Lisa Blaschke, Chris Kenyon
& Stewart Hase (Eds.)

Experiences in Self-determinded Learning

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DEDICATION

To all the children throughout the world who deserve the best education

All proceeds from the sale of this book will be donated to educating children in Africa through Buy1 Give1

ACKNOWLEDGMENTS

Thanks to all the contributors who freely gave of their time, effort and knowledge to enable this book

Thanks to Amanda Nelson for the cover design

A note on spelling:

Contributors to this book come from several different countries and use different versions of the English language. The original spelling of a contributor's work has been unchanged in order to retain the integrity of the work.

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Thomas Cochrane is an Academic Advisor and Senior Lecturer in educational Technology at AUT University's Centre for Learning and Teaching. In 2011 he was awarded as an Ascilite Fellow http://www.ascilite.org.au/index.php?p=awards. His research interests include mobile learning, web 2.0, and communities of practice. His PHD thesis was titled: "Mobilizing Learning: Transforming pedagogy with mobile web 2.0". Thomas has managed and implemented over 40 mobile learning projects, with a recent focus upon Android and iOS smartphones and the iPad as catalysts to enable student-generated content and student-generated learning contexts, bridging formal and informal learning environments. He has over 100 peer reviewed publications.

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Stewart Hase is a psychologist interested in how people adapt. He has spent most of his life working in this area in various ways including as a therapist, educator, academic, researcher and writer. A part of being able to adapt involves learning, hence his fascination with how to help people learn and then change. Now semi-retired Stewart spends his time writing, fishing, playing golf, staying agile and traveling, in between the odd consulting job. He is presently fully besotted with his new hobby, painting. stewart.hase@gmail.com. http://stewarthase.blogspot.com. http://stewarthase.com.au.

Denise Hexom has been a K-12 general and special education teacher, a principal, assistant superintendent and superintendent of schools in both Connecticut and California. She started the first special education for high school students in Queensland, Australia. She also has a corporation, Nascent Group, which helped teachers and principals turned around 37 underperforming schools and districts throughout California. She has been a professor in both education administration and special education and has presented her research throughout the world and has published numerous articles and a chapter in a book, Impact of No Child Left Behind on Special Education. Currently, she is Chair of the Department of Special Education, National University, La Jolla, California.

Chris Kenyon is an adviser and consultant who has wandered the globe in an ongoing search for further learning, while at the same time assisting individuals and large organizations in their desired development. His career has included time in aviation, academia, film and television, publishing, executive development, and house design and building. He was the director of a postgraduate program in 2000, and with colleague Stewart Hase established heutagogy as a new approach to learning. For Chris, and his wife, life is about learning and enjoying new experiences.

Vickel Narayan is a learning and teaching consultant at the Centre for Learning and Teaching (CfLAT) at the Auckland University of Technology. Previously, Vickel was an Academic Advisor (eLearning) at Unitec Institute of Technology from 2009 to 2011. He has a keen interest in Web 2.0 technologies and its potential to engage students and teachers in the teaching and learning process. Vickel is particularly interested in exploring mobile Web 2.0 tools for creating, nurturing and maintaining virtual communities, social connectedness, fostering social constructivism, student generated context and context.

Mark Narayn designs independent community projects based around education. Previously he worked as a musical director (live and national TV), and a sound recordist and producer (broadcast and music studios). Live performing ranged from the Edinburgh Festival and major London venues, through to many a dodgy pub. In 1989, he tried some teaching "for fun", and loved it. This was a totally unexpected epiphany. Education quickly became a deep passion and career. By 2006 he was becoming increasingly unhappy with mainstream education, and began questioning fundamental assumptions, which has led to a learning journey that continues to this day.

Rónán O'Beirne was born in Dublin, Ireland, but has spent his working life in the UK, initially in libraries and information services and more recently engaging with technology and innovation across education. He has worked as a freelance consultant for the University for Industry and the European Commission, and is currently a director at Bradford College, responsible for the College's Virtual Learning Environment and leading the Research agenda. Rónán's research interests include: exploring the changing role of academic libraries in supporting digital scholarship, learner-generated contexts, heutagogy, digital humanities and ethics. In 2014, Rónán co-organised the International Heutagogy Conference in London.

