Applied learning educators searching for a pedagogical model


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Chapter 30

Applied Learning Educators Searching for a Pedagogical Model

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ABSTRACT

Australia, like many nations across the globe, has a focus on engaging young people in the post compulsory years of school to ensure their transition into further education, training and/or the workforce. Applied Learning programs which are based on the premise of active, transformative learning from authentic experience have emerged as valuable tools in assisting the transition of young people. Understanding of Applied Learning however, not only varies between nations but also disciplines, context, education settings and curricula. Using a lens of boundary crossing, this chapter draws on research data to provide an account of challenges educators face in an Australian program where there appears little guidance for educators on constructing an Applied Learning pedagogical model for individual practice. From consideration of data and educational theory an Applied Learning pedagogical framework is proposed as a guide for educators in developing Applied Learning programs.

INTRODUCTION

This Chapter draws from research on the workplace learning experiences of educators delivering an Applied Learning program in a post compulsory setting. The discussion argues that arming Applied Learning educators with a range of relevant (to the context, cohort and curriculum) pedagogical tools is vital if their use of Applied Learning approaches is to be successful in engaging students in meaningful, authentic learning experiences and the Applied Learning programs they work in are to flourish. Many Applied Learning programs appear to be based on a premise of active, collaborative learning supported and facilitated by reflecting on authentic experiences. There appears however little guidance for educators on how to construct or interpret a pedagogical model for individual practice. This discussion uses the lens of boundary crossing to provide an account of challenges Applied Learning educators face in an Australian program. To assist teachers who

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move from teaching in one field (or curriculum) to teaching in an Applied Learning program, the discussion concludes by suggesting an Applied Learning pedagogical framework. In doing so the framework incorporates existing teacher tools to construct a boundary object.

Discussion begins by identifying and contextualising the Applied Learning program within senior school pathways and arguing why the learning needs of the educators delivering the program warrant exploration. A brief explanation of the methodology used in the research design follows. Data is then provided as evidence of learning continuities and discontinuities the educators face. This includes their preparedness (or lack of it) to teach the program, differences between this and other programs and educators’ desire to better understand the theoretical premises of the program. As a result of considering the implications of the data and drawing on a range of educational theory a pedagogical framework is proposed to guide educators’ development of Applied Learning teaching and learning programs. The chapter concludes with suggestions for future research approaches.

BACKGROUND

Like many governments across the globe Australia has a focus on engaging young people in the post compulsory years of school to ensure their transition into further education, training and/or the workforce. Applied Learning has emerged as a valuable engagement tool in a range of contexts.

The understanding of Applied Learning varies in and across nations and settings (Victorian Curriculum Assessment Authority, 2011; Harrison, 2006; Shacklock, 2006; Malyn-Smith, 2004). Even within this Handbook of Applied Learning Theory and Design in Modern Education there will be contradictions, discontinuities and tension regarding what applied learning is. One reason for this may be because there appears a lack of literature exploring theoretical underpinnings of Applied Learning. Despite a lack of identifiable literature relating to Applied Learning as theory a summary of a range of contexts where reference is made to using Applied Learning follows. Frustratingly most do not necessarily explain how Applied Learning is understood within that context.

The term Applied Learning is frequently used within Higher Education settings in the United States of America, Singapore, Australia and Canada in relation to courses that include workplace learning components which are completed with industry partners or other authentic learning contexts (Philomin 2015, Corpus 2015, The Evening Sun 2015, MWSU 2014). Such opportunities provide learning relevant to the industry (or vocation) students intend to enter. Bryant University in the USA has recently upgraded teaching space to promote collaborative learning (including installation of video conferencing links), rather than traditional lecture approaches. Underpinning these changes is an intention to connect students to companies such as ‘Target’ to solve real industry problems by applying learning (Daddona 2015).

Other Higher Education providers such as the University of North Carolina in the United States of America offer and promote programs which focus on community partnerships and engagement or value service learning associated with workplace experience (Port City Daily 2015, EKU 2012).

Value is also given to the importance of Applied Learning in compulsory schooling years that connects learning in classrooms to real life applications as preparation for industry vocations, particular in relation to STEM (Science, Technology, Engineering and Mathematics) (Keegan 2015, Ronayne 2015, Zia 2015).

In countries such as New Zealand, Qatar, Hong Kong, Australia, the UK and Canada Applied Learning is seen as means of supporting development of higher order thinking (eg problem solving) in compulsory and post compulsory schooling, vocational training and emergency services training (Chambers 2015, Forward 2014,

Applied Learning in countries or contexts mentioned above appears to be valued and promoted as a positive point of difference (to other learning). Not all understandings of Applied Learning however appear positive. In Ontario (Canada) there is an example of a low perception of Applied Learning due to a belief that ‘applied’ courses lead to failure and poor job prospects (Rushowy 2013). It is not known if the perception that ‘doing something’ manually does not result in rich authentic learning experiences is widespread within Canada.

While understandings and application of Applied Learning may vary between countries, education sectors and settings, several themes reoccur. Teaching and learning involves applying theory to practice in authentic contexts such as workplaces to solve real life problems. Applied Learning teaching strategies include collaborative learning approaches. Often the Applied Learning programs promote development of social capital. Reflection on learning is encouraged in order to activate transformative learning that is, learning which can be drawn on, adapted and applied in other settings and contexts.

**Victorian Post Compulsory Education and Training Pathways**

In Victoria school attendance is compulsory until the completion of year 10, “up to age 17 they [young people] must continue in approved education or be in full-time employment” (State Government Victoria 2015, para two). Subsequently Post Compulsory in the following discussion includes years 11 and 12 regardless of whether undertaken by a registered school, ACE or TAFE provider.

In 2000 the Victorian state government initiated a ministerial review into the state’s Post Compulsory Education and Training pathways (Kirby, 2000). At that time there was one academic certificate¹ available for students in years 11 and 12 of school, but it had become apparent the certificate was unable to support and cater for diverse learners and diverse learning pathways. As a result of the ministerial review Post Compulsory Education and Training policy was revised and structure of existing pathways amended to include development of an additional pathway in the senior years of school, the Victorian Certificate of Applied Learning (VCAL). The VCAL program is a pathway designed to support school completion by providing vocational or work-ready skills to those who do not necessarily intend to go to university.

As suggested by the name of the program, Applied Learning teaching and learning approaches are integral to delivery of VCAL.

The existing qualification, the Victorian Certificate of Education (VCE), continued to be regarded as a traditional pathway to university. The learning that occurs in VCE is frequently theoretical (academic).

As previously indicated understandings of Applied Learning vary between contexts, disciplines and settings. In order to understand the basis on which this Chapter generates discussion, it is important to outline the pedagogical intent and the way Applied Learning is understood in the VCAL program.

The Victorian Curriculum and Assessment Authority (VCAA)², the authorised body overseeing schooling in the Australian state of Victoria, developed the VCAL program and determined the following eight Applied Learning principles to guide providers of the VCAL curriculum in delivery of the program

1. **Start where learners are at.**
2. **Negotiate the curriculum. Engage in a dialogue with learners about their curriculum.**
3. **Share knowledge. Recognise the knowledge learners bring to the learning environment.**
4. **Connect with communities and real life experiences.**
5. **Build resilience, confidence and self-worth – consider the whole person.**
6. Integrate learning – the whole task and the whole person. In life we use a range of skills and knowledge. Learning should reflect the integration that occurs in real life tasks.


