hospitality Management in New Zealand and overseas.

What will my participation involve?

Should you agree to take part in this research you will be invited to participate in a 30 to 60 minute interview or focus group discussion facilitated by the researcher Daniel Pfyl, Senior Lecturer at the FDI. You may also be asked to contribute material to the research project.

How will confidentiality and/or anonymity be protected?

Only the FDI administrator and the researcher will handle the data collected. All personal identifying information will be removed before analysis. The data will be kept confidential however general information about the review may be shared across FDI and will also be described in the project report, journal article and/or possible conference proceedings.

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

Interviews and focus group discussions will be audio recorded, and transcribed prior to analysis. The facilitator may also take notes. Results of this project will be published as a research report and possibly as a journal article and/or conference proceedings. Data included will in no way be linked to any specific participant.

You may request a copy of the project report and you will be notified when this is ready to be accessed.

Data Storage

The data collected will be securely stored in such a way that only those mentioned above will have access to it. At the end of the project any personal information will be destroyed. Raw data will be retained in secure storage for a period of five years, after which it will be destroyed (unless agreed otherwise on the consent form). All data will be anonymised and coded prior to analysis to prevent individuals being identified. This project will remain the property of Daniel Pfyl, the researcher, with a copy being handed into Otago Polytechnic for assessment purposes and a copy handed to FDI.

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. You can also withdraw any information that has already been supplied until the stage agreed on the consent form. You can also refuse to answer any particular question, and ask for the audio to be turned off at any stage.

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:

Daniel Pfyl, Senior Lecturer and Researcher
daniel.pfyl@op.ac.nz
Food Design Institute

Sylvia Gilkinson, Administrator

sylvia.gilkinson@op.ac.nz
Food Design Institute

or:

Any additional information given or conditions agreed to will be noted on the consent form.

Appendix 5: Learner participant consent form

Project title

> Evaluate the effectiveness of project-based learning and teaching strategies to develop learner capabilities in a Hospitality Management programme.

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 data relating to me up until the point where analysis has started, as data is anonymised and will be unable to be identified to particular individuals. You will be advised when this will occur.
- The data will be destroyed and material that I have contributed to the research project, returned to me 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.
- Results of this project will be published as a research report and possibly as a journal article and conference proceedings. Data included will in no way be linked to any specific participant.
- I may request a copy of the project report and you will be notified when this is ready to be accessed.
- Additional information given or conditions agreed to

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 6: Colleague and/or leader in the field participant consent form

Project title

Evaluate the effectiveness of project-based learning and teaching strategies to develop learner capabilities in a Hospitality Management programme.

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 data relating to me up until the point where analysis has started, as data is anonymised and will be unable to be identified to particular individuals. You will be advised when this will occur.
- The data (including audio recordings) will be destroyed and material that I have contributed to the research project, returned to me 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.
- Results of this project will be published as a research report and possibly as a journal article and conference proceedings. Data included will in no way be linked to any specific participant.
- I may request a copy of the project report and you will be notified when this is ready to be accessed.
- Additional information given or conditions agreed to

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 7: Host organisation visit questionnaire

WORK EXPERIENCE (PLACEMENT) HOST ORGANISATION VISIT 2018

Intern Name   _____
Host Organisation   _____

Intern Objective:
At the successful completion of this course, students will be able to:

Identify, document and critically reflect on management practices (minimum of five) during work experience.

1. Are you aware of the **intern's objectives** during this five week work experience (placement)? If not why is this the case?

2. If so what are the objectives the intern has **shared with you or asked questions** about?

This could include but is not limited to:
- Organisational structure (roles and functions)
- Communication strategies
- Sales and marketing strategies and marketing research (information systems)
- Management (Leadership) styles
- Planning and work scheduling practices
- Financial management and reporting systems
- Human Resources Practices
- Others?

  _____

3. What do you think of the **five week duration** for this work experience (placement)?

4. What do you think of the **six hour a day** requirement for this work experience (placement)?

5. What **work-ready capabilities** are important in your organisation and why?

6. **Is the intern displaying some or all of this capabilities** during the work experience placement to date?

7. In your view, **is the intern work-ready**?

8. Would you **support the work experience** (placement) again in the future?

9. Do you have any **questions and/or require any clarification** in regards to **providing feedback for the intern**?

Appendix 8: Host organisation intern evaluation

Name of intern: _____

New Zealand Diploma in Hospitality Management (Level 5) HOST ORGANISATION EVALUATION	
Stop *Name one thing you would suggest the intern should stop doing or less of.*	
Go *Name one thing you would suggest the intern should start doing or more of.*	
Continue *Name one thing you would suggest the intern should keep doing or is doing well.*	
General feedback and opportunities for improvement:	

Name of host organisation: _____

Signature: _____

Appendix 9: Graduate destination tracker

DESTINATION TRACKER 2017 GRADUATES

Graduate	Destination
1	La Cantina Mexican Restaurant, Dunedin
2	The Ranch, Te Anau. Then Rippon Valley and/or Café in Wanaka
3	Duty Manager full time at La Porchetta, Dunedin
4	Café at Ross Home & Hospital Now Centre City New World, Dunedin, at Deli Counter
5	Edgewater Hotel, Wanaka Now Fullers Ferry's in Auckland as a On Board Service Crew in preparation for work on Super Yachts in the future.
6	Summer at Wanaka Vineyard
7	New World Centre City, Dunedin. Barista stand
8	The Galley Café; now building industry (better money)
9	BCA and part time work in hospitality
10	Wanaka apprenticeship in small mechanical machinery
11	Disney World, Florida Now recently returned to New Zealand and working at the Hamilton Casino
12	Compass Group and for OP functions and catering. Now Pizza Francesca, Dunedin

DESTINATION TRACKER 2018 GRADUATES

Graduate	Destination
1	Otago Polytechnic Functions & Catering including Eden Café
2	Kelly's Café & Catering in Milton
3	La Porchetta, Dunedin
4	Southern Cross Hotel Dunedin Conference, F&B department. At present on OE in Europe
5	Silla Turkish Café, Dunedin
6	2019 intake NZ Armed Forces
7	Distinction Hotel Dunedin. Housekeeping Department
8	Watsons Eatery, now Moiety restaurant, Dunedin, and own business venture
9	Commercial Tavern, Green Island, Dunedin. Now at Hoyts Cinemas in Christchurch and Further study Bachelor of Accounting through MUSA distance study
10	Melbourne Zagames' (Family Italian Restaurant)