Premier’s Xstrata Coal Rural and Remote Education Scholarships

Promoting Retention and Engagement: Applying the US Career Academy Model to Trade Training Partnerships in NSW

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Introduction

In response to the NSW Government’s 2009 legislation announcing that the leaving age for students be raised from 15 to 17 years of age, secondary schools have attempted to develop strategies catering for those students, who would not otherwise have chosen to return to school.

This has presented particular challenges for schools in rural and remote locations, where curriculum offerings in the senior years of schooling are necessarily limited by factors such as small student cohorts, availability of appropriately trained staff and access to industry training opportunities. There is an urgent need to provide access to relevant and engaging curriculum, catering to a breadth of student interest and ability which links closely with local businesses.

Innovative vocational education programs such as the Federal Government’s *Trade Training Centres in Schools, NSW Trade Schools programs* and the integration of the former *Australian Technical Colleges* into NSW secondary schools, give senior secondary students access to high quality, industry standard facilities and training, allowing students to remain at school whilst progressing towards a trade qualification.

In addition many schools offer a flexible curriculum structure to accommodate training programs which allow students to complete a school based traineeship or complete the first year of an Australian School-based Apprenticeship (ASbA) in conjunction with their Higher School Certificate. This complements the array of vocational education and training (VET) and TAFE course options which are available in many schools, although they are often difficult to access in in rural and remote communities. Such opportunities have the potential to add significantly to the qualifications, credentials and employment options available to young people in a community affected by distance, rural decline and social and economic disadvantage. Relevant, engaging and high quality curriculum offerings are the key to promoting the retention of students in meaningful educational settings up to and beyond the 17 years leaving age.

In the USA there exist approximately 7000 **career academies**. These academies are small learning communities within larger high schools. Career academies focus on training students for a wide range of occupational fields and establishing links with local community and industry networks. In California a comprehensive network of school partnerships has been developed to focus on the role that career academies play in the retention of students to the completion of 12th grade and matriculation to college degree programs.

Focus of the Study

This study tour explored the potential for NSW schools to emulate a model of small, career-focused learning communities within larger school settings, promoting student retention and engagement. Connections with Career Academy experts from an array of school settings, the California Department of Education and university academics were utilised to investigate the success of the US model, the range of industry areas covered by academies and any current issues facing the academies. The study tour also provided the opportunity to attend the National Careers Academy Coalition 15th Annual Conference and make comparisons between our respective educational contexts.

Significant Learning

The University of California (Stern, Dayton & Raby 2010) reports that the first career academies were developed to focus on ‘dropout prevention and vocational preparation’ but quickly embraced programs preparing students for college and university courses too. The first academy was established in Philadelphia in 1969. Edison High School collaborated with the Philadelphia Electric Company to develop an ‘Electrical Academy’. The concept was rapidly adapted to encompass diverse trade and career fields in other high schools.

Career academies are usually small learning communities within large high schools which provide a program of study for students typically in Grades 10-12. They have three main features:

* + 1. Academy students take classes together and are taught by a team of teachers;
		2. The curriculum is developed as a college preparation program around a career theme, to help develop connections between academic disciplines and their application in a career pathway; and
		3. Strong partnerships with industry and the local community provide the opportunity for students to engage in workplace learning or internships and promote the use of mentors to support students.

The breadth of career academies is extensive and differs from the traditional trade focus of most vocational programs in NSW. A small sample of career academies in California includes Medical and Health Sciences, Technology, Media and the Arts, Green Technologies and Sustainability, Law and Justice, Architecture and Engineering, Automotive Technology, Business, Education and Marine Sciences.

Reportedly there are over 1 million students in the US in career academies within high schools. The most common model of academies are called ‘pocket’ academies in which a school will offer a small number of academies in a range of fields whilst a model of ‘wall to wall’ academies can be found in a small number of schools in which every student in a school belongs to an academy.

Carl Wunsche Senior High School, Texas, is an example of a purpose built ‘wall to wall’ academy high school which draws enrolments from a range of high schools in its local district. It has three strands: Professional Tower, Technology Tower and Medical Tower Academies, which allow a range of career areas to be covered by the teams of teachers working in each tower. A student described the school as “more like a workplace environment than a school”. Although the results from this school appeared very impressive the lack of transferability of the model to the NSW context meant that a focus on the ‘pocket’ academy model for this study was more appropriate.

