**Premier’s Commonwealth Bank Vocational Education Scholarship**

**Can Simulated Workplace Environments Make a Positive Contribution to Student Outcomes**

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In 1982 I completed my school certificate and to a very young and naive mind, that was the end of my time in educational settings. Some 33 years later I am still learning and firmly entrenched in educational institutions having now been a teacher for 23 years. I solidly believe that learning is a lifelong activity that is to be encouraged and nurtured at all levels by all in the education professions.

My teaching practice has been formed by the tradesmen that guided me as an apprentice, my TAFE teachers, university lecturers and colleagues that I have watched deliver vocational education so passionately over my teaching career. At all of these levels skills and values have been passed on.

Early in my teaching career I began to notice that although students were enrolling in VET courses the drive and passion that was often evident in apprentices was often missing even though the skills being taught were the same. I began to realise that perhaps it was not the message but the surrounds in which the message was being delivered.

This led me to begin researching delivery methods and looking at how best to reflect the workplace within my classroom and school. I had experimented with simulated environments at my own school however I realised that more could be done and found it difficult to find programs to study within NSW and Australia. This led me to the West Virginia Simulated Workplace Program in operation.

**Focus**

The focus of my tour was to look at how the West Virginia Department of Education had implemented simulated workplace structures within its vocational educational system and ascertain how this had impacted all major stakeholders.

I chose West Virginia as my study tour destination as their program was only in its third year and I felt the reflections and experiences of all stakeholders involved in the creation of the program would be more ably recalled than for a program that had been running for some time. That is successes, failures, obstacles and solutions would be more vivid and thus of greater use to me in setting up my own simulated environment.

While in West Virginia, I:

* interviewed and had many informal consultation sessions with Dr Kathy D’Antoni who is the driving force and instigator of the Simulated Workplace program in West Virginia
* spent many days with Mr Clinton Birch who is the Simulated Workplace program coordinator. Mr Birch is the liaison between the West Virginia Department of Education and all schools delivering vocational education that are using the Simulated Workplace model.
* visited schools delivering vocational education courses using the Simulated Workplace model
* interviewed teachers and students from schools using the Simulated workplace model
* observed students and teachers in classroom settings.

*Note from 2016 it will be compulsory for all schools delivering vocational courses in West Virginia to use the Simulated Workplace model.*

This report will be divided into Five sections:

1. Why Simulated Workplace came into being in West Virginia
2. Similarities and differences between NSW and West Virginia
3. How Simulated Workplace Operates
4. Teacher Student and Employer Outcomes
5. NSW trial Model

**Why Simulated Workplace came into being in West Virginia**

As in Australia the USA at this point in time has a shortage of skilled workers across many trades and allied skills areas. For decades the main focus of the American education system has been on the completion of high school and the progression into college. This has often seen vocational education as a second best option for students where in reality many students are better suited to vocational courses and the alternate methods of delivery they provide.

West Virginia has a high unemployment rate however shale gas is beginning to create employment opportunities and the overall economy for West Virginia is improving. It is a fact that West Virginia is the smallest state in the USA however has the highest drug use and drug deaths of all states.

Student engagement with vocational subjects was poor and many students did not see them as valid pathways to a sound future.

Employers through meetings with Dr D’Antoni put the case forward that they could not get employees that could turn up on time and pass a drug test. It was through these employer interactions that Dr D’Antoni formulated the plan to put in place a program that mirrored workplace settings.

Parents were concerned that their children were not accepting the opportunities and security that trades and allied skilled workers could have as the vocational pathway was not attractive to them.

**Similarities and differences between NSW and West Virginia**

Australia and NSW have a skills shortage and the main focus of the HSC has predominantly been the pursuit of academic goals. NSW has recently changed the school leaver’s age from 15 to 17. This has forced many students who may have left school previously to stay on and has resulted in many disengaged students as many are simply marking time until they can leave schools.

Many students choose vocational subjects as they seem to be the most attractive option yet when they begin class the delivery method is very similar to the other academic subjects they have done in the past. These have given them little success and even less engagement. This was also true for West Virginia until the introduction of the Simulated Workplace program.

