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# Distance Education and the Application of Academagogy: A Case Study

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**Abstract:** The education sector has dramatically changed in the past half decade. In a time of globalisation of education and tightening budgets, various paradigm shifts and challenges have rapidly changed learning and teaching. These include: meeting student expectation for more engaging, more interactive learning experiences, the increased focus to deliver content online, and the complexities of fast-changing technologies. Rising to these challenges and responding to them is a complex and multi-faceted task. This paper discusses educational theories and issues and explores current educational practices in the context of teaching undergraduate students via distance education in the university context. A case study applies a framework drawn from engineering education using the learner-centric concept of academagogy. Results showed that academagogy actively empowers students to build effective learning, and engages facilitators in meaningful teaching and delivery methods.

**Keywords:** academagogy, teaching, higher education, undergraduate, millennials, distance education, distance learning



### **Introduction and Background**

The rise of the Massive Open Online Course (MOOC) is a significant contributing factor in 21<sup>st</sup> Century educational transformation, and higher education cannot be excluded from this revolution. The means of finding information and the ways in which people communicate with each other has been significantly reshaped by technology (Conole, 2012). Vast amounts of increasingly accessible information sources are being stored on the Cloud (Naughton, 2012), and mobile devices such as smartphones allow instant access to it. The assimilation of technology into the very fabric of our lives and the impact it has made on education cannot be ignored.

This relatively recent explosive growth in online distance education - 'free' or fee-paying - is "rapidly transforming post-secondary education" (Moller, Foshay, & Huett, 2008, p. 66). Distance education is not a new concept in teaching and learning in higher education, but it is increasingly being used in experimental ways in order to engage students in learning new and complex concepts, from law (Butler, 2008, 2012) and landscape architecture (Gard and McAuliffe, 2009), to interior design in Space (Cokley and McAuliffe, 2010).

It cannot be disputed that in the higher education sector the expectations of students have significantly changed since the 1960s. Additionally, the speed and infiltration of information and communications technologies (ICT's) has increased exponentially since it was first introduced into classrooms in the late 1980s. The long lead times needed to implement ICT systems in higher education institutions leave students frustrated when the technology of their hand-held devices is often superior to that offered in their virtual learning environments. In the wake of this, educators in teaching and learning face increasing challenges to meet the needs of a wired and wireless generation of students with ever-evolving technology.

Today's students are no longer the people our educational system was designed to teach. Today's students have not just changed incrementally from those of the past, nor simply changed their slang, clothes, body adornments, or styles, as has happened between generations previously. A really big discontinuity has taken place. One might even call it a "singularity" - an event which changes things so fundamentally that there is absolutely no going back. This so-called "singularity" is the arrival and rapid dissemination of digital technology in the last decades of the 20th century (Prensky, 2001:5).



Even at the turn of the century Prensky (2001) noted this dramatic change in the current generation of learners, and it is even more apparent over a decade later. This is not simply because generations naturally change and progress over time, but rather changes in technology and globalisation have had a significant impact on culture, revolutionising and “dissolving frontiers in education” (Harry and Perraton, 1999:1).

#### **The Millennial Generation**

It is estimated that the Millennial Generation, who are the current generation of students born between 1980 and 2000, typically spend approximately 6.5 hours a day saturated in various forms of print and electronic media. Jukes and Dosaj (2005) argue that millennials tend to display the following characteristics:

- They like to be in control and not bound by space or place, but rather prefer to use technology to telecommute from their preferred space
- They like choice to complete tasks in new and creative ways
- They tend to be group-oriented and social. What they share with others helps them create their own identity
- They are inclusive and tend to be tolerant of race, religion and sexual orientation, using the Web to search for information and learn about new perspectives and subjects
- They are practiced users of digital technology as it is an inherent part of their lives, preferring to use computer-mediated communication over “traditional” methods
- They think differently than other generations before them, accepting technology, adapting to it and using it
- They have a mentality of YOLO (you only live once) and are more likely to take risks, and as such, are not as likely to take repeated and similar risks