David Price is a Senior Associate at the Innovation Unit, a not-for-profit enterprise committed to solving social challenges, in London. For the past 10 years, David has led numerous international education projects, helping schools gear themselves up to meet the challenges of the 21st century. In 2009 he was awarded the Order of the British Empire (OBE) by Her Majesty the Queen for services to education.

Jill Ridden is currently working as a Resource Teacher of Learning and Behaviour (RTLB) in New Zealand. She has been privileged to work in a number of education settings throughout her career spanning 35 years. She has a Master in Education endorsed in Special Education and has taught school levels year 0 – 8. Jill has also been a lecturer and facilitated in-service programmes at a College of Education, and been a school principal in a rural school. As a senior manager at a tertiary institution she was responsible for staff development and in particular for tutors in their first two years of work. She has worked in the severe behaviour team at the Ministry of Education Special Education.

Robert Schuetz has been employed as an educator for nearly a quarter century, although schools have been his focal point for fifty years. A National Board Certified Teacher, Bob has spent the past twelve years as Technology Coordinator for Palatine High School in Palatine, Illinois, U.S.A. Bob's wife Natalie is a 2nd grade teacher, and

they have four school-age children. Robert's passions include personal wellness, sports, music, and travel. He is a proponent of self-directed learning supported through socially connected networks. When Bob isn't tending to the responsibilities of family or work, he enjoys contributing to learning through his blog, Nocking the Arrow (www.rtschuetz.blogspot.com).

INTRODUCTION

In September 2013, the first book on heutagogy, or self-determined learning, was published. The book, *Self-determined learning: Heutagogy in action* from Stewart Hase and Chris Kenyon, was a collection of chapters describing the history and ongoing evolution of self-determined learning, bringing together the research findings of scholars from a variety of different fields and igniting an interest into the practice of self-determined learning. More and more people began talking about heutagogy, but were not sure how to realize a self-determined learning approach. They were intrigued by the idea of self-determined learning but were puzzled by the question: How do you actually do it? Out of that puzzlement emerged this book, which provides experiences and examples of the practice of self-determined learning in a variety of different settings.

Contributors to this book come from around the world: they are everyday practitioners of self-determined learning who have embraced the approach. In doing so, they have chosen the path less taken and set off on a journey of exploration and discovery – a new frontier – as they implement heutagogy in their homes, schools, and workplaces. Each chapter was written with the intent of sharing the experiences of practical applications of heutagogy, while also encouraging those just starting out on the journey in using self-determined learning. The authors in this book are your guides as you move forward and share with you the lessons they have learned along the way. These shared experiences are meant to be read – or dabbled in – in any way that you want to read them. There is no fixed recipe or procedure for tackling the book contents.

How This Book Is Organized

Because it is learner-centered, self-determined learning focuses on the learner as the primary driver of the learning process and experience. It is holistic so that the approach incorporates all parts of the teaching and learning environment and its many players: the learner, the teacher, the curriculum designer, the institution, and the policy-makers. This book is organized according to those key components: the basics, the learners, the teachers, and the curriculum. Although each chapter may focus on a specific aspect (learner, teacher, etc.), you will find that each part within the story is interwoven with the others, and in some way, each part influences and contributes to the success of the whole.

The book begins with a section on **The Basics**, which describes the fundamental tenets of self-determined learning. In the first chapter, Stewart Hase introduces you to heutagogy and sends you on an exploration, where you can decide the path that you will take, and then search for, gather, and sort through the information you need to fill in the knowledge gaps. Next, Stewart provides his perspectives on heutagogy and the role of human agency and systems thinking, and how these are encapsulated in the form of the search conference. If you want to learn more about the foundations of self-determined learning, this section is a good place to start.