According to the *College Tools for Schools* website, career academies “promote connections: among subjects, between what goes on in school and outside it, and between high school and what comes after.” Studies indicate improvements in attendance, retention, grades, graduation rates, and employment. In California, the focus area for this study, the state legislated to support career academies through the establishment of the California Partnership Academies (CPAs) in 1984. Dayton, Hester and Stern report in the executive summary of their report on the *Profile of the California Partnership Academies, 2009-10* that:

* + The attendance rates for students in CPAs was higher than state average;
	+ Significantly higher 12th Grade graduation rates are attained by students in CPAs. In 2009-10 the rate was 95% compared to a state-wide average of 85%; and
	+ Most CPA seniors plan to attend a community college or four-year college after school. In 2009-10 57% of CPA students completed courses required for admission to the University of California or California State University compared to 36% for all students.

These results are particularly impressive when the selection requirements for students to participate in a California Partnership Academy are considered. By law, at least 50% of prospective students must meet three of the following six criteria: poor attendance, significantly behind in their studies, demonstrating low motivation, economic disadvantage, low state test scores or having a low grade point average.

California Partnership Academies are assisted with funding from the state provided that they meet selection and organisational requirements. In addition, school districts and local businesses must make contributions equal to the state grant, although these can be in-kind contributions such as mentoring, internships, speakers and as advisory board members.

Attendance at the National Career Academy Coalition Conference *Career Academies: from Foundation to Innovation* in Anaheim*,* California, allowed the opportunity to learn from academy experts and leading researchers as well as participation in workshops from schools across the US. The National Career Academy Coalition provides professional development activities for teachers, administrators, business representatives and school district staff to support the establishment and success of career academies.

Following the conference a series of school visits was undertaken across California to observe firsthand the impact, success and issues faced by career academies. The support of the California Department of Education in assisting to organise these visits and provide advice as the visits progressed was greatly appreciated and was fundamental to the success of the study tour.

The school visits clarified that several factors were required for the ongoing success of ‘pocket’ career academies within high schools. These include:

* The need for strong support from the school administrators. The attitude of the Principal is fundamental to the success of the academy and the way it is viewed within the school community. The timetabling of a team of teachers within each academy can tie up the structure for all staff so a commitment from the senior executive is needed to balance competing demands. Such a commitment was evident from the Principal of Grant Union High School in Sacramento who, through a philosophy of ensuring all teachers teach for understanding and all students have a strong college focus, is providing an environment in which students from a predominantly low socio-economic community are enabled to achieve.

In contrast, a visit to a school in a large regional setting revealed that a new administrator had closed down two academies within the school and was unable to support the timetabling needs of another academy, thus preventing the team approach fundamental to the success of academies. The morale of the lead teachers in the academy was clearly affected.

* Succession planning for the replacement of staff with specialist skills. Many career academies visited were staffed by teachers or assistants with skills that were acquired in previous career situations. Examples include an ex-police officer and a former assistant district attorney working in a criminal justice academy, a former welder in a metals academy and a former dental hygienist and veterinary technician in a medical academy. Many administrators expressed concerns about their ability to replace specialist staff whilst others believed the academy would be able to cope with their eventual loss.
* Lincoln High School’s architecture, building and construction academy is an example of an academy with a strong focus on succession planning. The lead teacher, who is a former Californian Teacher of the Year, has developed a strong team of teachers and has strategically, brought in younger teachers to complement the experience within the team.
* The ability of the academy to source additional funding for their programs. Many of the staff interviewed during visits identified ongoing funding as an issue for the survival of the academy. This was particularly evident in those academies which relied on specialist equipment and had high consumable demands such as the metals, construction and relatively new green academies. Laguna Creek High School’s Green Energy Technology Academy is an example of a successful academy in which the lead teacher actively sought funding opportunities to support the provision of expensive equipment for his program. He has been successful in obtaining funding from energy companies to support student projects in the production of biofuels and solar electricity. A strong humanitarian focus of the academy has resulted in self-funding projects such as the construction of portable solar battery rechargers for use in third world countries.

The issue of continued support from state funds has provided some uncertainty for many schools. With current tight financial constraints in California schools are increasingly under pressure to constrain their budgets. It was reported that funding for two hundred of the nearly five hundred academies in California was currently under review and some would lose this funding.

* The positive culture developed by committed staff within the academy. The outstanding enthusiasm and dedication of the teachers involved in all the academies visited was clearly evident. Students in one particular academy said they appreciated and enjoyed the team approach to the delivery of the curriculum. They identified that the academy staff became significant mentors and provided a crucial welfare role in supporting them through their senior studies.

Activities and clothing were provided to promote a sense of identity for students in the academy which helped develop a strong sense of community. This was exemplified in the Medical Education and Research Academy at McLane High School, Fresno, where students in the senior class indicated that the class was “very focussed and committed, but everyone wanted to help each other succeed”. This culture has clearly been evident for some time as several students indicated that their selection of the medical academy was partly influenced by the perception that students in the academy were more focused on their education.