8. Assess appropriately. Use the assessment method that best ‘fits’ the learning content and context (VCAA, 2011a, p. 1)

Learning and developing knowledge and skills through authentic experiences, including work placements, is a key component of the VCAL program (VCAA 2013). While it is evident that a range of educational theories by those who argue a strong connection between experience and learning inform the Applied Learning principles, connection to the work of John Dewey is particularly evident (eg Dewey, 1938).

Many years ago Dewey cautioned that learning from experience is dependent “upon the quality of the experience which is had” and warns against the pitfalls if an education program or approach is not properly developed or structured (1938 p.16). His warning is apt for both reasons in regard to the VCAL program. Unfortunately there is often a lack of consultation with teachers in the introduction of new education programs (Chalmers & Keown, 2006; Welch, 2007; Connelly & Clandinin, 1999; Brew & Leder; 2000). This may also be the case in the development of the VCAL program as teachers who were to deliver the program do not appear to have been consulted during development (Knipe, Ling, Bottrell & Keamy, 2003).

A challenge for many educators can be how to transfer the VCAA principles (or the educational theory which underpins them) into professional pedagogical practice. Dewey recognised challenges in converting principles into practice many years ago...

... all principles by themselves are abstract. They become concrete only in the consequences which result from their application. Just because the principles set forth are so fundamental and far-reaching, everything depends upon the interpretation given them as they are put into practice in the school and in home. (Dewey, 1938, p. 6)

Similar concerns are not confined to the introduction of the VCAL program. Others have said...

... while those involved in educational reform and change spend much time effort and money on the form of innovations, the functional aspects of proposed changes are often neglected. Thus while the organisational structure, the expectations for student achievement and even pedagogy associated with reform is often relatively clear, the reasons for the change along with the concepts and philosophies underpinning new approaches are often poorly understood. Cohen (1995:13; cited in Bednarz 2003) notes that “unless they [teachers] learn much more about the subjects they teach and devise new approaches to instruction, most students’ learning will not change (Chalmers and Keon, 2006, p. 147 citing Bednarz 2003)

The passage is relevant to the introduction of the VCAL program where it appears many educators are either not aware of, or are struggling with, “concepts and philosophies” on which Applied Learning pedagogy is based. Subsequently, while some educators might thrive in an Applied Learning environment, creating and embracing their own form of Applied Learning pedagogy to positively influence educational outcomes for young people, other educators struggle in transitioning their practice into the unfamiliar space of the VCAL program. This may be because they are not given direction in how to adapt their pedagogical practice and / or they may be unable (or unwilling) to change their practice. The result (as noted by Cohen above) is that “students’ learning will not change”.
APPLIED LEARNING EDUCATORS’ LEARNING NEEDS

This Chapter draws on data from a qualitative case study of Educator workplace learning in the context of the VCAL program. As previously stated the VCAL program prepares young people for work by incorporating recognised vocational certificate training into the curriculum along with a focus on development of employability and citizenship skills (VCAA 2014). Some have argued that education “reproduces existing social, economic and cultural relationships” (Nesbit, Leach & Foley 2004, p. 79). Programs such as VCAL however can be transformative for students allowing them to break free of environmental predisposition to generational unemployment and resistance to accepting the rights and responsibilities of citizenship. Another strength of the VCAL program is the aim to develop generic transferrable workplace employability skills such as organisation, communication, problem solving and team work (VCAA 2013).

Students may choose to undertake components of both VCE and VCAL programs (including recognised Vocational Education Training (VET) qualifications). It should also be noted the VCAL program allows the possibility for students who undertake particular combinations of VCE and VCAL to continue to selected university courses (VCAA 2014a). This is dependent on whether the level of study and subjects they have undertaken meet the prerequisites of the university course. This possibility reflects the academic rigor of senior level VCAL.

Following discussion is also informed by experience working in the Graduate Diploma of Education (Applied Learning), a one year pre-service teacher course, at Deakin University. Students who successfully complete the Graduate Diploma of Education (Applied Learning) are awarded a qualification which enables them to teach in the middle and senior years of secondary school. Applied Learning pedagogy is used to deliver the course. Delivery approaches within the course model how pre-service teachers might use teaching strategies in their own professional practice. The Graduate Diploma of Education (Applied Learning) course is one of the few teacher preparation courses that specifically include meaningful explanation of Applied Learning theories into its curriculum. Unfortunately many educators who teach in the VCAL program have not necessarily undertaken this, or a similar course as preparation.

Researching VCAL Educators Learning

While the research data identifies a range of challenges that VCAL educators faced, discussion in this chapter is related to consideration of educator comments regarding preparedness to work with a pedagogical approach quite different to their experience in other programs. Two of the main differences between VCAL and other curricula are the curriculum content (negotiated and developed with student interests in mind) and the associated evidence based assessment (Schulz 2012). Additionally the cohort who undertake VCAL have a concentration of characteristics that are challenging or at risk of not transitioning into further education, training and/or the workplace (Henry et al., 2003; Pritchard & Anderson, 2006; Harrison, 2006; Blake, 2009).

There are a number of commissioned reports that focus on the implementation of the VCAL program (Walsh et al. 2005; Henry et al. 2003). Those commissioned reports call for greater support for the program and the educators who work in it, especially in regard to resources and arming VCAL educators with the knowledge and skills to teach both VCAL and Applied Learning. This does not appear to have happened (Schulz, 2012; Schulz, 2011; Pritchard & Anderson, 2006; Harrison, 2006; Walsh, Beeson, Blake & Milne, 2005; Knipe, Ling, Bottrell & Keamy, 2003). There has also been criticism regarding the lack of “review of the outcomes” of VCAL (Broadbent & Papadopoulos, 2013, p. 299; KPMG 2009, p.39).
Subsequently there is little impartial critical research available regarding the learning experiences of VCAL educators and no identifiable literature on construction of an individual pedagogical approach to the VCAL program. This chapter supplements available Applied Learning literature.

**VCAL Educators Boundary Crossing**

Akkerman and Bakker refer to boundary crossers as professionals whose workplace duties require them to move from familiar to unfamiliar territory (2011). It is useful to represent VCAL educators as boundary crossers because the term represents the nature of VCAL educators’ work as they professionally move in a diversity of spaces within and outside their organisation (Akkerman & Bakker 2011). Educators are not necessarily familiar with, or prepared for, working across those spaces. Their movement across a range of teaching and learning spaces is required to facilitate development of VCAL programs resulting in optimum opportunities for authentic learning possibilities. Subsequently VCAL educators frequently intellectually engage with unfamiliar knowledge spaces as they support and guide their students in undertaking tasks and activities within learning projects (e.g. some projects may involve construction, small business, and/or negotiating council regulations). Discussion of how VCAL educators navigate the familiar and unfamiliar in their everyday workplaces to guide and support the learning experiences of their students is addressed in work separate to this Handbook.

Later in this chapter a framework is suggested, which, if activated, may provide bridging support for educators in the construction of VCAL or other Applied Learning practice.

**Gathering the Data**

Interviews were conducted with 27 Applied Learning educators in the settings in which the VCAL program is delivered, being schools, Adult Community Education and Technical and Further Education. Open ended questions were used in order to elicit stories of the professional learning experienced by Applied Learning educators as they either began, or continued to be, Applied Learning educators. A thematic analysis was used to interrogate the data (Braun & Clarke 2006).