We then move onto the heart of heutagogy: **The Learners.** This section focuses on heutagogue experiences and approaches for developing self-determined learners. In the opening chapter, Bernard Bull gives guidance for helping learners in non-heutagogical (teacher-directed) environments on how to practice self-determined learning. Bernard's scenarios demonstrate the ways in which learners can become more self-determined in their learning approach, even while meeting the requirements sanctioned by an institution. The next chapter, from Lisa Marie Blaschke, provides insights into how to help students who are caught in the pedagogy-andragogy-heutagogy (PAH) continuum move forward in practicing self-determined learning using social media tools. Melanie Booth then takes on the topic of assessment and heutagogy in her contribution, encouraging readers to become self-authoring learners using two key assessment approaches: external guidance and feedback, and self-assessment. Next, Rónán O'Beirne reflects on the changing pathways to learning and reports on the approaches to self-determined learning that learners are taking today. In the last chapter of this section, Jackie Gerstein shares her thoughts on the ways in which developments on the web have influenced and continue to influence educational developments, particularly for learners. Her chapter ends with a discussion on how to change teacher mindsets, and this sets the foundation for the discussion in the next section on the teachers.

Stewart begins **The Teachers** section with a chapter describing the skills needed by today's learners in the workforce, and then those needed by the teachers who are meant to educate them. In doing so, he redefines the role of the teacher as one of learning leader, who is armed with attributes and skills that enable him or her to manage ambiguity, foster engagement, learn, and use open systems thinking. Following this discussion on the *learning leader*, David Price shares his experiences of creating and participating in communities of practice that support the ongoing professional development of teachers in ways of their choosing. Such a self-determined learning approach, where teachers are also learners, gives autonomy back to the teachers in what they learn and how they learn it.

Jill Ridden uses a similar approach to using communities of practice to support professional development for teachers in special education. Her story gives us insight into the critical and influential role that an institution plays in sustaining self-determined learning within the constraints of the appraisal process. Next, Robert Schuetz tells us about his experiences using blogs to create learning legacies. In this chapter, Robert discusses how the experience of blogging can improve teacher practice by supporting self-determined learning and reflection, while chronicling the teacher's learning path and experiences so that others can benefit from them. Wrapping up the section, Denise Hexom shares her experiences of having faculty staff use iPads as a means of introducing self-determined learning into the corridors of higher education.

Next, we move to the section on **The Curriculum**, which contains the most author contributions and focuses on the ways in which curriculum designers can reinvent their course design and delivery to support self-determined learning. This section shares the experiences and approaches that are being used by

researchers and practitioners in a variety of different contexts. Thom Cochrane and Vickel Narayan start the section by proposing a framework for incorporating mobile social media into the curriculum in order to create a fully student-centered, self-determined learning environment. Using online communities of practice within a higher education environment, their framework brings together the critical elements of the learner, the course, the instructor, and the support services to create an environment that cultivates and supports creative teaching and learning practice.

Up next is Jon Andrews, who shares his experiences of designing and implementing a learner-centered curriculum at his junior school. Using the FACE (flexible and negotiated curriculum, assessment, contracts, and enquiry) model, Jon and his staff were able to develop a teaching and learning environment that creatively engages students by focusing on their passions, while at the same time meeting the requirements mandated by government. In his chapter on *One Way of Introducing Heutagogy*, Chris Kenyon tells us of his experiences and success in carefully guiding workshop participants toward self-determined learning using an approach called Deedeekun. Eric Duft then presents the SIDE model as a best practice approach that can be used for realizing heutagogy in online environments and for potentially improving student retention. Finally, Mark Narayn provides a narrative of his journey to becoming a heutagogic learner and applying the approach in developing learning projects.

As you will see, these shared experiences are stories of change, some successful, others only partially so. These stories demonstrate how change may sometimes come slowly and may take time. In addition, for a change to be sustainable, it needs to occur at a number of levels, and it begins with the first step that you or your learners or your policy makers take. Whatever your environment, you will need a holistic approach for implementing self-determined learning in order for it to be sustainable. A chain is only as strong as its weakest link, and you must know where to concentrate your efforts. In some cases, it may be the institution that enforces constructs that keep you from achieving your goals. But in others, it may be the teacher, the learner, or the policymaker who influences whether or not you will succeed.