Considering these factors, the current learning approaches in academia and higher education are not always in sync with the Millennial generations needs and expectations as for them Raines (2002) argues that:

- Learning must be perceived as relevant and content must be specific, concise and fast. As this generation are hungry for information, they will search for information if it is not



immediately available. However, in contrast, as there is so much information on the internet, this generation needs to be taught how and where to find information when they need it. Access to so much information leads students to believe that the information *is* knowledge, in turn leaving them to ask “what does the teacher offer that is unique, if I can source everything I need from the Web?”

- Technology can be distracting. However, even though Millennials respond best to technology, they can be distracted by ICT, and as such, educators need to know how and when to use technology as a tool appropriately
- Millennials who have excelled at high school often find themselves unchallenged, usually finding little use for the first two years of higher education (Raines, 2002).

Although this was proposed more than a decade ago, one could still argue that such expectations are still as relevant in 2013.

Teaching and learning has changed significantly in the past two decades, and as Millennials began moving through today’s higher education systems, curricula and teachers need to evolve and develop new teaching methodologies to reach this generation, which spends as much time stimulated by digital media as it does in the learning environment. The Millennial generation and their needs are complex; best practice education resources and requirements must evolve to meet these needs. While existing technology serves as a set of tools that shape and enhance the learning environment, it should be used to supplement, but not substitute for high-quality teaching and learning methods.

Certain pedagogical paradigms such as experiential learning (Schank, 2007) and the application of Bloom’s taxonomy (Forehand, 2005) are commonplace in university curricula. Notwithstanding these and other valuable initiatives and programs implemented in various institutions, the disconnect and ever-increasing gap between the current generation of learners, and teaching and learning methodologies have become even more apparent. This paper discusses a case study implementing the learner-centred teaching approach known as academagogy in a distance education and blended learning situation. It is a continuation of research about adapting various learning approaches from engineering education to encourage life-long learning in the creative industries from a specific design standpoint.



## Theoretical Framework

The many theories in the teaching and learning context “are constantly being reviewed and discussed in professional education, especially in terms of the university educational environment. Teaching and learning theories in this context are not static and appear to be in a constant developmental process” (McAuliffe, Winter, Hargreaves and Chadwick, 2008, p. 1). Education, in particular in the university sector, is in a constant state of flux and those in teaching and learning constantly seek ways toward improvement particularly in undergraduate education. However, the approaches that are proposed typically follow the ‘one size fits all’ that tends to observe rigid ‘rules’ and procedures.

In terms of teaching and learning, there are several generally accepted approaches which include: pedagogy (where the teacher is source of all information), andragogy (where the teacher is source of information for adult student), or heutagogy (where the student with knowledge seeks information from the teacher to fill the gaps in their own knowledge). Pedagogy is a contentiously debated term deeply rooted in teaching and learning philosophy, which literally translated means “leading the boy”, although it is generically (and some argue, erroneously) used for both childhood learning and tertiary learning contexts. Andragogy was popularised by Knowles (1980) and literally translated means “leading the man”. It is a range of teaching strategies developed for the structured education context and focused toward adult learners. Heutagogy is a relatively new theory in teaching and learning which was developed by Hase and Kenyon (2000) and is classified as ‘self-determined learning’. It is an expansion and reinterpretation of andragogy, but differs from andragogy in that it requires that educational initiatives include the improvement of learning skills by learning how to learn, and it focusses on both formal and informal learning contexts.

McAuliffe et al. (2008) followed the same Greek roots from pedagogy, andragogy and heutagogy to reach “academagogy” or “scholarly leading” (McAuliffe et al., 2008; Knowles, 1980; Hase & Kenyon, 2000). One of the primary aims of academagogy is to “open up teaching concepts, and allow the informed academic to apply what works for them in their own context. This means that the facilitator, or, in the university context, the lecturer, could select certain concepts from the ‘buffet’ of educational concepts – take what is required for the appropriate learning



outcomes, because they have permission to look at the whole spread and evaluate it for their own purposes” (Winter, McAuliffe, Chadwick & Hargreaves, 2009, p. 993).