Significantly, while educators mentioned Applied Learning teaching strategies on which they drew, there was no reference by participants to using specific pedagogical frameworks. On the contrary some educators stated they tussled with what Applied Learning was and how to teach it. When asked how they learnt to be an Applied Learning educator, participants frequently responded they learnt by doing it and by drawing on previous experience. Despite their struggles the participants appeared to persevere. A selection of data from the research project is presented in the following sections. The data represents three of the themes identified: how prepared educators were to cross boundaries from teaching one curriculum to teaching VCAL, discontinuities they identified in the process of boundary crossing and the efficacy of boundary crossing objects they accessed.

**How Prepared Are VCAL Educators to Cross Boundaries**

Since the introduction of the VCAL program in 2003 (trialed in 2002) preparation to teach in an Applied way is not necessarily provided to teachers before they begin teaching, planning or delivering content. Only a small number of
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university teacher preparation courses currently include comprehensive consideration of Applied Learning theories and approaches.

The teaching experience of the interviewed VCAL educators ranged from two – 20 plus years. While some had completed teacher training which included study on Applied Learning, most had not. Some ‘fell into’ VCAL, some chose VCAL and others were teaching it unwillingly and frustrated by how it had been introduced into schools. Steff a VCAL coordinator indicated

*If I had a choice – I wouldn’t do [teach] it. I certainly believe in the philosophy. I don’t think introduction into schools has been well done. I don’t think its acceptance in schools – and I know that takes time – but even now five years on we are still battling to get a lot of that acceptance.*

Steff went on to say:

...no one is prepared they [the teachers] have four years of degree program to teach in a secondary school, which doesn’t cover VCAL and they are put into VCAL and there is nothing and I am doing my best to try and support these teachers with limited stuff myself...

A number of educators bemoaned their lack of specialist preparation for teaching VCAL. Sue said:

...there was no preparation [for teaching VCAL] during my teacher education training. I reckon I have learnt best as I have been doing it ... nothing I learnt at uni has anything to do with the real world...

This was not an isolated comment. Another educator Sadie, when asked how prepared she felt to teach VCAL replied:

Yes, well I wasn’t very well prepared at all. You have to be very flexible so that you can go where the students are interested. I’d just like to know how to teach applied learning basically...

She wasn’t the only one to have a poor experience. Niles said:

*I believe coming out of our [teacher preparation course] and walking into classrooms – especially in the ACE sector that [it is] a little bit like sending soldiers into a war zone [after] giving them three weeks of intense training and expecting them to know how to fight...*

Lengthy experience as a teacher does not necessarily provide knowledge of the VCAL program. Susan was a teacher of 17 years’ experience at the time of the interview and had been in her school since 2006. At the end of 2010 her coordinator said to her “Oh- I’d love you to teach VCAL” Susan replied “Oh ...what’s VCAL all about”?

The Coordinator was looking for someone a little bit quirky .....I’m not a disciplinarian .....not everyone can work in VCAL ... I try and build relationships with the kids... Thank goodness I had 15 years teaching experience before teaching VCAL!! BUT ... I feel I would have liked to go to some seminars or see what people are doing at other schools...

At one provider which delivers predominately VCAL curriculum, has established industry partnerships and curriculum tasks are provided for educators there was still uncertainty expressed by new-to-VCAL educators. Pierce said:

... to be honest – I’m a little unclear at this stage as to what all the VCAL units are – ‘cause they [are] mapped into the work we do into the curriculum – this is my first year teaching in this environment in a VCAL setting and to be honest it still seems very convoluted to me which units are hidden in there – or that type of thing ... whether I just haven’t picked it up along the way and it has been taught – or in terms of taking in so much information in this role because it is new in a lot of different ways – I am still unclear about VCAL – but I think there is an expectation that you will
just sort of pick it up along the way. Which to be honest – I feel full [of information] from the start of the year as it is…

Later in the conversation Pierce appeared ambivalent when he expressed the opinion that:

…the experience in it is the teacher of it I suppose…

Peter had taught in a range of curricula, had range of life experiences and been a VCAL educator for about 7 years. It was evident from his comments he had navigated through feelings of uncertainty and unfamiliarity and constructed personalised (if unarticulated) boundary crossing objects to aid in his own practice. His own boundary crossing had developed to the extent that VCAL had become a familiar, comfortable space and Peter appeared to have forgotten the challenges involved. While responding to various questions about the differences and challenges in teaching VCAL however he suddenly paused and said:

The more I am having this discussion the more I am thinking how damned hard it would be for a graduate teacher to teach VCAL.

Sally summed up the feeling of a number of educators when she said:

… there is no preparation for VCAL teachers and I think that is great shame…

Sally however also challenged the schools to be mindful of the needs of the VCAL curriculum when they employed teachers

When they [schools] are employing people they are still employing straight academic people and tending to not want to employ for this area [VCAL], but it is a big growth area in the school … and they are not employing the people that fit these positions…

These comments provide a snapshot of feelings of ill-preparedness to teach VCAL. The next section provides a selection of data that represents some of the discontinuities that educators may experience or identify which inhibit or prevent their ability to move from a familiar to an unfamiliar curriculum space.

Discontinuities at Curriculum Boundaries

Most secondary teachers in Victoria graduate from their teaching courses with two method areas, these method areas can be regarded as defining teachers’ ‘field’ of expertise. (Hobbs 2014). Akkerman and Bakker indicate that boundaries are a space which connect “two or more sites” that are “relevant to one another in a particular way” (2011, p. 133). In the case of teaching in VCAL, the educators move through boundary space/s from one teaching expertise to another when they teach in the VCAL program. Griffiths and Guile use the term “zone of proximal development” to describe similar learning spaces (2003 p. 61). This explanation works well in considering the boundary crossing of VCAL educators who are “undertaking actions which are embedded in activities whose object and motive is not learning as such” (Griffiths & Guile 2003, p. 61). VCAL educators’ development is “horizontal” in that they are required to “mediate between different forms of expertise” rather than being able to solely draw on their existing knowledge and teaching skills (Griffiths & Guile 2003, p. 61). It should be noted that non-school providers of VCAL may employ personnel with a range of appropriate vocational and teaching qualifications. As a result not all educators who teach VCAL are necessarily trained teachers and subsequently the complexity of their individual boundary-ed spaces may differ.

Additionally there are a number of differences between teaching in the VCAL program and teaching in other senior years programs. The dif-
ferences represent discontinuities that may inhibit or prevent boundary crossing by VCAL educators. Some participants were new to teaching, some had previously taught primary, VELS or VCE. A number of the research participants were currently dividing their teaching time between two curriculums and so were reflecting on the differences they encountered in ‘real time’.

Natt was teaching in both VCAL and VCE when interviewed:

*In VCAL more than anywhere else rapport is important … in my VCE class the students are self-motivated and see a future for themselves and the learning will take place regardless of their relationship with me… in this cohort [his VCAL class] there is a concentration of young people who struggle with self-esteem, self-image, self-belief and self-consciousness…*

Niles comments also concerned the cohort of young people that he worked with and acknowledged that previously tried strategies may not necessarily work:

… you can’t take all the classroom management [books and theories] in the world into THIS classroom [VCAL classroom] because it simply doesn’t work….you need to earn respect and earn those relationships - you definitely can’t demand it because these sort of kids will just tell you where to put it basically…

Preston made the following comment about his experience in teaching in VCE and VCAL:

… in [VCE] this is the curriculum, that is it – [the students] will go with it because that is it whereas these VCAL kids if they don’t want to do it – they won’t do it! And if they can see that you are prepared to give a bit your way – they will do the same. Because they are good kids – they just want you to see a bit from their point of view as well…

Sindy was also teaching both VCAL and VCE programs when interviewed and also made comparisons:

… in this [VCAL] class … I have five students and I have five learning needs to cater for – last year I had 19 students and 19 very different learning needs … in VCE there might be groups of students who have a particular learning need… preparing lessons is just not straightforward.