The program was overseen from a state level yet all funds were devolved to individual schools thus ownership could take place at the school level this is similar to the RAMS model of funding now in place in NSW.

VET students in NSW have to undertake seventy hours of work placement over the two years of their course however this is not required in West Virginia. However having been a VET teacher qualified in four curriculum frameworks for the past fifteen years, many of the work placements I have seen my students participate in were far from being the educational and motivational time they were intended to be. In contrast the simulated environment in West Virginia created all of the elements you would want to see in a work placement.

Perhaps the other main difference between the two states is that for students to get into their VET subject they need to submit the equivalent of a job application and resume and undergo an interview exactly as if it were a real job. Teachers and students sit on the interview panel to create a real environment and to give authenticity to the process.

**How Simulated Workplace Operates**

The Simulated Workplace program is guided by the twelve protocols listed below. I have included a link to the [Simulated Workplace 2015 manual](https://drive.google.com/a/education.nsw.gov.au/file/d/0B_B6W17yVwhGbnYyNFVYRUhtTVk/view?usp=sharing) here so the reader is able to see the protocols explained in the official document. Below I will explain how I saw each protocol in operation through my observations and try to give insight into their impacts across a wide variety of settings.

* Protocol I: Classroom Environment
* Protocol II: Attendance
* Protocol III: Random Drug Testing
* Protocol IV: Application / Interview
* Protocol V: Company Name & Procedures Manual
* Protocol VI: Safety
* Protocol VII: Company Meetings
* Protocol VIII: Data Reporting & Student Evaluations
* Protocol IX: Teams & Organization
* Protocol X: 5S Continuous Quality Improvement
* Protocol XI: Business & Industry Onsite Review
* Protocol XII: Student Portfolio

**Protocol I: Classroom Environment and Protocol V: Company Name & Procedures Manual**

The basis of the Simulated Workplace program is to have each delivery site create a virtual company with all of the courses delivered at that site sitting under that company's umbrella. This is to facilitate students taking ownership of their own simulated workplace. Each course then creates its own company name and structure. This may vary from year to year to accommodate different student groups and to allow for student input. This begins to change the nature of the learning space from one of a classroom to a workplace.

For example at Spring Valley CTE (Career Technical Education centre) the construction teacher in conjunction with the students formed the Rebel Construction Company. All students had equal input into the creation of the company name, logo and mission statement. This created virtually one hundred percent buy in to the concept from the students. The state provided money to have shirts printed or embroidered with the company's logo. Whenever the students were in class they wore this as their uniform. Students also had to clock in and clock off from their classes.

Students were then given real world practical based group projects to work on that required sound collaborative, time management and problem solving skills. At each school I visited there was little or any evidence of student disengagement or teacher frustration at student work levels. The most common quote from teachers was that by delivering in this method they felt guilty of doing nothing as the students were working so well that little teacher input was required. The teacher had become a facilitator that now had the time to help students individually rather than dealing with off task issues.

Each company creates a procedures manual that informs students of their roles and responsibilities within the company. This is to mirror real life as much as possible.

**Protocol II: Attendance**

Students were required to clock in and out from their class/workplace each school had purchased a time clock system for every VET classroom and from my observations and discussions with staff and students this has produced many changes in behaviour, all of a positive nature.

Students stated that they felt like they were actually at work and that it no longer felt like a classroom. They also felt that they were being treated as adults and that if they needed to be out of the room they could do so and be trusted by the teacher. I was told on several occasions by students that they had ran back to clock off from work as if they had not they would not receive any credit for the work they had done that day. Students also stated that when they applied for part time work it greatly help as they had already demonstrated they could turn up and finish on time with records to prove it.

Teachers also stated that attendance had improved as they believed students thought they were more accountable. I posed the question of what happens if a student is their but does not clock on or off. In this case students were marked present on the school roll yet as in the eyes of the company they were considered absent and all work they performed that day they were not given credit for. When talking to the students regarding this they thought it was totally fair as that's how it worked in industry.

**Protocol III: Random Drug Testing**

This protocol was implemented with wide consultation and was considered heavily. America has a great history of fighting for civil liberties and having a basic right to privacy however after consulting employers, parents, teaching staff students and the community in general it was considered essential for the success of the program given West Virginias current problems with drug use.