That said, there *are* steps that that you can undertake to begin moving education toward more learner-centered and self-determined learning. This book is designed to help those at the learner, teacher, and policy/management levels to initiate, sustain, and promote that change, and we hope these stories will guide you along your way. These are stories of the beginnings of grass-roots change, and there are many, many more stories out there. We hope that you will share your experiences of realizing self-determined learning within your organization and the lessons you have learned. We have provided the following online networking resources to help make this happen:

Heutagogy Community of Practice (CoP): http://heutagogycop.wordpress.com/

Heutagogy CoP LinkedIn group discussions: http://www.linkedin.com/groups/Heutagogy-Community-Practice-4776262

If you have success stories and additional suggestions for realizing self-determined learning, please share them. In sharing our experiences with each other, we learn from each other and continue to build upon the existing body of knowledge in self-determined learning. We look forward to connecting with you, reading of your heutagogical adventures, and furthering the discussion on self-determined learning in practice.

Lisa Marie Blaschke, Chris Kenyon and Stewart Hase

THE BASICS

1 AN INTRODUCTION TO SELF-DETERMINED LEARNING (HEUTAGOGY)

Stewart Hase

Summary

There is a good deal that is provocative in the theory and principles surrounding self-determined learning or heutagogy. So, it seems appropriate to start off with a, hopefully, eyebrow-raising observation. One of the key ideas underpinning self-determined learning is that learning, and educational and training are quite different things. Humans are born to learn and are very good at it. Learning is a natural capability and it occurs across the human lifespan, from birth to last breath. In contrast, educational and training systems are concerned with the production of useful citizens, who can contribute to the collective economic good. Education and training is largely a conservative enterprise that is highly controlled, is product focused, where change is slow, and the status quo is revered. Learning, however, is a dynamic process intrinsic to the learner, uncontrolled except by the learner's mental processes. Self-determined learning is concerned with understanding how people learn best and how the methods derived from this understanding can be applied to educational systems. This chapter provides a relatively brief introduction of the origins, the key principles, and the practice of self-determined learning. It also provides a number of resources to enable the interested reader to take learning about the approach further.

Doing Self-determined Learning

When I started writing this chapter I had an uneasy feeling of *déjà vu*. When I read the first draft, I knew I had been here before, many times. It was like giving a lesson or lecture that has been given before, with just a few modifications to bring it up to date. So, I asked myself a self-determined learning question of why I was writing the chapter or, more accurately, for whom was I writing.

The answer was that the readers of this book are likely to be quite heterogeneous with respect to their understanding of self-determined learning. Some readers will be very sophisticated and will be looking for something new. Others will know little or nothing about self-determined learning and will be seeking a basic understanding. The rest will be somewhere in between these two extremes and have different needs and concerns.

At the heart of self-determined learning is that the learner is at the centre of the learning process. Learning is intrinsic to the learner, and the educator is but an agent, as are many of the resources so freely available these days. It is now so easy to access knowledge and skills (competencies), and in informal settings we do this all the time, and we do it well. Learning is complex and non-linear, despite what the curricula might try to dictate. In addition, every brain is different as a result of its experience (as brain research tells us). Each brain will also change as learning takes place with new hypotheses, new needs, and new questions forming, as new neuronal connections are created.

My draft chapter made many of the mistakes that we often make in designing learning experiences. After a good deal of reflection during a long bicycle ride along the Australian coast, I decided that I needed to practice what I do in the 'classroom' and online. As a result, this chapter is designed to meet multiple needs, and there are three options available to the reader.

These options are:

Option 1: Be a self-determined learner and use the resources provided below, and those you find yourself, to explore without any particular structure other than that made by you.

Option 2: Accept a little guidance from me and then move out on your own at whatever point you wish

Option 3: Follow the summary of self-determined learning provided by me in the "formal" part of this chapter.

Option 1: Self-determined Learning

This first option is for those of you who just like to play in sand pits and explore by yourselves. *Go to the 'All Things Heutagogy' site on Bibblio* at https://bibblio.org/u/The%20Heutagogy%20Collection.

Almost everything that there is to be found about self-determined learning can be accessed on the Internet and has recently been curated in the Bibblio site. There are four collections: articles, slide presentations, video presentations, and web-sites/blogs. We upgrade the collection regularly. Have a browse around.

Or you can simply *search the internet* using the term *heutagogy* through your favourite web browser.