### **Issues in Teaching and Learning**

The higher education community with its systems and processes further impact on the teaching and learning situation. McAuliffe (2013) argues that increasing class sizes, restrictive time slots and spaces for learning, assessment processes, the demand for online delivery, and risk minimisation policies all conspire to disengage the student learner. This creates a situation further exacerbated by a lack of knowledge of the complexities of the learning situation, particularly in the context of teaching complex and abstract notions of colour and light through online delivery.

Theoretically, the higher education context in its traditional method of teaching of face-to-face (F2F) does not fit well with millennials’ feeling the need to be in control and the preference for using technology to telecommute. Traditional F2F is usually a situation that does not permit a significant amount of agency for the student learner due to the nature of delivery; the lecturer delivers the content and the students listen and take notes. This also inhibits this generation’s need for choice in completing tasks in new and creative ways.

In order to address some of these concerns, McAuliffe (2013) proposes that several key components of teaching and learning in undergraduate education should include *intuition*, *sensibility*, *productivity*, *exploration*, *novelty* and *elucidation*. Intuition should be permitted allowing students to generate immediate associations to the learning task through their own personal experience of the world and what they know about designing through their design education. Sensibility should allow students to evoke a form of response or feeling during the learning process that involves a broader view; preferably one that is co-created in a dialogic situation with others. In terms of productivity, students should be permitted to productively generate ideas – even ideas that initially appear flawed, and should also be allowed exploration of ‘the unknown’ through mental modelling and imagining. Novelty is also important so as to create uncommon concepts and explore novel ideas, and elucidation should allow students to express abstract ideas experimenting initially with narrative and other forms of communication.



However, whilst F2F teaching in the lecture theatre and tutorial spaces in principle allow for the theoretical use of the key components of teaching and learning proposed by McAuliffe (2013) above, in practice they can be difficult to apply through distance learning, which is becoming more commonplace in the university context. These are significant issues requiring exploration especially when the higher education sector faces decreasing resources, an increasing risk-adverse higher education environment and university demand for quality assurance involving greater transparency and learning outcomes linked directly to subject aims and objectives.

For this case study, there are two specific issues in teaching and learning that contextualise the research. First, the university uses Blackboard® as its learning management system and virtual learning environment, creating some extreme limitations in functionality and technological flexibility. Second, this case examines the transition of a subject on colour and light theory from a traditional F2F delivery to a format delivered principally online via distance education.

### **Implementing Academagogy**

According to Winter et al. (2009), academagogy, a 'meshed' model of pedagogy, andragogy and heutagogy, allows for flexibility in teaching by using a variety of methods and also encourages feedback into this model. They propose that academagogy can be used across diverse cultural and generational backgrounds and varying disciplinary backgrounds, and considers students' prior knowledge. It is understood that in teaching undergraduate students, academics do not simply deliver knowledge and content to a 'tabula rasa'; students are taught the content, and as such, a variety of student characteristics affect the way that learning occurs. It is in this context that academagogy is used as a framework for a subject delivered via distance learning to first semester, second year undergraduate students in an Australian university. This subject was previously delivered successfully in F2F format, but this was the first iteration of the subject delivered almost completely via distance learning.