Sue’s comments also focused on the difference between the two main senior school pathways, she said:

*I feel really sorry for people who have been teaching mainstream secondary school and get put into VCAL because they are trying to adapt the VCAL curriculum to teach it the VCE way or the mainstream way and I think that you just can’t do it.*

For Stacey who had been a school principal with hands on involvement in VCAL the difference between VCAL and VCE was that VCE was about:

… pushing people – funnelling them towards a zone where they can answer questions on the exam, practice, practice, practice, spoon feeding skilling them – funnelling them into a narrow zone where they fit the paper… with VCAL it is the opposite - you take a group of kids and you open up as wide as you can the possibilities from their skills and the interests they have and you take them in as many directions as you can … perhaps a convergent and divergent model – that is conceptually how I think about it …in practice I find VCAL much more exciting[than VCE], but hard, hard work if you have kids who are lacking motivation.

Natt firmly believed being able to teach, or experience to teach other curriculum was not necessarily adequate preparation for teaching in the VCAL program:
The same way that someone who has taught English in a secondary school for 25 years or 50 and then teaches maths, it’s a similar dichotomy teaching VCE and then teaching VCAL and I don’t think there is any appreciation of that… by many in the teaching profession itself.

While Peter believed that given time anyone could teach VCAL he conceded that … it’s not for everyone … it requires a larger skill set…

Sindy included a similar comment during her interview I don’t think everyone can teach VCAL and provided a reflective narrative to explain discontinuities she experiences as she moves from her VCE to her VCAL classrooms during her teaching day. She thinks when her VCAL activities miss the mark it is often because she is in her VCE mode, didn’t plan properly, or read the group well.

I might have gone in there thinking ‘oh I’m really interested in this. I’m going to do it today, even if it kills me’. If it doesn’t work, sometimes it can be where they [the students] are at as well, they are the troublesome kids, they’ve been naughty all the way through secondary school. They are the kids on uniform detentions, the kids on academic detentions, they have got really low self-esteem. It might sound cliché but it is so true, they just fall into that group. Often their personal appearance [is not good] they are not out there winning popularity competitions. There are some great kids though, but they don’t fit into that mould. Sometimes they have brought their baggage to class and I could have done the most amazing lesson and it would have gone pear shaped anyway. It is hugely different [to VCE] because the kids - it is an eclectic mix of learners in the classroom and it is definitely … I would have experienced an eclectic mix of learners in VCE but it would be more subtle – here it is more prominent. I think in VCAL – we pride ourselves at the school at catering for differentiated kids but the problem is that we have differentiated right up to year 10 and suddenly we think ‘oh no exams and then end of the day you have to get this body of kids up to scratch to do the exams [VCE] [later we agree that she means VCE is curriculum driven]. For VCAL I think that it is more prominently eclectic you are dealing with very fragile egos - it can be quite draining for me at times as many of them don’t want to be there or they have sort of felt pretty pathetic about school for all of their life.

The discontinuities, the differences at the boundaries of VCAL, can impede teachers’ ability to transition into unfamiliar teaching spaces. In some cases the discontinuities prevent educators making the transition into the VCAL space. Phil who was teaching at a school at the time that VCAL was first being introduced:

We were one of the first [schools to introduce VCAL] and at the time the guy who was in charge of running VCAL – he pulled the pin on it during the year because he had no idea what he was doing. He had no resources, he was given no guidance and it just all sort of became too much for him. Because it was too – apparently it was stressing him out too much and it was putting him under a significant amount of workload and I think he had been back and forth to the principal and said that if the issue wasn’t addressed he would go off on sick leave.

In this case it wasn’t only the educator who did not boundary cross, it appears that the school struggled to understand the differences in the curriculum and comprehend the particular needs and support that the curriculum demanded. Phil continued:

… [the school] didn’t run it [VCAL] for a year and then we reintroduced it a year later … we had a specific VCAL coordinator and then we had a
VCAL team of teachers - and in its infancy there I still don’t think that they were properly resourced and look the VCAL Coordinator was a librarian and they basically made his job in the library non-existent. He had a history teaching background. So they kindof said – there you go do that! Two of the other VCAL were the year 12 and year 11 coordinators at the time so that was the team. So there wasn’t a whole heap of resources time and effort put into them and ... into developing the staff to teach it.

There could be a number of reasons for unsuccessful attempts to boundary cross by educators, including individual personality, preferences and comfort zones. Gaining new professional tools are also important in helping adapt to new practices and curriculum. An introduction to, knowledge of and/or familiarity with VCAL pedagogy is one tool that might moderate feelings of discontinuity when beginning to teach in the VCAL program. For that to happen however VCAL providers must be proactive in understanding the potential for discontinuity/ies and the need for providing appropriate support to both the program and the educators.

Looking for Pedagogy

A number of participants in this study were unsettled by working with the VCAL curriculum, particularly in regard to Applied Learning pedagogy. As previously indicated, VCAL pedagogy differs from what some educators may be familiar. When that unfamiliarity impacts on educators’ ability to cross from teaching one curriculum to another a discontinuity appears.

When Pierce was asked how he had ‘got his head around the Applied Learning aspect of VCAL’ he responded:

Well not really, and I guess part of the problem with where I am at the moment is understanding all the terms and where they fit in, So when you say Applied Learning what do you mean?

It becomes evident from clarification of this comment that Pierce is managing to teach in the program because his organisation has provided him with the curriculum and content. It is possible in Pierce’s context for the organisation to anticipate the interests of the students (in accordance with the first principle devised by the VCAA for Applied Learning) as the VCAL program revolves around a particular sports theme. Students enrol in a program with a sports theme that interests them.

Pierce was asked how it would impact on his becoming a VCAL teacher “if that [curriculum content] wasn’t given to you”. He responded:

... it would be a nightmare, it would be very challenging, very challenging, I think you just need more training, just need to spend the time sitting down and understanding the program more and planning and I think that was one of the things we didn’t have a lot of in time at the start of the year, to sit down and plan a little bit, but that is offset by the fact that you have that curriculum in your hand a little bit, on a silver platter sort of thing.

Pierce was not alone in volunteering that the concept of Applied Learning as a pedagogy was unclear. Others commented that it had not been addressed in their teacher preparation. Natt a trained teacher said:

In my graduate course last year it was like a meaningless term [Applied Learning] – they mentioned it as if to tick off a box. For the [job] interview I had to read up on it from the VCAA [Victorian Curriculum Assessment Authority] website and other online sources. I still kind of don’t… turning the learning outcomes into entertaining practical assessment I still don’t think I’ve been doing a good job ... I have been looking on the internet to see what teachers in other schools are doing. There still aren’t a lot of resources on line…for the VCE I teach there are a wealth of resources on line. I have heard of the principles of Applied Learning but ask me to say any of them and I can’t…
Pierce and Natt weren’t the only ones. Sindy who had been teaching VCAL for several years, was not specifically aware of the principles of applied learning – although she was aware of the type of tasks that could be regarded as applied learning. When the VCAA resources were mentioned Sindy good naturedly indicated that she would follow up Applied Learning principles and the VCAA website immediately after the interview.

Sadie had graduated as a teacher nine months before the interview and was teaching in VCAL. She had already identified that educators need to be very flexible so they can go where the students are interested. One of her more pressing concerns though was:

I’d just like to know how to teach applied learning basically.