You can also *contact any of the authors of this book or other resources* by 1) email, 2) on the Heutagogy Community of Practice (CoP) website (http://heutagogycop.wordpress.com), or 3) the discussion group on LinkedIn (https://www.linkedin.com/groups/Heutagogy-Community-Practice-4776262). Have a chat with them if there are things you'd like to discuss further.

You will find references to all current articles, book chapters and books on the *Heutagogy CoP website*.

It's how we learn: by exploring, asking questions, reading, talking, and doing.

Option 2: Andragogy Towards Heutagogy, or Self-determined Learning

The second option is to accept a little guidance from me and, at least initially, follow some of my suggestions.

See Option 1 for some useful sites, such as the Heutagogy Community of Practice website and LinkedIn discussion group.

- An initial suggestion would be to *read the very first article on heutagogy* that Chris Kenyon and I wrote in 2000. We've come a long way since then but the paper had an impact on quite a few people. You can find the paper at: http://pandora.nla.gov.au/nph-wb/20010220130000/http://ultibase.rmit.edu.au/Articles/dec00/hase2.htm/
- If you have an hour to spare you might like to *watch a keynote address* I gave in New Zealand in 2013. It provides all the basics about heutagogy and demonstrates it in action. It can be found at: http://heutagogycop.wordpress.com/2014/07/17/a-trouble-maker-stewart-hases-talk-about-heutagogy/.
- If you'd like to read a current update on self-determined learning and its underpinnings in constructivism, humanism, capability and brain research (a more recent addition), then I suggest you have a look at a paper I've deposited on Slideshare at: http://www.slideshare.net/DrStewartHase/selfdetermined-learning.

  This paper also summarises most of the learning principles that self-determined learning proposes - they are also listed below in this chapter.
- You can *read some more about the brain research that describes how we learn and that supports heutagogical principles*: http://heutagogycop.wordpress.com/2013/03/31/providing-a-compass-neuroscience-heutagogy/ or a Slideshare presentation at http://www.slideshare.net/DrStewartHase/how-humans-learn.
- This is our second book on self-determined learning. The first is titled, *Self-Determined Learning: Heutagogy in Action* and was published by Bloomsbury in 2013. That book includes a number of case studies involving heutagogy, like this present volume. If you *can get hold of a copy* it will add to your understanding about heutagogy. Fred Garnett has summarized the book in a curated conversation in Slideshare: http://www.slideshare.net/fredgarnett/selfdetermined-learning-the-craft-of-heutagogy
- Lisa Marie Blaschke (2012) has written one of the best *literature reviews of heutagogy*, especially in relation to lifelong learning: http://www.irrodl.org/index.php/irrodl/article/view/1076/2087. And there is a Slideshare presentation at: http://www.slideshare.net/lisamarieblaschke/sustaining-lifelong-learning-a-review-of-heutagogical-practice?related=1.
- You might be interested in *heutagogy and e-learning*: You could try: http://bit.ly/VIL9fm for a 2009 paper. Further references are available in the 2013 review article above and in Blaschke (2012).
- Perhaps you are interested in how heutagogy might be used in running training workshop: http://www.sit.ac.nz/documents/Publications/SITJAR%20AR%20edition%20A.pdf.

By now, or even before now, you have probably already started thinking about how you might use self-determined learning in your practice, and may want to read further. There are a number of useful references in this chapter and throughout this book, as well as in some of what you have already read. You are a competent learner – you know where to look.

Option 3: Pedagogy Towards Andragogy

The third option is to read the following summary about heutagogy and then explore whatever resources take your fancy.

The Origins of Heutagogy, or Self-determined Learning

In his book, *Open*, David Price describes heutagogy as one of the three ugliest words in the English language along with pedagogy and andragogy. He also makes the point that words like these dissuade people from investigating further. David may well be right, which is why we prefer to use *self-determined learning* as the definition of heutagogy in its stead. But even that causes problems because people tend to confuse self-determined learning with self-directed learning and the two are quite different things. *Self-directed learning* has to do with the ability of people to manage their own learning, of knowing where to find resources. Self-determined learning, as you will see as you work though this chapter is something quite different.

Chris Kenyon, who developed the theory of heutagogy with me, and I believe that language is critical in making and communication meaning. So, heutagogy was derived from the Greek for self, ηαυτος, and the "gogy" means "study of": the study of self-determined learning. We thought it was pretty elegant at the time, even though it is a bit of a tongue twister.

