

Authentic Learning as a Case of Becoming

Abstract

Navigating authentic learning involves risk. Staff, who adopt such strategies to engage students and foster deep learning, are confronted by the ambiguity and fluidity inherent in learning environments that enable students to be independent, responsible learners and which invite other stakeholders into the mix in real time. Such settings involve both trust and an ability to embrace circumstances as-they-unfold rather than as initially structured. The outcome is a state of becoming.

Becoming can be understood in terms of the project, the strategy, the students' transformation, as well as the outcome. This state implicates unit objectives, content, activities and outcomes. Through this paper, a one week community based intensive project, held in and with a culturally diverse rural Western Australian community, is described through the experiences of the interior architecture staff—both full time and sessional, and juxtaposed with student reflections and feedback to inform this analysis. By adopting an interpretative framework, the expert-insider stories and reflections, identifies the characteristics of academics in situations that are beyond control and traditional ways of knowing. The experiences are captured through both personal reflections and collective discussions as the project unfolded. Personal and professional aspects of the staff members merge and both the aspects in common and that contrast inform the process that emerged. Opportunities therefore exist for students (and staff) to transform through such projects (Tweddle, 2000; Demirbilek et al. 2007).

The aims of this paper are to assist other academics to navigate the complexity of authentic and/or community based projects and to encourage interior architecture academics to embrace the risk embedded in such situations. It was predicted that individual staff would experience a range of emotions over such projects and that traditional strategies need to be flexible and responsive because the students' activities. Responses would require diverse modes of interaction as the students transform and/or become intimidated by the reality of such opportunities. This reflective paper has revealed that key considerations in attempting such projects are strategies for students to deal with their preconceived risks and how they are realised, whilst navigating their learning experience and personal state of becoming.

Introduction

Although risk is part of everyday life, we live in a risk adverse society. In addition, within professional domains—such as interior architecture—risk is inherent because a designer’s core focus is the creation of new solutions, which are by their very nature, as yet unknown. So how do we prepare students to engage with risk as an opportunity for learning, rather than attempting to control or ‘deal with’ it?

Community Encounters, the project to be discussed in this paper, highlights how both students and staff can be placed in an educational context that they perceive as risky. Planned ambiguity, often interpreted as risk, may relate to both student personal and professional development as well as the University’s modus operandi. Zembylas and McGlynn (2012) identify that a pedagogy of discomfort, when integrated into the curriculum as a means to assist students to become aware of their preconceptions, (and particularly, in relation to social justice issues), opportunities arise when the familiar becomes unfamiliar to enable personal transformation (Dall’Alba 2005); and this is also true for staff in new learning environments or scenarios (Hedley, Smith and Fermer 2007).

In this case, the teaching team brought differing personalities, levels of teaching experience as well as familiarity in community-based projects. Although each member was enthusiastic about the project and it was discussed in detail, the implicit understandings of what would, and what could happen potentially were discrete. It is assumed that this was also true of the students, therefore the level of risk embedded within the project was inherently multi-dimensional and fluid.

As a means to explore how community-based projects may reach their potential and facilitate meaningful learning, a second-year project is described and critiqued. Through the discussion, strategies are revealed which enable aspects of risk to be identified and considered.

It is important to note that an integral aspect of such community projects is their inherent fluidity and as a result, the realisation of the project and activities can only come into being through being actively engaged with them. They exist in a state of becoming that is constantly renegotiated. It was revealed through critical reflection on the unit, that due to the increased level of risk, there is a need to ensure that students and staff are aware of these phenomena over and above being prepared for the activities and content related matters.

Rural Community Project: Content and Structure

A major Course objective in Curtin University’s Interior Architecture program was to introduce junior students to social responsibility issues and theory through a community-based project. The aspiration was to enable students to identify that the skills and activities combined with the theory

of interior architecture can facilitate change and to improve the built environment for the relevant stakeholders.

Community Encounters is a core design studio unit embedded in the second half of the second year program. It was run for the first time in 2011 with an enrolment of 48 students and a team of four staff members, two full time and two sessional field trip attendees who were engaged for their varying levels of industry based community engagement projects and/or teaching experience.

The unit was arranged as a series of preparatory lectures around the theme of social justice and cultural consideration in interior architecture, followed by a six day field trip to a multicultural regional community, two and a half hours south east of Perth, Western Australia. The design project was nominated by the shire council and saw the students propose ideas for the adaptive reuse of one of two sites, both of social or cultural significance within the community.