When teaching in a school setting Phil was asked at the end of a year if he would like to teach VCAL. He indicated that he was:

… really under prepared didn’t know a lot at all about the course and the way it was structured and how it fitted into students getting a qualification … I really had to prod and poke and find out as much information from as many people as possible about VCAL.

Neither did Phil feel he had an understanding of Applied Learning at the time he began to teach in VCAL. Some of the people Phil approached for help were the VCAL staff within his own school, but:

I sort of found that even the VCAL teachers or the coordinators weren’t particularly helpful. I felt they didn’t have a really good grasp at the time of the whole concept of it. [instead] I was able to sit down with a lit teacher who taught it before and she gave me a lot of material which I used … she was helpful in giving me curriculum in terms of ‘this is what I do for this’ and ‘this is what I do for that’ but couldn’t really expand on it any more than that so yeah … and I am normally pretty inquisitive so I can only imagine someone who had to take it on for the first time who didn’t know much about it … how they would battle and struggle with it.

A successful VCAL program requires appropriate resources (people, funding, opportunities and ‘things to do things with’). Along with resources a necessary professional tool for individual VCAL educators is an understanding of, and ability to incorporate, Applied Learning pedagogy into their teaching. It was apparent that not all educators were able to do this.

**Boundary Crossing Tools**

Wenger asserts that that boundary crossing is made possible in two ways (1998). Firstly by the use of boundary objects “artifacts, documents, terms, concepts and other forms of reification around which communities of practice can organize their interconnections” (Wenger 1998, p. 105). The second way he believes boundaries are crossed is by “brokering”, that is the introduction of “elements of one practice into another” (Wenger 1998, p. 105). Wenger’s notion of “brokering” appears similar to Griffiths and Guile’s perception of boundary crossing, as it involves a process of “horizontal development” (2003 p. 61).

Within the data there was evidence to support both of these views. That is not to assert however that the boundary crossing was effective, efficient or smooth.

While some educators struggled, it became apparent that others brokered or mediated their way across the boundary from one practice to another. To do this they drew on personal attributes, skills and knowledge they already possessed. Noel said:

I left school at year 10 and I guess that sort of taught me how these kids think a lot – because I didn’t cope very well with school, I was more into...
sports and so I guess being a creative thinker I am able to find different ways to meet their needs. Most of the kids here drop out of school so their needs are very much like myself and they don’t like sitting in a classroom too much and I don’t like sitting in the classroom, so I think I am able to find creative ways to meet [their needs].

Sadie identified that among her own developed skills, those of:

… budgeting, using public transport, time management, being flexible and adaptable…

linked very neatly to the Employability Skills Framework (VCAA, 2013, p. 16) and subsequently were drawn on in devising projects and activities in the VCAL strands of Numeracy and Work Related Skills.

Sally a VCAL coordinator said:

I have had experience as a welfare coordinator and have always been interested in students who have not been able to achieve fully in a school, I have also a qualification in special education and have worked with integration kids…

Interestingly Sally indicated she had attempted to reduce the impact of boundary crossing on VCAL educators by her choice of staff. Sally said that when new VCAL teaching staff were needed:

I hand pick my VCAL teachers – as the Coordinator I get a little bit of leeway with that and they are teachers that you feel are sympathetic to the cause and work well with students that don’t like sitting in their seats and writing copious notes and they are teachers that are a bit more user friendly with students who learn in a different way – so I try and hand pick the teachers that are interested in this area, but as far as PD [professional development] there is virtually not a lot around, it is a real indictment on the system.

As a mechanism of coping with the lack of preparation, support and ongoing professional development some VCAL educators look deeply into their own professional ‘tool-box’. An emerging suspicion of this approach was clarified in one interview by asking ‘…you are making it work only because of your background and who you are, not so much what you have been given to prepare you by the Department…..?’ Sara had no hesitation in confirming the clarification. Sara went on to say:

I took it on knowing that I would have to prepare myself….I drew on my own learning strategies.

It is acknowledged some educators are able to cross the boundary into VCAL because they find it a more familiar and comfortable curriculum and teaching approach than the one they had been using. Preston said:

… when you are in schools everything is so structured and then VCAL and VET … give you that bit of flexibility but it is hard you have got to almost move yourself out of that mould [of structured curriculum]… to get you thinking laterally and outside the box … which I felt a little bit starved of … whereas here I just felt that opportunity for creativity and things like that I want to teach what is real life and interesting…

It is not reasonable however to suggest that only educators comfortable with the flexibility of the VCAL program will teach it. It is more likely that views will reflect that of Perry who did not find adapting to VCAL easy:

… one area that I personally find difficult about the VCAL is that flexibility. I’m probably more, I wouldn’t say rigid, but I like a little more structure.

It was apparent some VCAL educators rely on adapting knowledge they already have and responsive ‘on-the-job learning’ to assist in
For VCAL educators however, learning on the job *without structure* does not necessarily create a sustainable and transferable boundary object which can be accessed and used on an ongoing basis by the wider community of VCAL educators to transition into teaching the VCAL program. It is argued that to optimise the potential for effective Applied Learning teaching and student-learning-centred learning to occur educators are best served by coming to the classroom with previously acquired (or prepared) boundary crossing objects. Such tools optimise the potential for effective teaching and learning to occur.

**When Is a Boundary Object Not a Boundary Object?**

Worryingly it appears that 11 years after state wide introduction of the VCAL program, many educators remain uncertain (and some unaware) of the resources available, including the VCAA’s guiding principles of Applied Learning. Neither are educators necessarily conversant with the processes involved in how to develop curriculum that is ‘Applied’. It could be inferred from the data that there are limited or no boundary crossing objects for VCAL educators to access to support the program or their teaching. That is not the case.

A range of boundary objects are available to support providers and educators. The VCAA is the authoritative source for all VCAL procedures and information. Documentation regarding the VCAL program is freely accessible at [http://www.vcaa.vic.edu.au/Pages/vcal/providers/index.aspx](http://www.vcaa.vic.edu.au/Pages/vcal/providers/index.aspx). Resources on the website include all the documentation required for providers and educators, including the curriculum planning guides containing the required Learning Outcomes and exemplars of completed Quality Assurance templates.

VCAL management staff are readily available and contactable by both providers and VCAL educators. The Victorian Association of Applied Learning® (VALA) in conjunction with the VCAA provides a VCAL induction day at the beginning of the school year. The VALA conference, held during the middle of the school year, is a professional development day for Applied Learning educators. Additionally VALA runs other professional development activities for VCAL educators on a regular basis throughout the year.

It should also be noted however that a critical boundary crossing object ceased at the end of 2011. Until that time schools had been receiving funding for VCAL coordinators to assist in the provision of the program. The VALA statement released at that time criticised the removal of the funding by highlighting VCAL coordination is frequently complex,

> … requires extra student support systems, cross subject area planning and organisation, as well as the establishment and maintenance of community and work related links. All this requires coordination above and beyond normal teaching and assessment processes (2011, para. 2).

Successful VCAL programs are resource intensive due to a student-learning centred approach. Curriculum content (activities and tasks students complete to meet learning outcomes) changes from year to year to adapt to the needs and interests of the changing cohort. Subsequently for many providers this creates tension between optimising the effectiveness of student learning resulting from undertaking the VCAL program and optimising the efficiency of using resources across the curricula they deliver. It can be challenging to achieve both effective learning and efficient resource use. Schwartzman writes

> … embracing efficiency can sacrifice effectiveness. The reason lies in the very definition of efficiency. Assuming the definition of efficiency
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as the ratio of input to output, one quick way to raise efficiency is to deliver the same results while reducing investment in resources such as personnel, facilities, and equipment. While outcomes might resist improvement, input in the form of time, money, or other resources can be cut quickly. Doing the same with less earns a higher grade for efficiency (2010, p.5-6).