Before getting onto the theories that underpin the idea of self-determined learning, I'd like to clear up a couple of confusions that appear regularly on blogs and the literature. The first of these is that self-determined learning is not something we do to people. People are naturally self-determined learners pretty well from birth. What self-determined principles advocate is creating an optimum experience for people to be self-determined learners.

Heutagogy also doesn't have anything directly to do with *self-determination theory* (SDT). SDT is a theory of motivation related to acting in healthy and effective ways (Ryan & Deci, 2000). However, heutagogy is related to the philosophical notion of self-determinism and shares a common belief in the role of human agency in behavior.

The idea of human agency is critical to self-determined learning, where learning is learner-directed. *Human agency* is the notion that humans have the capacity to make choices and decisions, and then act on them in the real world. However, how experiences and learning bring people to make the choices and decisions that they do make, and what actions they may then take is a very complex matter. What we are concerned with in self-determined learning is that people have agency with respect to how, what, and when they learn. It is something that is intrinsic to each

individual person. Learning occurs in the learner's brain, as the result of his or her past and present experiences.

Two theories that have strong connections to the idea of human agency and the development of self-determined learning are *humanism* (specifically Carl Rogers, 1969) and *constructivism* (the work of Vygotsky, 1978, and others). In short, humanism makes the point that humans are hard wired to learn and are really adept at it. We are good at asking questions, exploring, making hypotheses and testing them, and making connections. Humanists were also responsible, through Carl Rogers (1969), for the notion of *student-centred learning*, which morphed into *learner-centred learning* (e.g. Armstrong, 2012; Long, 1990). The notion of placing the learner at the centre of the learning experience is a key principle of self-determined learning. This principle is the opposite of teacher-centric or, perhaps more accurately curriculum-centric, approaches to learning. This is not to say that the curriculum is not important, just that it needs to be geared to the learner – flexible, adaptable, and be a living document that is open to change.

Teacher-centric learning is an artifact of the industrial revolution when an education system was designed to meet the needs of the factories (Ackoff & Greenberg, 2008) and to "make the industrial wheel go around" (Hase & Kenyon, 2013b). It is time for a change to learner-centred learning and the time is right with easy access to knowledge and skills through the Internet, high-speed communication and 'devices'. Education can now focus on more complex cognitive activities geared to the needs of the 21st century learner, rather than have its main focus on competence (Blaschke & Hase, 2014; Hase & Kenyon, 2013a).

Constructivism is based on the idea that people make their own personal sense of the world, or reality, from their experiences. Again, this is consistent with human agency: the learner is actively involved in his or her own learning. Recent brain research has found that emotion plays a critical role in learning by enhancing memory for the experience with which it is coupled (e.g. Damasio, 2003; Dolcos et al., 2004). If we take the tenets of constructivism and the role of emotion in learning, the case for experiential learning is very powerful indeed.

Two other theories that heutagogy is built on are *complexity theory* (e.g. Davis and Sumara 1997; Doll 1989; Doolittle and Hicks, 2003; Lissack, 1999; Waldrop, 1992) and *systems thinking* (Ackoff & Emery, 1972; Emery, 1993). These theories recognize the importance of the environment and context in learning, and the complex interplay between them (see Hase, 2009, p. 46 for a summary). This has been taken further in the shape of *learner generated contexts* by Whitworth (2008) and Luckin et al (2012).

The other very influential idea underpinning heutagogy is *capability* e.g. (Hase & Davis, 1999: Stephenson, 1996; Stephenson & Weil, 1992; Phelps, Hase, & Ellis, 2005). While competencies are essential for life, capability concerns the future. It is the capacity to use ones competencies (knowledge and skills) in novel circumstances as well as the familiar. Capable people have justified high self-efficacy, are able to work well in teams and know how to learn.

The literature is replete with anecdotes, and qualitative case studies of experiments with different approaches that are learner-centred and consider human agency in learning. More recently, a lot of this has been in the general area of e-learning where self-determined learning has found something of a niche (e.g., Blaschke, 2012; Chapnick & Meloy, 2005).