The community we partnered with is built around broad acre cropping, sheep farming and associated rural industry. This includes an international export halal abattoir which has attracted a significant migrant and refugee workforce to the town, largely from southern Asia, western Africa and the Middle East. The community also has a large Aboriginal population with strong and recent connection to the stolen generation through a former mission camp located within the shire. Former mission staff and internees still reside within the community.

The lecture series and first submission, a journal detailing student research into unit themes, reflection on lecture content and identification of preconceptions, was completed before the field trip commenced at the end of the semester. This allowed staff to identify student readiness for the community interaction and address preconceptions that were raised. Emphasis was put on student preparedness for the expected cultural interaction and encouraging student investment in the idea of using their developing skills for the benefit of those who would not usually have access to them.

Submitted journals identified that students were aware of the fact this field trip was designed to put them outside their comfort zone and despite being provided with a program of events and assessment outlines at the beginning of the semester, students felt great apprehension towards the assigned tasks being conducted outside the standard studio setting.

'I have mixed emotions about going to [the town] because I have no idea what we are doing and I do not like to be out of my comfort zone.' [Student2 journal preconceptions]

Student apprehension was not limited to the assessment tasks, with many students recognising that their personal relationships and ability to work as a team, both within their small groups and the wider cohort would also be tested in such close confines of sharing accommodation, cooking facilities and bathrooms. Staff also shared these apprehensions.

'...a level of self-doubt that is seriously put to the test in a situation like this. Being with students and other staff for nearly 12 hours a day gives no-where to hide...' [Staff3 reflection]

The out of pocket cost of the field trip for each student totalled \$200 and included bus transport, accommodation for 5 nights, several tours and site visits and printing costs for the final submission of work in the form of an exhibition in the town gallery. This caused some conjecture amongst the students, with the perception being that if they had paid their fees for this unit the cost of the field trip should be covered in its entirety by the university. This context saw the program become heavily scheduled due to staff anxiety about providing students with perceived 'value for money' which caused its own issues as the project unfolded.

'...we had the briefing. Too late and too long. It needed to happen but it probably set the scene for a dense program—with little down time, observation and joy....' [Staff2 Field notes day 1]

'..I attended a lot of field trips as a student. Generally they are all very busy in programme. The question I have is, was this one too busy?...' [Staff4 Field notes day 4]

Students were briefed on how to assemble a team based on required skills needed to undertake the required tasks and were charged with setting themselves up in groups as they would draw together a design practice, with a diversity of skill sets they thought offered them the best opportunity to succeed.

'Students who did not remain in their friend groups appeared to work more effectively together. I think students were thrust into professional working relationships through the lack of familiarity.' [Staff4 recollection]

The program was planned to allow site visits, community research and consultation to occur early in the week; with the students maintaining an 'open door' working studio in the iconic town hall whilst they developed their design responses. These were then to be presented back to community stakeholders at the end of the week in the town's well equipped regional gallery. The work was to remain on public display for a week to allow for community feedback on the work generated by the students.

The opportunity for public exhibition raised the stakes for the students and the assigned design tasks were of such scale or complexity that the groups had to rely on one another to be able to complete the assessment. A lack of group delegation and trust would make the task difficult to

achieve, therefore the level of group task and time management required was high, mimicking the skills required to meet a deadline in professional practice.

'This assignment was the hardest decision making process I have ever experienced throughout my uni-years. This process of decision making/splitting up and trusting group members has definitely made an impact on this assignment. I will remember this forever.'
[Student4 journal reflections]

On this tight programmatic continuum the inevitable community engagement 'slippage' occurred requiring staff to problem solve and communicate a flexible solution to the students. *'...it was going to be fluid wherever we got to...'* [Staff2 Field notes day 1] Whilst we had spoken to students about the likelihood of this occurring and the staff willingness to flex on assessment tasks and deadlines, in recognition of the changing opportunities for community engagement, students were not prepared for this degree of ambiguity.

'...the learning and stress control took precedence over the pre-programmed outcomes. It had changed to suit what were the realities of this project in real time...' [Staff2 Field notes day 4].

Through staff and student reflections it was noted that the lecture program had developed their awareness of cultural and social justice issues in design but the required flexibility for navigating projects such as this, was lost between the preparatory studio meetings and lectures, and the 'on the ground' experience during the field trip.