Initially students were wary of this measure however at this point the pendulum of opinion has swung the other way and every student I spoke with considers this protocol essential with many students asking to be drug tested so they can present their results to employers as proof they are responsible and take their chosen paths very seriously. It often comes down to teachers explaining to students that the tests are random and everyone can't be tested.

**Protocol IV: Application / Interview**

Before being accepted into a course a student must submit a job application similar to what would take place when applying for a normal job. On speaking to students they felt it gave them a real advantage over students that had not gone through the process when applying for other jobs and it added more reality to their learning experience. It also started them down the path of having a CV that had been through a good test.

Senior students sat on the interview panels as well as class teachers. Having students sit on the interview panel also added weight to the process in the eyes of the applicants as when they saw their peers involved they were more likely to buy into the simulated workplace concept

**Protocol VI: Safety**

Safety at every stage was stressed and was built into courses at the onset and was specific to how it would look in that industry. However rather than being teacher driven the workplace safety culture was student driven and each student had to at some stage during their course be a safety officer within the company and present a lecture to their company. The lecture topic was to be of the student's choosing and must be specifically related to their industry.

This resulted in the students taking safety more seriously as at some stage it was their responsibility to police the company environment and they also had to research into their chosen topic and this created more depth to their knowledge.

I had a conversation with a teacher who had a student that was struggling with the construction content but upon taking on the roll of safety officer, flourished and found that this area was where he wanted to proceed with a career. This student became so involved that he regularly took it upon himself to give extra safety briefings and researched far more than the curriculum required.

**Protocol VII: Company Meetings**

Company meetings were perhaps the most valuable tool for the students that I spoke to. All of the students had a say in how they thought the company was progressing and had input into change and the implementation of new procedures and ideas.

This was truly a fully functioning work environment where all participants felt included and listened to. The meetings took on the structure of proper company meetings and the regular roles set within the company and roles outlined within the simulated workplace manual.

Student participation in this activity was exceptional as they were all included.

**Protocol VIII: Data Reporting & Student Evaluations**

A great deal of thought has been put into the method of reporting data and evaluating student progress Dr Cherie Nash was brought in from The University of West Virginia to build a method that would quantify the students learning and convert all of the activities taking place within the simulated workplace to give a dollar value that could show all of the students how their company had progressed.

This was based around many factors including outcomes achieved, accident free days and attendance. This is quite a complex task and at this point was still undergoing change as is most parts of the program. However this reporting and evaluation was of prime importance to students as they were able to see if their company was making money and if not pinpoint areas for improvement that could be discussed at meetings.

**Protocol IX: Teams & Organization**

Each simulated company had to implement a structure under which to operate and was different at each site I visited. However that being said many of the roles were the same the structure simply reflected local conditions and the roles students felt were needed within their companies. The roles were negotiated at company meetings and approved by the CEO (teacher) each student got to have time in the various company roles for example safety officer, quality control, information officer.

Students valued these roles and the structure as it gave them ownership of what was happening within the company. After rotating once through a role students found their niche within the company and were happy to work in that role.

This approach also helped students to more readily adapt to working life as they had already been immersed in the culture and structure of a workplace but in a secure safe environment.

**Protocol X: 5S Continuous Quality Improvement**

As opposed to many classrooms within NSW, students were asked every day how they could continuously improve on what they had done the day before. This was done in a collaborative, safe friendly non threatening environment that could not help but create an environment that was continuously improving student outcomes.

This was done through the 5S system. Every classroom I visited had at least one 5S poster on display and more often than not one on each wall. These posters reminded students that they had to continuously think about what they were doing and if they could improve. The message was the same across all courses. How can we get better.

The 5S process is explicitly taught and I personally believe that it was beginning to make students look at not only how they worked in their companies on improvement but how they could improve their lives in general by applying basically the same principals.

**Protocol XI: Business & Industry Onsite Review**

Business is heavily involved in the creation, implementation and ongoing support of the simulated workplace program. Business in West Virginia has had a great deal of input into the program at all stages and is perhaps one of the defining features of the program.