In developing the subject for online delivery, the three core aims were to: align educational outcomes with course requirements as well as industry expectations; emphasise active enablement and engagement with technologies; and build effective connections with students to support a vibrant learning ecology. The efficacy of the subject was measured through verifiable outcomes that included feedback and surveys, and performance descriptors obtained through



assessment instruments. It was hoped that this would provide three significant benefits: firstly, promote a joint ‘ownership’ of outcome-based academic curriculum between learners (students) and facilitators (teaching staff); secondly, encourage communication and teamwork; and finally, leverage on the students’ need for social connectivity. Additionally, it also sought to support the holistic transformation from the using of information to the application of wisdom, the converting of knowledge into action through experiential learning, and nurturing a positive attitude toward new technologies and ways of imparting knowledge.

In this subject the approach was to take a conventional F2F syllabus and apply academagogical constructs and learning principles to derive learning components and outcomes, which were then delineated into smaller, digestible structured tasks. The delivery of the curriculum was jointly ‘negotiated’ between facilitator and learner which is similar to a typical designer-client relationship in design practice. This application of the academagogical construct or framework to curriculum then passed through a series of stages, including: engagement between facilitators and learners; exploration of learning content; enabling learning; execution through active learning and achievement of outcomes; and improvement based on experience and feedback.

When applying the academagogical model in this situation, care was taken to leverage the strengths of the cohort of learners and their educational and social needs. The outcomes of the subject were aimed to ensure the encouragement of social connectivity (an important aspect of distance education), group work (learning about and from each other), flexible learning settings, and most importantly of all, empowerment for lifelong learning.

### **Feedback and reflection**

Following the first lecture and tutorial, the lecturer reviewed the lectures and the subject plan. Based upon feedback garnered from students over email, Skype® and mobile text messaging, the subject content was modified in order to ensure that students were able to grasp and absorb content delivered online, as for most of the student cohort, this was their first experience of tertiary distance education. New approaches in explaining complex concepts were explored and simple examples were drawn upon. For example, complex theories were worked on a ‘whiteboard’ program and ‘live’ actions recorded through screencast software (rather than traditional presentation slides). These actions, coupled with Skype® support, proved to be satisfactory.



Over the course of the semester, feedback was sought from the students via a free and anonymous online survey mechanism. The results generally showed that although the lecturer explained and illustrated the work in a clear way making it easier to understand, the general consensus was that “there is a big difference between online learning and traditional lectures. For the online learning, it is the student’s responsibility to learn, but in the lecture, it is the lecturer’s responsibility to make sure that the students learn. Doing it online means that I have to take responsibility to learn, but it IS easily explained so I can understand it better than a usual lecture” (T.A). However, having online lectures and tutorials means that students “can be flexible when and where I watch my lectures” (H. E.) and furthermore, “I can listen and rewind it time and time again if I miss something. I can pause it and come back to it if I’m not absorbing something, which is something I can’t do with a normal lecture where I have to take notes and rely on my memory, which I find very stressful” (S.D).

In week seven of the semester, after two on-campus F2F lectures and tutorials (in weeks one and six), and five weeks of online lectures and tutorials (weeks two, three, four and five), the lecturer reflected that:

*The results of the first assignments were rather successful, which was surprising, as I’d presumed several issues (such as the lack of F2F) may prove to be detrimental to the outcomes of their research project. After all, this is the very first research project that they have completed at university level. The standard of work is far higher than any projects that I have seen and graded from second year students in my nine years of teaching at university level.*

In week six of the semester, the students were surveyed regarding preferences of F2F or distance learning and what and how they learn best. Approximately one third of the class preferred F2F teaching but the majority of the class preferred distance education or a ‘hybrid’ or ‘blended learning’ approach. The most attractive aspect of distance learning for these students was the ability to watch lectures at their own pace and when they liked, the rewind and pause lectures to understand complex theories. The least attractive aspect of distance learning was the university virtual learning environment, which students feel is “old-fashioned and clunky”. An aspect that revealed and strong and opposing opinion was that learning became “their responsibility” and an



active process. This differs from F2F learning, which they say they feel that they are 'passive receptors of knowledge', rather than 'active seekers of knowledge'.