The allocation of adequate funding to support educators in delivering an effective student-learning centred Applied Learning program is an important boundary crossing object.

Boundary crossing objects aid in boundary transitioning (Akkerman and Bakker 2011). According to the data, a number of educators struggle to transition into the unfamiliar field of teaching VCAL curriculum. Subsequently while a number of objects are available to VCAL educators they have not necessarily been accessed / activated or are not meeting educators’ needs and are thus not acting as boundary crossing objects. This appears to reflect Wenger’s warning that “[b]oundary objects do not necessarily bridge across boundaries because they may be misinterpreted or interpreted blindly” (Wenger 2000 p. 236). It may also be the case that management within VCAL providers do not understand the need to support their staff in accessing boundary crossing objects, as they do not understand that teaching in VCAL is similar to teaching out of field (Hobbs, 2014).

Critiquing existing boundary objects and / or determining ease of accessibility of boundary objects is not within the scope of this chapter. Instead a response is provided to a need identified within the data, and voiced in differing ways by Pierce, Natt, Sadie and Phil as to what Applied Learning is and how can an understanding be constructed by educators.

The rationale for this response is twofold. The first reason is that, like their students, VCAL educators learn in different ways and have differing teaching styles. Subsequently existing boundary objects don’t necessarily respond to all educators’ needs. The second reason relates to examination of VCAA documentation and attendance at a range of VCAA and VALA sponsored professional development days with the specific intention of considering the data against the range of available boundary objects. Boundary objects presented or sign posted at these professional development events provide a range of information on what to do, but don’t necessarily address deeper theoretical questions of why it should be done a particular way and how to enact Applied Learning teaching approaches.

The remaining discussion draws together the VCAA principles of Applied Learning and related educational theory to suggest a pedagogical framework. In doing so it shows the relationship between the various framework components. The framework is offered to extend the choice of available boundary crossing objects available to VCAL educators. It is also offered to demonstrate one way of aligning existing teaching tools to support boundary crossing.

APPLIED LEARNING PEDAGOGY AS A BOUNDARY OBJECT

There are differing interpretations as to the constitution of boundary objects (Jewson 2014). This supports the assertions of Star and Griesemer who say that boundary objects can be nebulous in nature, for example either inhabiting spaces either side of a boundary at the same time or alternatively acting as a bridge (1989 pp. 412, 414). In conceptualising and suggesting a boundary object it suits the purposes of this discussion to draw on Wenger’s typology which uses the classifications of artefacts, discourses and processes (Wenger 2000 p. 236). To reduce the likelihood of misinterpretation the proposed framework is intentionally expressed in conceptual terms, rather than prescriptive, so as to highlight relationships between, and provide examples of, various components of the ‘art and science’ (pedagogy) of
teaching in an Applied way. This is intended to support educators in engaging with the intent of the VCAL program through negotiated curriculum, creativity and flexible assessment.

**Creating Continuities**  
**Bridging Boundaries**

The following section does not claim to include an exhaustive representation of the learning theories and strategies available for selection by educators in developing applied, authentic learning programs for students. It does however provide a catalyst which can be extrapolated for individual approaches. Note the following suggestions draw on VCAA (2013, p.2-5) guidelines regarding delivery and delivery modes of the VCAL and do not dismiss, challenge or replace them.

Holloway and Gouthro have indicated that many students in teacher education courses “are unwilling to invest time in learning theory, even at graduate level” (2011, p. 30). Subsequently while teachers are regarded as having knowledge of learning theory, many may not have engaged in a meaningful way with understanding how to incorporate learning theory into a pedagogical approach, what that might look like in practice and how it can be transferred from one curriculum to another.

Latham et al emphasise the importance of theory in professional teaching practice by saying

\[ \text{... the role of pedagogy, that is, the teaching and learning philosophies and theories that guide teachers’ practice, is fundamental when discussing the way you will address questions of relevance and purpose in education. (Latham et al 2006, p 10)} \]

Consideration of teaching and learning philosophies is also fundamental in constructing a framework for teaching.

Theories considered for inclusion in a VCAL Applied Learning framework must characterise the VCAA principles of Applied Learning (2011a).

Applied Learning considers student interests and abilities; supports students sharing knowledge with each other and collaborating with others in authentic settings; caters to individual learning styles; allows for a range of assessment approaches; and is based on authentic experiences, including workplace settings.

The following section provides a synopsis of a range of learning theories which support these characteristics. This is done in response to Wenger’s warning that constructing a perspective of learning without “reflecting on our fundamental assumptions about the nature of learning” can result in “an increasing risk that our conceptions will have misleading ramifications (1998, p. 9). The following section provides some fundamental assumptions about the nature of Applied Learning.

**Educational Theories Characterising Principles of Applied Learning**

The VCAA principles of Applied Learning are grounded in research based, peer reviewed educational theory. The VCAL program also incorporates “adult learning and youth development principles” (VCAA, 2013, p. 2).

Experiential learning is a key theory underpinning development of the Applied Learning approach in VCAL. A range of educational theorists argue strong connections between experience and learning and the importance of incorporating appropriate and meaningful experience into education (Dewey, 1938; Foley, 2004; Freire & Macedo 1996; Marsick and Watkins, 1990; Pratt, 1993; Tripp, 1987; Berlack & Berlack, 1981). Experiential learning can also include the results of informal and incidental learning (Marsick and Watkins, 1990). Learning through experience should be relevant to the society students live and work in. Gonczi argues that “learning is developed through doing, through acting in the world” and the social learning process occurs “in the communities of practice in which we work and live” (2004 p. 30). Wenger believe that learning should be centred “in the context of our lived experience
of participation in the world” (Wenger, 1998, p. 3). Experiential learning connects to the fourth VCAA principle of Applied Learning, to make connections with real life experiences (VCAA 2011a).

Using a range and variety of Communities of Practice as settings for learning infers that learning occurs from interaction within and experiences across, the environment students live. Using Communities of Practice also supports the third and fourth principles of Applied Learning, to share knowledge and connect with communities (VCAA 2011a). Frequently the Communities of Practice students participate in may result in

... in shared (collaborative) problem-solving between the novice and more experienced worker. Collaborative problem-solving of this kind is viewed as being more important for individuals’ construction of knowledge than the transmission of knowledge from one individual to another through direct teaching (Billett 2001 p. 19 citing Collins et al. 1989; Rogoff 1990, 1995; Resnick et al. 1997)

As a result VCAL learning can take place in a range of social settings where students interact with the wider population such as: home, hobby groups, sporting groups, school, community partnership settings and the workplace.