I did not have the pleasure of being on a review visit but having spoken to teachers and students the process is one of support and collaboration to once again continuously improve on outcomes being delivered.

The process was not one that was seen as threatening but one where what was being done could be showcased and assessed.

**Protocol XII: Student Portfolio**

These student portfolios differed from many other student portfolios I have seen students create. When looking at students portfolios it was evident that each student had a great deal of pride in their company as they had invested so much intellectual capital into it. This was reflected in the quality of the portfolios I saw being put together.

Each student had created a document that outlines how they have fitted within the various roles of the company and displayed what they were capable of. Each portfolio I viewed was of a very professional standard and each student could quite happily present it at interview time to a prospective employer.

**Student Teacher Employer Outcomes**

**Students**

Not one student I interviewed stated they would prefer to be taught in the traditional classroom manner. In fact every student I spoke with spoke about how hard it was to be in classrooms that did not reflect the real world and did not value their contributions to its running. One quote from a student was particularly poignant, she stated that when in workplace simulation class she felt valued, heard, safe and wanted. All of these things were not prevalent for her in life out of school and only in this program. She freely admitted that she had been heading for a rather disastrous future and all her learning in the past had been difficult and strained at best.

The results of students have improved with every school involved reporting less absenteeism, behavioural issues and far greater student engagement. To see students interacting in the manner you would expect to see employees in a well run company was quite amazing. These students had wholly taken responsibility for their learning and were moving forward at a much faster pace than previously classes had moved.

**Teacher**

Every teacher I spoke to without exception said that this model of delivery had without a doubt improved their classroom practice and the educational outcomes for all of the students involved. Students were energised and engaged and really took ownership. Also each teacher also said that the most difficult part of the process was giving over of control to the students and standing back and letting them take over. This process was explicitly taught to all teachers during professional development days however was still difficult for most. Many teachers also noted that they at times felt guilty of not doing anything as the students were in control and the learning was flowing so well.

West Virginia Education and the Simulated Workplace program has quite a tight regulatory regime not unlike that in place for schools to comply with RTO requirements however teachers were now able to better cope with these due to the freeing up of time that previously was taken up by behavioural and off task issues. Students also as part of their company roles managed part of the regulatory requirements.

**Employers**

Employers have part ownership of this program as it is they who are directly affected by the quality of the young people coming to them for employment. It is for this reason I believe they are so strongly involved, during my time in West Virginia I saw students that upon completion of their course would be suitable for employment immediately.

At the John D Rockefeller the 4th CTE centre one employer was heavily involved with the setting up of the diesel mechanics course. They donated old parts and a broken down prime mover and were crucial in the foundation of the program. This employer has gone on to now state that any student passing the course will be employed by them if they seek a job there.

**How Simulated Workplace Could Look in NSW**

The education systems within New South Wales and West Virginia are very different however the students, parents, teachers, administrators and employers are together in wanting the same outcome. That is to have a learning environment that is stimulating, welcoming, supportive and conducive to authentic learning within the VET context.

Apart from the mandatory random drug testing aspect of the Simulated Workplace program all other aspects are easily adaptable and fit within the framework courses that are currently being delivered within NSW and would greatly enhance the work already being done in VET delivery within NSW.

Each protocol mentioned within my report has been well researched and crafted to suit the needs of students and teachers in particular over the life of the program to date. A change in the current delivery method of many VET teachers would be needed and would require support at the classroom level to be effective.

The benefit that would be added to the current mandatory work placement hours embedded within each framework course cannot be understated as the students would be embarking upon work placement having been immersed in a virtual work scenario from the onset of the course.

**Summation**

I believe that the Simulated Workplace program has transformed career and technical education in West Virginia and this is evident by the amazing attitudes of both students and teachers working within the schools. That the same transformation could take place within NSW in my view is achievable and perhaps necessary for the continued relevance and growth of quality vocational education within NSW.

The active engagement of the whole community in the Simulated Workplace program is something that is to be envied and admired. I have begun to implement the strategies I have witnessed on my tour to good success within my classroom. Already students are attending more and taking a greater role in the running of the classroom.