One of the important sources of evidence for how people learn is found in brain research, which has become increasingly sophisticated in recent years. As a result, our understanding of how people learn has increased dramatically. The interested reader can read more about this research in Hase and Kenyon (2013b) and the "Paper on the Origins of Self-determined learning" that is curated at:
http://bibblio.org/o/Dm/heutagogy-articles.

A briefer summary can be found at

http://heutagogycop.wordpress.com/2013/03/31/providing-a-compass-neuroscience-heutagogy/
or a Slideshare presentation at
http://www.slideshare.net/DrStewartHase/how-humans-learn.

Key points about this research and how it relates to self-determined learning are provided below.

- *Humans look for patterns to make sense of their experience*. Each human brain is different as a result of past experiences so the patterns we make are unique. As new information is incorporated into the individual's current schema, it is impossible to know how each person sees the world. Each person will now be asking all sorts of different questions, creating new hypotheses and motivation to explore very specific issues.
- This complex process has been wonderfully summarized by Davis and Sumara (1997) as, "…a process of organizing and reorganizing one's own subjective world of experience, involving the simultaneous revision, reorganization and reinterpretation of past, present and projected actions and conceptions" (p. 107).
- As Hase and Kenyon (2013b) point out, "...associations are made by the learner, not by the teacher, no matter how hard teachers might try to make them on the learner's behalf" (p. 26).
- *We are hard wired to learn, and children are excellent hypothesis makers and testers, who naturally explore and analyze their experiences*. We are natural learners. Satisfying and challenging learning experiences seem to produce dopamine and a subsequent sense of reward or achievement.
- *The more elaborately we are exposed to new information or experience, the more likely it is to be stored in memory: an essential component of learning.*
- *Memory is very fragile.* Repeated exposure to information and skills improves learning. Humans have very poor attention spans and need high levels of stimulation. We have a built-in capacity for remembering images better than text, particularly dense text. Small bytes of information and limited concepts assist memory.

- *Associated emotion makes memories more indelible.*
- *Brain plasticity research involving helping people relearn after they have experienced brain damage can tell us a lot about the techniques that can assist people to learn.* These techniques are very focused, designed to access very specific parts of the brain.
- *Metacognitive processes, thinking about what we are thinking, have been shown to play a role in learning* (e.g., Dunlosky & Metcalf, 2009; Fleming et al, 2010; Fleming & Dolan, 2012). Specifically, there is evidence that reflection and meditation have been shown to improve memory and self-awareness.

A comprehensive description of the underpinnings and research supporting heutagogy can be found in a paper on self-determined learning at:
http://www.slideshare.net/DrStewartHase/selfdetermined-learning.

What we can discern from all this is that learning is extremely complex, and so too is designing appropriate learning experiences. Current definitions, dictionary and psychological, have not kept pace with this complexity. Thus we (Hase & Kenyon, 2013b) think that we need to distinguish between at least two levels of learning. One is the acquisition of knowledge and skills, or competencies. This is largely the level that most educational and training enterprise seeks to attain. The second has to do with adaptation, the changing of cognitive schema, creativity, and higher order cognitive activity. Self-determined learning is concerned with both these levels.

To quote from Chapter 8 of this book:

At the heart of the process of learning is the realisation of human potential. When humans explore and experience they are actively engaged in finding out how to manage their world, inner and outer. It's what we do from our arrival on this planet to when we leave it. The enterprise of learning, which is any educational or training activity that is engineered to provide learning, should attempt what humans do naturally, to achieve their potential, otherwise it is an empty process.

The Principles and Practices of Self-determined Learning

One of the most common questions about self-determined learning is how it works with situations where the learning of specific competencies is important. Firstly, it is important to state that the principles and practice of self-determined learning do not subordinate the learning of competence to the adaptive learning described above. Competencies are critical to life and to being adaptive.

Secondly, there is no contradiction with developing and then demonstrating competence and self-determined learning. What we are concerned with is process and the ability of the learner to be in control of learning. The facilitator of the learning can make the required competencies quite clear and provide all the requisite resources. But the process of attaining the competencies can be quite flexible and learner-centred.