The incorporation of situating students within structured workplace settings in VCAL is supported by

... long-standing evidence of the efficacy of learning in the workplace. Prior to the establishment of vocational colleges and universities, most people learnt their vocations through their work (Billett, 2001, p.19)

Structured workplace learning reinforces the social, negotiated and collaborative nature of Applied Learning regardless of whether the young person is participating in legitimate peripheral participation, acting as an apprentice or co-participating as a bricoleur (Lave & Wenger 1991). Varying degrees of collaborative support also encourage optimum student learning within Vygotsky’s Zone of Proximal Development (ZPD), the gap between their independent learning ability and their learning ability with support (Vygotsky, 1978). Vygotsky’s theory of ZPD is incorporated within VCAL by development of the four skills strands at three qualification levels – Foundation, Intermediate and Senior (VCAA, 2013). At Foundation Level “students learn under close supervision with high levels of direction”, at Intermediate Level “learning is reasonably autonomous in regards to planning and work activities but conducted under supervision”, and at Senior Level “learning is autonomous in regard to planning and work activities but conducted under supervision” (VCAA 2013, p. 1). Students (regardless of their age or year level) undertake a qualification level commensurate with their abilities (their own ZPD), subsequently the structure is compatible with the first principle of applied learning, “start where learners are at” (VCAA 2011a, p 1).

Just as VCAL educators need to cross boundaries to teach the curriculum, student learning undertaken in workplaces requires students to cross boundaries and “mediate between different forms of expertise and the demands of different contexts… In this sense, [as already indicated in regards to VCAL educators] boundary crossing involves negotiating different zones of proximal development” (Griffiths & Guile, 2003, p. 61). These experiences also contribute to developing employability skills and attributes such as problem-solving, common-sense and initiative. Promoting the development of these life and work skills is one of the intentions underpinning the VCAL program (VCAA 2013).

Dewey is at pains to point out that the “belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative”. He goes on to say “[f]or some experiences are mis-educative” (1938, p. 13). This comment suggests some experiences
Applied Learning Educators Searching for a Pedagogical Model

do not promote and connect to further experience. His caution is important as research has shown how identity and decisions are shaped by past experiences and environments (Goodson 1991; Tripp 1987, Freire & Macedo 1996; McLaren 1989; Thomas 1995; Berlack & Berlack 1981). Subsequently poor education experiences may flavour students’ future ones.

Learning from experience is dependent “upon the quality of the experience which is had” (Dewey 1938 p. 16). The challenge and responsibility of the educator is to

... arrange for the kind of experiences, which, while they do not repel the student, but rather engage his activities are, nevertheless, more than immediately enjoyable since they promote having desirable future experiences (Dewey, 1938, p. 16)

Additionally, enjoyment of the learning is not, on its own, a basis on which experience can be considered learning. Experiential learning activities are effective when they act as building blocks placed in a thoughtful formative manner, each block laid providing a pathway and point of reference for the next one (Dewey 1938, p. 14).

Participation and observation of learning activities do not necessarily result in learning, “[we] have to understand the significance of what we see, hear and touch” and what the possibilities of the learning experience are (Dewey, 1938, p. 79). Subsequently while many students in classrooms may have ‘learning experiences’, they do not necessarily connect with and lead to “further experience” (Dewey 1938 p. 16). In the VCAL program the incorporation of regular, meaningful reflection is critical in transforming student experience and activities into learning which can be transferred into other settings and situations.

Emphasis on the component of reflection within the experiential Applied Learning process is supported by Ash and Clayton who believe

Applied learning pedagogies share a design fundamental: the nurturing of learning and growth through a reflective, experiential process that takes students out of traditional classroom settings. The approach is grounded in the conviction that learning is maximized when it is active, engaged and collaborative (2009, p. 25).

Along with reflection, other teaching strategies used to deliver VCAL curriculum should support the intent of educational theory which underpins the VCAL program. Using a range of teaching strategies that cater to different learning styles supports the seventh principle of Applied Learning which is to promote diversity of learning styles (VCAA, 2011a). Critically, the use of a range of teaching methods both supports students in mediating their own learning, and acts as a boundary crossing object available for use by VCAL educators.

Teaching Strategies

Gardner’s theory of multiple intelligences argues that individuals have particular ways in which their learning predominately occurs. Among the intelligences he describes are verbal, kinesthetic, musical, logical, self-awareness and by interaction with others (Gardner, 2011). Students may be strong learners in more than one of the intelligences. Incorporating a range of teaching strategies into experiential learning activities maximises likelihood of learning occurring. For example offering students who are strong in linguistic intelligence (which focuses on words and language) oral presentations or written responses to tasks supports the seventh and eighth principles of Applied Learning (VCAA, 2011a). On the other hand students who are strong in bodily kinesthetic intelligence (learning through movement of the body) might benefit from assessment options involving construction or physical
demonstrations. Offering visual learners options to creatively respond to assessment tasks in the form of design or interpretation would support their spatial learning style.

VCAL programs are encouraged to be integrated (incorporating a range of the skills strands) or project based (VCAA 2013). Teaching strategies used by teachers to deliver content should be reflective of both educational theory and demonstrate characteristics of VCAA Applied Learning principles.

Subsequently teaching strategies such as group work, oral presentations, reflective journals, debates, using Information Technology, role plays, photo stories, organising events (e.g., fundraising activities), research projects, workplace learning, working as mentors with younger students and designing solutions to problems are examples of available options.

Importantly teaching strategies should consider the level of development of students by allowing them to work at their own pace and abilities.

Visualising Applied Learning as a Pedagogy

van Manen (1999) provides a definition of pedagogy as being an art and science of teaching (also cited by Loughran, Berry, Clemans, Lancaster & Long, 2008, p. 3). This definition establishes and reflects a strong relationship between the ‘how’ and ‘why’ of teaching. As van Manen says

Central to the idea of pedagogy is the normativity of distinguishing between what is appropriate and what is less appropriate for children and what are the appropriate ways of teaching and giving assistance to children and young people (1999, p. 14).

Subsequently Applied Learning pedagogy brings together two components. First, appropriate Applied Learning educational theories (the science of teaching - why curriculum is structured in a particular way). The second component consists of Applied Learning teaching strategies (the art of teaching - how curriculum is taught) which support the enactment of those educational theories.

The following proposed Applied Learning pedagogical framework constructs a visual representation of the relationship between components of Applied Learning educational theory and Applied Learning teaching strategies. This can also be regarded as bringing together Gardner’s terms of ‘know what’ (theory) and the ‘know how’ (learning strategies) (2011).

An Applied Learning pedagogical approach focuses on provision of student-learning centred learning. In constructing a pedagogical framework educators engage with, and draw on, established educational theories which acknowledge and prioritise authentic student-learning centred tasks and activities. In doing so the framework incorporates a strong foundation of the science of education which both characterises the VCAA Applied learning principles and promotes participation by students in authentic, experiential learning. Table 1 provides a representation of the framework foundation.

Once educational theories which support an Applied Learning approach while prioritising the learning of the student have been considered, appropriate Applied Learning Teaching strategies can be selected and developed. In doing so, the strong foundation of educational learning theories (the science of teaching) supports the arts of teaching (the ways in which teachers convey content to their students and provide learning opportunities). Table 2 provides a representation of Applied Learning teaching strategies firmly situated within, supported by, and relating to, educational learning theories.

Together appropriate educational theory and teaching strategies support a focus on student-learning centred teaching and learning.