As with the first case study of academagogy (Winter et al., 2009), the second part of the semester appeared to be a turning point for the subject. The students had their first assignment graded and felt more confident in their own learning. The assignment results revealed that there was a more even 'spread' of higher grades (1-3 = Fail, 4 = Pass, 5 = Credit, 6 = Distinction, 7 = High Distinction) and fewer fails, compared to the previous iteration of the unit (Figure 1) and despite the criteria requiring a more advanced standard of work than in previous years. This also reflected that they could successfully demonstrate achievement of the learning outcomes of the assignment: an awareness of colour and light and their relevance in the natural and built environment; an ability to apply knowledge of colour and light through critical, creative and analytical activities; and knowledge of colour and light, and their psychological properties and symbolic roles within various contexts.

Feedback from the students in the on-campus week nine tutorial identified that more students were happy with the subject delivered via distance education, and the viewing of the lecture content had vastly improved from week six of the semester. By this time, it had appeared that the students were more confident in their own learning ability, and the feedback reflected this. Releasing the lecture content in 'bite-size pieces' gradually over the course of the semester (without reducing the content), increasing the number of worked examples for concept mapping, developing research questions, critiquing literature, identifying 'gaps' in knowledge, reviewing research, developing user needs and design objectives, and scaffolding to assist their understanding how to take concepts to final design all appeared to have beneficial effects to the students learning.

## **Outcomes**

Feedback on student perception of learning which is structured around academagogical principles was generally positive in this case study. The students were surveyed using an online anonymous survey mechanism. They were asked to complete two short surveys, each consisting of 10 statements; the first about their online learning experience, and the second about their perception of who they are and what they like as a learner. Each statement gave them the option



of 'agree', 'disagree' or 'neutral'. An option was also provided for them to make a short comment on each statement if they wished. Approximately half the class responded to the survey.

The results of the first survey indicated that the lack of 'hands-on' teaching remained somewhat of an issue, with approximately equal opinion dividing those who disagreed with the statement that online learning is generally positive, those who were neutral, or those who agreed that it was generally positive. The majority of respondents agreed that on campus tutorials assist with their learning; approximately half respondents agreed that online materials were useful, and half respondents liked the flexibility of online learning.

The second survey showed that in terms of the student's perception of their own learning, the majority of students felt that they were conscientious students. However, the results of the statement 'I have attended all lectures and tutorials for this unit' indicated that approximately only one third of the class had watched and attended all lectures and tutorials for the subject. Further research and analysis is required in order to understand why the majority of respondents feel that as though they are conscientious and take responsibility for their own learning.

For the statement 'I feel as though I am responsible for my own learning (in general)' the majority of students in this context agree; there were no responses showing disagreement but approximately 8% who felt neutral about it. Yet, when asked if they agreed with the statement that 'I feel as though I have taken responsibility for my learning in this unit' whilst the results were very similar to the statement 'I feel as though I am responsible for my own learning (in general)' in terms of those who felt neutral about the statement, there were approximately 8% who disagreed. Again, further research and analysis is required to ascertain why students in this context feel as though generally, they are responsible for their own learning, but some feel that they are not responsible for their own learning in this context.

At this point, the lecturer noted:

*Clearly, there is a gap between our perception of how we are teaching, and how the students perceive that learning. On the one hand, it looks as though they aren't enjoying this experience at all, yet they like the flexibility. Could this in any way relate to the idea of 'choice' that Millennials seem to like? Is online learning too rigid for their like of choice? Admittedly, the only social elements they get are via their on-campus tutorials,*



*but there is the Facebook page that I do know they comment on – perhaps I should have had more involvement in that? I can see that the results of the assignments really helped them in completing tasks in new and creative ways, and this was indeed reflected in the results.*

*Is the learning perceived as relevant to the students, even though it was placed in a ‘real-world context? The content is concise enough, and they are able to access it easily, but is this the issue? Perhaps our perception of online learning is that the Millennials can use their freedom to use technology and not be bound by space or place does not align with how they perceive online learning. Clearly, they see it as useful, but obviously there is something about online learning that they are still uncomfortable in terms of being left to their own devices and still feel that need for F2F communication in teaching and learning.*