The use of past students as role models for current students was widespread within the schools visited and was seen as a powerful influence upon the college and career aspirations of students. The willingness of students to return to their high school to volunteer in classes highlights the value placed on the academies by past students.

* The support of local businesses in the operation of the academy. Lead Teachers at all academies visited noted the vital role that local businesses play in the support of the academies. Many businesses provide internships and workplace learning opportunities for students. Although internships are not mandatory as they are in NSW curriculum frameworks courses, most academies support students to link with businesses thereby providing real work opportunities for students. A large hospital near McLane High School provides a rotational system for students in the medical academy to gain access to a wide range of medical occupations. Students are well prepared by the academy teachers to ensure that they can perform basic tasks such as checking vital signs and taking medical histories so as not to rely on shadowing to gain experience.

A very innovative enterprise involving a close relationship with a business partner was evident at the McLane Business Academy in which students operated a branch of the Union Bank within the school. Ten senior students were selected by the teachers and Union Bank staff to be trained by the bank to become bank employees. The Union Bank provides the office fittings, equipment and also a supervisor to be present during the opening hours. The branch is available for all students and staff at the school. Students are paid for the hours worked and in addition will receive a scholarship from the bank upon graduation. The bank is also committed to providing part time employment for the graduates whilst they are studying at college. The bank supervisor advised that the Union Bank will be opening a second branch in another school based upon the success of this academy.

The afore mentioned factors necessary for successful career academies could equally be seen as crucial elements for a successful vocational education and training program in NSW schools.

During the school visits several issues more peculiar to the US mode became apparent. The first is an ongoing debate amongst educators about the difference between students being career ready versus college ready. It is a requirement of career academies to ensure that students are completing an academic program which will prepare them for access to a college education; however there appears to be some debate about the skills necessary for a student to be career or college ready. This was highlighted by several administrators who identified the negative parent perception that career academies “track” students into career fields instead of understanding that the skills and experienced gained from career academies are transferable across careers. Many teachers talked about the ‘soft skills’ and 21st century skills such as self-esteem, time management, teamwork, research and the use of technology that are greatly enhanced through career academies. One teacher who stated that “no student has a true choice until they have been accepted into a college” perhaps best encompasses the philosophy behind career academies.

The second issue concerns the method of selection of students to participate in academies. This process varied widely from school to school and indeed from state to state. As outlined previously California Partnership Academies are required to select at least half their students from ‘at risk’ categories. Most academies visited allowed students free choice to join academies and appeared unconcerned by the requirement. It was widely felt that the demographics of most academies visited, which were predominately from low socio-economic communities, would ensure compliance without vetting students.

The third issue concerns the determination of which focus area new academies should target. It was evident from discussion with school personnel that most existing academies grew from successful programs previously operating in the school or from the expertise and commitment of a staff member, rather than an identified skills shortage. The Director of Career Technical Education with the Fresno Unified School District indicated that their school district had identified this as an issue and was trying to be more strategic in future planning. Costa Mesa High School and its neighbouring school Estancia High School have also taken a more targeted approach by surveying student interests and ambitions to identify the need for a medical academy to be established at Estancia.

Although these three issues are important for career academies in the US they do not have implications for NSW schools as our schools are not bound by the same regulatory requirements.

Conclusions

The study tour highlighted that the career academy model in the US has many similarities with the vocational education and training program in NSW schools. Although facilities observed during the study tour were first class they were similar to facilities being developed through the *Trade Training Centres* and *Trade School* programs in NSW, there are additional features of the academy model that would benefit our schools.

The extensive range of focus areas for career academies is appealing to students and is far broader than the trade dominated choice available in NSW. Recent progress by schools in NSW Western Region of the Department of Education and Communities to develop vocational programs in areas such as Nursing and Early Childhood Education are a positive step to address this situation.

The added requirement that academies focus on college preparation in addition to career readiness would be of benefit to raising the esteem in which vocational frameworks courses in NSW are held. At present the optional Higher School Certificate examination and category B status given to these courses by the Board of Studies and the University Admissions Centre do not allow for the development of programs of study in courses such as Metals and Engineering which directly lead to university admission. In contrast there are students at the University of California Berkeley in the Mechanical Engineering program who are taking extra classes in welding technologies at the local community college in order to be more successful.

The factors identified in this report contributing to the success of career academies; namely strong support from school administrators, succession planning to replace key personnel, ability to source additional funding, strong culture and identity for career academy students and the support of local businesses are equally important for a successful vocational education and training program in NSW schools. The size of US schools and their access to large businesses, even in rural areas is difficult for NSW schools to replicate, however the current support for NSW schools to explore alternative structures provides an opportunity to learn from a successful model - US career academies.

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