The student's final assessment was a reflective journal which required them to reflect on not only the field trip and their design process, but also their group establishment and management, their field trip preparation and their personal preconceptions. This for many students raised the level of their understanding of exactly how much ground they had covered in this project and the level of personal transformation that they had experienced. Whilst students (and staff) acknowledged the overstuffed program and the discomfort of feeling well outside their comfort zone, there was an overwhelming sense of pride in what was achieved. Students also acknowledge the longevity of some of the learning outcomes.

*'Let's be honest we all thought what the **** has this unit got to do with Interior Architecture and why the **** would I want to go to [the community]. Yet in fact this is my most memorable and enlightening experience I've encountered through university. It's something that reached out past the boundaries of university and into my life.'* [Student1 journal reflections]

Navigating Risk

We are defining risk in this paper as the inability to predict what will occur and/or what the resultant impact will be. In such projects we cannot forecast the consequences of ideas or actions; and results for staff, the learners and the community, may be either negative or positive. Often the situation has to occur to determine the nature of both the process and the outcome.

The degree of risk is directly related to the nature of the learning environment. Authentic learning is accepted as a particularly appropriate form of learning for university students as they are adult learners. As Knowles identified, andragogy focuses on adult learning methods to engender motivation (Chang, 2010). He identified six key premises which the community based projects capture:

- Adults could respond better to internal than external motivators.
- Adults are most interested in learning subjects having experience in work and more experiences in life.
- The basis of learning activities is experience, which clearly shows that adults have better experience.
- Adults require reasons for learning something.
- Adults are contributors of their own involvement in planning and evaluation of their instruction, they should also be responsible for their decisions on their education.
- Adult learning should be more problem-centred than content-centred.

(Chang, 2010. pp25-35)

Therefore, the current project drew upon theory relating to authentic learning and discomfort as learning to achieve this outcome.

Through the project—described above—there were two forms of risk: Predicted and revealed. Predicted risks are those that we could identify as likely to occur due to our experience and the nature of the project. Staff perceptions have been categorised under themes in the following table, based on the predicted risks associated with each of the invested groups associated with this project, the community stakeholders, the students attending the field trip and the staff themselves.

Table of Staff Predicted Risks

| | PREDICTED COMMUNITY RISKS | PREDICTED STUDENT RISKS | PREDICTED STAFF RISKS |
|------------------------|---|--|---|
| PROFESSIONALISM | <i>What if the community don't honour what they have committed to? What if they don't show up? We've come so far and invested so much but the success of this studio relies on the community's involvement...</i> | <i>What if the students don't present themselves professionally when representing the university publicly?</i> | <i>What if staff struggle to maintain a professional balance when we are working and living together so intensely with colleagues and students? What if students don't see us as professional once they've seen us brushing our teeth in our pyjamas?</i> |
| INVESTMENT | <i>What if the community turn out to be less invested in the project than we expect? What if they're just not interested?</i> | <i>What if the students reject the social justice agenda of the studio? What if students give up or put in a half-hearted effort?</i> | <i>What if one of the staff members has to pull out at short notice or has to return home for an emergency, how will the team cope with the increased workload?</i> |
| POLITICS | <i>What if the community are divided/culturally inconsiderate of each other? We could be stepping into a political minefield...</i> | <i>What if the students cannot synthesise the diverse views of the multiple community groups?</i> | <i>What if staff are called on to navigate students through student or community conflict?</i> |
| PROJECT PERCEPTIONS | <i>What if the community have unrealistic expectations of the outcome?</i> | <i>What if the students don't perceive the experience as value for money? What if they don't think the wait was worth it? We've been building this up all semester to increase their motivation and personal investment.</i> | <i>What if we get caught out with limited mobile phone and internet coverage in town? How would this effect the group's safety? How will we disseminate information to the students in a hurry?</i> |
| PROJECT LEGACY | <i>What if the design outcome is controversial? What is intended to unite may divide, and then what legacy are we leaving?</i> | <i>What if students don't/can't meet the unit learning outcomes? – What will be the consequence of having all the teaching in one week?</i> | <i>What if the project flops and we have an entire studio where students have not had the opportunity to meet the unit learning outcomes?</i> |
| CULTURAL ACCEPTANCE | <i>What if the community is not accepting of the cultures and minority groups in our student cohort? What if they are suspicious of outsiders in general?</i> | <i>What if the student's cultural preconceptions overpower the preparation pre field trip? What if they are culturally inappropriate to minority community members?</i> | <i>What if this trip raises unexpected cultural responses from staff? Are we as culturally aware as we think we are?</i> |
| SAFETY & BEHAVIOUR | <i>What if there are safety issues within the community that put our predominantly young female cohort at increased risk?</i> | <i>What if students misbehave (drink/drugs/not working on their project)? What if they get too friendly with the locals?</i> | <i>What if the staff don't gel as a team? Some have not met one another, one has not taught before... Will staff be able to maintain strong communication in a high stress atmosphere?</i> |
| UNDERSTANDING & DOUBTS | <i>What if the community just don't understand what we are trying to achieve?</i> | <i>What if the task is beyond the capability of the students? Are we pushing them too far too early and setting them up to fail?</i> | <i>What if staff/students realise I don't know what I'm doing? What if this group is too large to achieve the intimate engagement that will make this field trip an intensely memorable experience?</i> |