Overall, in considering the outcomes, there are several facets to this study. First, transferring the teaching of a subject traditionally delivered F2F to distance education mode challenges the student learner, especially if the student has not been previously exposed to this style of learning. First semester, second year students at this university are typically used to the first-year learning experience which tends to focus on the social aspect of university, and teaching is more pedagogical (teacher-centric) rather than self-directed. Second, academagogical initiatives applied in this context means that if the students are more used to content delivered in a more ‘chalk and talk’ style (F2F) delivered from a teacher-centric focus, it can be difficult to expose them to a different way of thinking and learning, where they can have flexibility and input into what and how they learn. Finally, the virtual learning environment and its associated plug-ins used in the context of this case study do not appear to have the seamlessness that other software such as Skype® manage successfully.

Until future iterations of the colour and light subject are re-delivered, the questions remain: does the delivery of distance education change teaching practices? Does distance education change learning habits, and is distance education actually worthwhile if many undergraduate students generally feel that the online learning experience is not as social or connected as F2F learning? Feedback in this study revealed that most students perceive that in this university the flexibility of online learning far outweighs the lack of social connectivity as many students have the opportunity to socialise during their other F2F subjects in the course. Certainly more interactive lectures may engage online learning and encourage greater student interaction with the content. Another is to question whether students at this level and learning experience are ready for an



academagogical approach. Whilst the students do like input into what and how they learn, perhaps asking them to have input into their teaching and learning at the beginning of their second year may be too daunting. Further research on these aspects is required, taking into account the context of the second year, first semester student at this university. Finally, further research is necessary to explore if subjects delivered via distance education foster lackadaisical attitudes in students to F2F class attendance, as is the perceived issue discussed by teaching staff who deliver only F2F subjects and courses.

### **Conclusion**

Implementing academagogy is not a 'one size fits all' approach, and as such, is very time consuming for the lecturer because of the need to tailor the delivery to the students' requirements (which will most likely change from semester to semester). Extra support and planning time is one of the major requirements for academagogy. Delivering material online also requires the lecturer to play more of a facilitator role - rather than a more directive or authoritative one, which conflicts with traditional teaching methods and requires the teacher to somewhat 'trust the learning process', to step back and allow learning to happen without 'hands-on' direction and guidance.

When taught using academagogical principles, students develop the knowledge and confidence as independent thinkers and this leads to new thought processes. This approach has challenged the students to 'step up to the plate' in terms of their own learning, and they have responded to this challenge, exhibiting that they are empowered by having input into what and how they learn. This has enabled them to broaden their knowledge, being able to think holistically about the interdependence and interrelationships of complex issues that do not have 'hard and fast' rules, but rather are complex, multi-faceted and abstract, such as the case in colour theory.

The academagogical approach requires more than taking elements of other 'gogies'; it is rather an ongoing process applied to tailor the teaching and curricula to suit the students' needs. It requires flexibility with each cohort of students, their generation, and their own learning and life experiences. Distance education has moved on from the time where the lecturer could simply upload teaching materials online and then expect students to undertake their own learning without ongoing support from the teaching staff. Taking this into account, the academagogical



approach has the potential to greatly assist with distance education, particularly in a time where the needs of Millennials have dramatically changed the face of teaching and learning across the globe.

This first implementation of academagogy in a distance education context has not been without its issues, but has allowed the lecturer to be more flexible to the needs of the student cohort. Previous studies suggest that although there have been challenges in applying academagogy, particularly in engineering education, the transition forward from traditional F2F delivery modes in teaching and learning to more challenging realms of student-centered ownership of learning in the creative industries is helping to create a new culture within undergraduate education for facilitators, lecturers and students.

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