However, as highlighted by several research participants, in VCAL more than any other curriculum, rapport is critical to successful learning.
Table 1. Foundation of applied learning pedagogical framework

<table>
<thead>
<tr>
<th>Reflective teaching practice</th>
<th>Research based, peer reviewed education theory</th>
<th>Reflective teaching practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Strong theoretical foundation)</td>
<td>Educational theory such as: Experiential Learning, Communities of Practice, Constructivist Learning, Informal learning, Formal learning, Transformative Learning, Work Integrated Learning; Adult Learning Theory, Situated Learning, Lifelong Learning, Distributed and Embodied Cognition, Multiple Intelligences, Flexible Assessment; Zone of Proximal Development</td>
<td>(Strong theoretical foundation)</td>
</tr>
</tbody>
</table>

Table 2. Incorporating teaching strategies related to educational theory into applied learning pedagogical framework

<table>
<thead>
<tr>
<th>Reflective Teaching practice</th>
<th>Strong theoretical foundation of research based, peer reviewed education theory</th>
<th>Reflective teaching practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational theory such as: Experiential Learning, Communities of Practice, Constructivist Learning, Informal Learning, Formal Learning, Transformative Learning, Work Integrated Learning, Adult Learning Theory</td>
<td>Relevant authentic context for learning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skills developed from learning activities undertaken in a relevant context. Skills learnt in one setting should be transferrable to other settings eg problem solving</td>
<td></td>
</tr>
<tr>
<td>Teaching Strategies based on Educational theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group work, oral presentations, reflective journals, debates, using IT, role plays, community partnerships, research projects, workplace learning, mentoring younger students, problem solving</td>
<td></td>
</tr>
<tr>
<td>Student Reflection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ongoing integrated reflection by students— eg what is learnt from experiences (tasks &amp; activities) and to what other settings can new knowledge be transferred</td>
<td></td>
</tr>
<tr>
<td>Educational theory such as: Situated Learning, Lifelong Learning, Distributed and Embodied Cognition, Multiple Intelligences, Flexible Assessment, Zone of Proximal Development</td>
<td>Reflective teaching practice</td>
<td></td>
</tr>
</tbody>
</table>
As a result it is unlikely the framework can become a boundary crossing object without the inclusion of mutually respectful pedagogical relationships between VCAL educators and their students. In this framework a mutually respectful pedagogical relationship is regarded as a catalyst for activating the framework into becoming a boundary crossing object. Table 3 acknowledges the importance of establishing and nurturing a pedagogical relationship between educator and student. In the completed framework representation student-learning centred learning becomes the foremost consideration of educator practice and is nurtured by the use of teaching and learning strategies which optimise student involvement in their own learning experiences. Teaching and Learning strategies are firmly grounded in educational theory which prioritises authentic, relevant learning.

As can be seen reflective teacher practice and reflective learning strategies are inherently woven into each component of the model. Reflection is essential to ensure experiential learning experiences are recognised and understood by both student and educator so as to enable transferability of learning to other contexts.

The examples of educational theories which support an Applied Learning approach along with suggested teaching strategies are not intended as exhaustive lists. Additionally the framework has purposely not included consideration of identity,
skills, personality, beliefs and teaching philosophy that educators take to their professional practice. These are additional layers with which educators uniquely personalise their practice.

This Applied Learning pedagogical framework is a response to a need, expressed by educators within research data, to understand what **Applied Learning** is. The framework incorporates the teacher tools of educational theory and teaching and learning strategies to act as a boundary object available to guide teacher practice.

**FUTURE RESEARCH DIRECTIONS**

Applied Learning continues to emerge as an important tool in engaging, re-engaging and retaining young people in Victorian education. The theme of this handbook highlights the multitude of learning environments in the 21st century and the flexibility of Applied Learning approaches in adapting to differing settings and engaging students in a range of learning environments.

The research on which this chapter is based was designed to determine how VCAL educators learn to become VCAL educators. During the process of interviewing VCAL educators and analysis of data, several opportunities were identified for further research which could continue to explore the professional spaces and boundary crossing objects available to VCAL educators. One natural research direction that builds on discussion within this chapter is to explore how VCAL educators learn to become VCAL educators. During the process of interviewing VCAL educators and analysis of data, several opportunities were identified for further research which could continue to explore the professional spaces and boundary crossing objects available to VCAL educators. One natural research direction that builds on discussion within this chapter is to explore what supports (or not) the access and activation by VCAL educators of the boundary objects provided by VALA and the VCAA. Resultant findings could contribute to increasing effectiveness of boundary objects in aiding boundary crossing. Findings could also be useful in guiding development and construction of boundary objects for incorporation into teacher education courses.

Jewson has critiqued of the notion of boundary crossing within Communities of Practice, arguing that it is more metaphorical than concrete as a concept (2007, p. 75). Investigation of questions such as *what kind of learning* results from the boundary crossing of VCAL educators and *what are the social relationships* of the various boundary settings would potentially provide greater depth to the concept. These answers would also be natural extensions of the findings provided here. The use of activity and / or network theory could provide alternate lenses through which to view the relationships of the spaces in which VCAL educators professionally engage.

**CONCLUSION**

Wenger indicates that his perspective of viewing learning as a social phenomenon should not be seen as a recipe that provides rigid direction, rather “it acts as a guide about what to pay attention to” (1998, p. 9). Likewise the framework provided in this chapter is also submitted as a suggestion of what to pay attention to in constructing an Applied Learning pedagogical approach. As Wenger says too much prescription may discourage “the very inventiveness that make practices effective” (1998, p. 10). VCAL educators need leeway to be inventive and lateral thinkers, but they also require ongoing and reliable support and sustenance in transitioning to teaching the VCAL curriculum.

When educators first commence teaching in VCAL they stand at the limit of their ‘usual’ or ‘past’ teaching field

... a limit, as Alberto Melucci put it, ‘stands for confinement, frontier, separation; it therefore also signifies recognition of the other, the different, the irreducible. The encounter with otherness is an experience that puts us to a test’ (Bauman 1998 p. 10).

The test for VCAL educators is how to cross the boundary into the field of VCAL and how to manage the impact of personal discontinuities / continuities on their crossing. What are the bound-
ary crossing objects are available to them. Some boundary objects are procedural or performative in nature, for example VCAL learning outcomes and assessment procedures. Other boundary objects such as professional development may provide examples of what to do, but won’t necessarily respond to all educators’ needs in understanding why to do it. Educators, like all learners, have a variety of differing learning styles. The representation in Table 3 of the relationship between the elements of learner, educator, theory and teaching actions is intended as another choice in available boundary objects. Only when actioned or activated however does any boundary object become a boundary crossing object to facilitate the transition process of VCAL educators moving from teaching in one field, or curriculum to another.

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ADDITIONAL READING


KEY TERMS AND DEFINITIONS

Adult Community Education: Adult learning programs delivered in community settings supporting the notion that education should be available and accessible to all. Providers might be community houses or community libraries (for example).

Applied Learning Educator: One who uses the pedagogy of Applied Learning as the basis for their teaching practice.

Quality Assurance: A process to ensure consistency of assessment planning across providers.

Technical and Further Education: Registered providers who provide nationally recognised, vocationally oriented qualifications at post compulsory levels.

Victorian Certificate of Applied Learning: A postcompulsory qualification in Victoria with a focus on providing young people with work ready skills and qualifications.
**Victorian Certificate of Education:** A post compulsory qualification in Victoria with a focus on preparing students for study at university.

**Victorian Curriculum and Assessment Authority:** The Victorian government authority responsible for assessment and curriculum at P-12 level.

**ENDNOTES**

1. The certificate is known as the Victorian Certificate of Education (VCE) for more information see [http://www.vCAA.vic.edu.au/Pages/index.aspx](http://www.vCAA.vic.edu.au/Pages/index.aspx)


3. In 2015 this course is replaced by the Masters of Applied Learning and Teaching (MALT).


5. Difference, for example, between the VCAL program and the Victorian Certificate of Education.


6. VALA is a professional organisation providing support and networking opportunities to Applied Learning educators who work in a range of settings and sectors. More information can be found at [http://www.vala.asn.au/](http://www.vala.asn.au/)