While the endless 'what if' scenarios, could have offered staff many reasons for not venturing into unfamiliar territory, they also represent a worst case scenario. Experience has shown that it would not be likely that all would occur and that many could be managed. The predicted opportunities for students' authentic learning and personal transformation outweighed the prediction of significant staff discomfort and risk.

'...I have organised a number of workshops and field trips over many years, so I was relaxed that the benefits and learning would be high. That said, I also realised that you can't predict what will happen and that we would need to relax and go with things as they evolved; and that sometimes that will be a challenge.' [Staff2 Reflective conversations]

In contrast, revealed risks are those that emerged through the current project and which had not been evident or expected prior to leaving campus for the community intensive. Staff and student reflections were analysed to uncover the following revealed risks that became apparent as the field trip unfolded:

Table of Staff Revealed Risks

| | REVEALED COMMUNITY RISKS | REVEALED STUDENT RISKS | REVEALED STAFF RISKS |
|---|---|---|---|
| PROFESSIONALISM & INVESTMENT | <p>Community contacts delegating 'us' to others without communicating with us or passing on briefing information to next contact.</p> <p>Reliance on community champions disseminate messages to their contacts, all come with their own agendas.</p> <p>Community organisation contacts often only available part time/after hours making the timing of communication difficult.</p> | <p>Student perceived program flexibility as disorganisation.</p> <p>Students understanding of 'culturally and climatically appropriate clothing' were inadequate.</p> | <p>No downtime for staff, always on duty 24hrs a day for 6 days.</p> <p>Constant problem solving required to navigate the fluidity of the project was intense.</p> |
| POLITICS & CULTURAL ACCEPTANCE | <p>Hidden and biased networks existing in the community delayed our progress and required staff to shield students from potential community conflicts.</p> <p>Diverse community views contradicting the council's brief to students.</p> | <p>The impact of hidden student relationships and pecking orders even within the 'good' groups.</p> <p>Student's ability to trust one another and put aside their competitive nature was challenging for many.</p> | <p>Dealing with people whose opinions and basic principles were considerably removed from our own and being able to guide students effectively.</p> <p>Staff finding community cultural attitudes unexpectedly confronting.</p> |
| PROJECT PERCEPTIONS | <p>Illusions embedded in public documentation and discourses creating skewed expectations and irrelevant processes for the project.</p> <p>Project awareness and community involvement only gained momentum when we were present in town.</p> | <p>Inexperienced students' lack of ability to sort 'stories' from differing sources in order to achieve unbiased/rich briefs and projects.</p> <p>Students realigned their focus from achievement of grades to engaging with the process, but didn't let go of their perception of what was required for a submission-causing much angst.</p> | <p>Navigating a very free flowing project while keep the students feeling confident due to the unpredictable level of complexity of the project and the community.</p> <p>Staff involvement in organising the end of week exhibition at the gallery was high, leaving less time for student engagement.</p> |
| SAFETY & BEHAVIOUR | <p>A town power failure caused high levels of anxiety and frustration.</p> <p>Mobile phone and internet coverage was also limited increasing feelings of isolation.</p> <p>An early confrontation with town youth got things off on the wrong foot.</p> | <p>Little opportunity for down time increased student anxiety and lack of sleep; this presented its own safety issues.</p> | <p>Concern for student safety was a constant after a few minor incidents early in the week.</p> |

Whilst the revealed risks required significant investment of staff energy to navigate as the project evolved simultaneously in every direction, it also allowed for unexpected student learning opportunities. Unbeknown to staff, students were journaling not only about their own group

dynamics but their observations on how the staff team interacted whilst navigating the ambiguity of such fluid circumstances.

'I had no idea that they were watching us (as a team) in such a way, we were modelling the process we wanted them to engage in without even realising we were doing it.' [Staff1 reflective conversation]

Theoretical Underpinnings

Educational as well as discipline-based theory informed the development of the unit and the subsequent 2011 project. Many of the desired outcomes for this unit align with the generic capabilities or graduate attributes that most tertiary institutions have identified as necessary for graduates to cope in the contemporary professions. Interestingly, these attributes cannot be taught, but rather, must be developed through experience. Students often already possess these but are unaware of them or they are less sophisticated than those of a professional. Authentic learning projects allow these attributes to be exercised whilst developing discipline skills.

Authentic Learning is discussed by Herrington and Herrington (2005), who outline various definitions emerging in teaching literature and associated case studies. They conclude that authentic learning requires genuine problem solving processes while situated within an authentic setting, and that characteristics of authentic learning include real problems to be addressed, socially based reflection and discussion with the need to articulate the ideas clearly to others. (Herrington. 2005.pp3-8)

Scaffolding is integrated rather than being directives given by staff, to deal with real-life complex or multi-dimensional problems. Experts' practices are visible and accessible in real time to students. Additionally integrated assessment practices are shown to shift students focus away from achievement based learning.

'We were extremely nervous that we would not finish in time, not because we were not working but because we wanted it to be perfect to show the community that we care.' [Student2 journal reflections]

'Advice for future students: Do not think of the mark you are gonna (sic) get but what you can give back to the community' [Student4 journal reflections]

Zembylas and McGlynn's authentic learning proposition (2012), that awareness and learning potentially emerge through a pedagogically supported level of discomfort, was embedded—albeit not explicitly. It was through reflection, that we became aware how this approach had facilitated meaningful experiences. However, unavoidably, such strategies undoubtedly include built-in risk. The degree to which students perceived and dealt with the resultant situation varied. Therefore, it is of value to reflect on Zembylas and McGlynn's observations.

A pedagogy of discomfort can assist students to become aware of their preconceptions. They particularly applied this approach to education regarding social justice issues. Characteristics of Discomfort as Learning Model include the everyday being “problematized” so students realise their ‘unconscious privileging’ and social norms—dominant beliefs, practices—are revealed and can be challenged. The aim is to encourage activism or action in addition to empathy. Aspects of inequality, injustice or other points of tension are used as opportunities for discussion.

‘This unit has opened my eyes to culture, religion and issues I knew nothing about...until I learned about cultural issues in designing, I didn’t understand the full extent of how my actions could affect the lives of others.’ [Student1 journal reflections]

Who’s Reality: Perception vs. ‘Fact’

Building on the theory it was predicted that students would develop the following attributes:

- Social and cultural awareness and responsibility
- Relational and team skills
- Independence and self-directed learning
- Reflective practice

Overall from staff perspectives the unit was very successful. There were a number of issues arising associated with the conflicting perceptions of what the intensive in the community would entail and the final outcomes would be. In order to ascertain the experience of the students, their visual/reflective journals and their formal feedback from University evaluative system were analysed.

Anonymous student feedback on the Community Encounters unit was statistically significant with a 60% response rate showing a high level of investment from the students. Through both forms of feedback a number of concepts arose that demonstrate how there were in fact differing perceptions and expectations operating which lead to a sense of confusion and misunderstanding of what was expected from them.

For example, statements such as; *‘The week’s trip was too hectic. Next time let’s have a sufficient amount of time to complete a final design project’ [Evaluate response]* demonstrate that some students had not grasped that nature of working with a community rather than undertaking a project; and that a refined resolution may not be required when ideas may be more relevant within a week. Because the inherent nature of the project is in constant flux, students need to anticipate that the situation will be unpredictable at times.

‘I felt the organization of the field trip held too many implications and things were adjusted on a regular basis. We didn’t define the brief until the day before the due date.’ [Evaluate response]

Students also indicated they did not always understand the distinction between community service and their own needs—a key aspect of Interior Architecture. For example: *'I think for the next field trip, maybe going somewhere with less social and cultural conflicts where our project can be appreciated more.'* [Evaluate response] This comment indicates how important it is to deal with expectations and perceptions as much as it is to address content and logistical issues.

In contrast, however, students did recognise the advantages of the project for themselves and their professional development. Importantly, they recognised the significance of being immersed in a community.

'This unit could have not been taken in the classroom as the community encounters aspect is integral for understanding how to develop a design within a community and actually being able to experience aspects of the functioning of the community would not be as successful being learnt in class.' [Evaluate response]

Unit feedback included that s/he: was personally challenged; opened up with increased understanding and discernment; developed increased community awareness and learnt respect; felt prepared to some extent to deal with content; found it competence building; and, the project had relevance to the profession.

Overall Evaluate respondents scored the teaching of this unit highly noting the enthusiasm and engagement of the staff but scored the unit as a whole poorly with noted perceptions of the experience being disproportionately stressful, ambiguous and disorganised. Yet in their journal reflections students acknowledged the challenging nature of this program alongside statements of significant learning transformation.

'Before this (unit) I had no idea the true extent of the importance of being an interior architect. I had little idea, the amount of consideration you must take when designing a space and thought it was as simple as being given a brief and completing the task at hand but I was mistaken.' [Student1 journal reflections]

'There have been many highs and lows over the week but it has been a really good learning experience and is something you do not learn in a studio at university...it felt as though we were in a real practice and opened my mind.' [Student2 journal reflections]

'This experience definitely cannot be taught from a book, or through reading a couple of texts and reflecting on issues. It's about experience, investigation, collaboration and organisation of encounters in the wider community, stepping outside my 'bubble'.' [Student1 journal reflections]

The disparity in the student reflections on their learning, contrasted against their unit evaluation response of the overall learning experience highlights the danger of taking such formulated evaluation survey results at face value. Whilst there are definite areas in which this unit will need to change, it also highlights the polarisation between student expectations of authentic learning

experiences and their willingness to engage with ambiguity and discomfort as part of that experience.

Through analysing the data collected from this field trip experience several opportunities for future research have been identified. These relate to the students' varying degrees of emotional preparedness for navigating the ambiguity inherent in authentic learning experiences. Attitudes towards engaging with ambiguity and risk could be analysed against student's cultural background (international or local enrolment) or alternative entry pathways into tertiary study (mature age entry or school leaver).

Implications for Community Engagement Projects

Embracing risk in design education requires the implicit ambiguity and complexity of such projects to be made explicit, processes discussed and emergent strategies to be enabled. Disjuncture between the familiar and the ill-defined enables potential transformation once identified and experienced through such projects, yet this comes with a proposed level of discomfort as a means-to-learn that requires both scaffolding and independence.

Community and social justice projects foster a sense of belonging and ownership amongst all involved—stakeholders, students and staff. Such projects have the potential to increase student engagement and the long term embedding of the acquired learning outcomes. However when real people (both staff and students) encounter real situations, perceptions are often diverse and deeply embedded, requiring significant discourse to be both identified and understood.

This paper recognises that students, staff and the learning opportunities they seek to participate in, are in a constant state of becoming when engaged in the risky and rewarding practice of community based authentic learning.

References

Dall'Alba G. 2005 "Improving teaching: Enhancing ways of being university teachers." *HERDSA* 24 (4) 361-372.

Demirbilek, N., Smith, D., Scott, A., Dawes, L. & Sanders, P. 2007. 'The learning context and designer characteristics challenge and reveal the design process'. *Dancing with Disaster Conference*. Turkey. June 2007.

Hedley, P., Smith, D. & Fermer, D. 2007. 'Designing for and by risk taking'. *Inhabiting Risk: IDEA Conference*. Wellington, New Zealand. June 2007. pp. 61–70.

Herrington A & Herrington J. 2005. "What is an Authentic Learning Environment" in *Authentic Learning Environments in Higher Education*. A. Herrington & J. Herrington (Eds) Hershey: Information Science Publishing. pp1-13.

Michalinos Zembylas and Claire McGlynn. 2012. Discomforting pedagogies: emotional tensions, ethical dilemmas and transformative possibilities. *British Educational Research Journal* 38 (1):41-59. February 2012.

Tweddell, C.B. 2000. *A theory of adult learning and implications for practice*. Midwest Educational Research Association Annual Meeting, Chicago, Illinois.

Chan Sang. 2010. "Applications of Andragogy in Multi-Disciplined Teaching and Learning". *Journal of Adult Education* 39 (2): 25-35. Brigham City.

Davies, M. (2006). "Intensive teaching formats: A review". *Issues In Educational Research*. 16 (1): 1-20. URL <http://www.iier.org.au/iier16/davies.html>

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