I often conduct workshops that require very specific outcomes but I use self-determined learning approaches. (If you would like to read how to do this you can read Chapter 2 in this book on *Heutagogy and Systems Thinking* and go to http://www.sit.ac.nz/documents/Publications/SITJAR%20AR%20edition%20A.pdf, where there is an article describing more about the process.)

The study of self-determined learning has led to a number of principles and practices. They are listed below but may not be exhaustive; others are sure to come to light in the course of your reading of this book. Those listed have been taken from Hase and Kenyon (2013a, p. 28), Blaschke & Hase (2014; in press, 2015), Kenyon & Hase (2013), and Blaschke (2012), but are derived from most publications on the topic since 2000:

- involve the learner in designing their own learning content and process as a partner;
- make the curriculum flexible so that new questions and understanding can be explored as new neuronal pathways are developed;
- recognize that learning is non-linear;
- individualize learning as much as possible;
- provide flexible or negotiated assessment;
- enable the learner to contextualize concepts, knowledge and new understanding;
- use experiential learning techniques;
- facilitate collaborative learning;
- facilitate reflection, and double loop and triple loop learning (metacognition);
- provide lots of resources and let the learner explore;
- develop research skills including how to be discerning about ideas and content;
- differentiate between knowledge and skill acquisition (competencies) and deep learning;
- recognize the importance of informal learning and that we only need to enable it rather than control it;
- have confidence in the learner; and
- recognize that teaching and teacher control can become a block to learning.

As you can see from this list, the learner and the learning leader are in partnership in the learning process with the learner at the center of the design process (Blaschke & Hase, 2014) as shown in Figures 1.1 and 1.2 below. Central to these principles is what is happening in the learner in terms of how their thinking is changing as learning takes place. Thus, learning is a dynamic, non-linear rather than linear process. The curriculum, including assessment, needs to follow suit through negotiation with the learner. You can probably guess, too, that in formal education settings all this can be a bit of a challenge. As Kenyon and Hase (2013b)

have pointed out, successful application of self-determined learning requires shifts of thinking at the institutional levels that control curriculum design.

The self-determined learning principles described above have been applied in the examples found in this book and to a number of settings including:

- lifelong learning (Blaschke, 2012; Eberle, 2013);
- workplace learning (Blaschke & Hase, 2014; Hase, 2013; Hase & Kenyon, 2003; Ramsay, Hurley and Neilson, 2013);
- e-learning (Blaschke, 2013; Chapnick & Meloy, 2005; Hase, 2009; McNickle, 2003; Msilav & Setihako, 2012);
- community education (Foskey, 2013);
- practitioner development (Canning, 2013);
- postgraduate education (Dick, 2013; Kenyon & Hase, 2010; Kerry, 2013; Tay & Hase, 2004, 2013);
- teacher education (Ashton & Elliott, 2007; Ashton & Newman, 2006); and
- the design of collaborative assessment (Eberle & Childress, 2009).

The Design of Self-determined Learning

One of the comments I often receive about heutagogy is that it seems chaotic, that it is more useful when applied to informal learning than formal. The majority of criticisms of its approaches have come from those in formal settings where the rigid curriculum is seen as sacrosanct. My corporate training workshops may appear unstructured, as do my classrooms and lectures in university settings. I have even adopted the "flipped keynote address", as Fred Garnett called it at the London conference on heutagogy in 2014. Like the flipped classroom, the flipped keynote focuses on participant involvement and the keynote speaker is more of an advisor or guide.

However, appearances are deceptive: a lot of planning and preparation goes into the design of formal education and training programs. Self-determined learning is a dynamic process and this needs to be considered right from the start when planning the learning experience, at least in formal settings. Lisa Marie Blaschke has designed a couple of useful figures that describe the design process. These are shown in Figure 1.1 and Figure 1.2 below.

As depicted in Figure 1.1, the learning contract, complete with needs and outcomes and assessment, must be able to shift as the learner changes. While many learning resources can be arranged beforehand, the learning leader and the learner need to be prepared to uncover new resources in response to new inquiry, new question, and new contexts. Formative feedback, that can be in the form of assessment, and reflection are critical components of the learning activity. They are ongoing and not just tacked on the end of a course or workshop as an evaluation. Joint monitoring is ongoing. As Figure 1.1 shows, even though the process appears fluid and is

certainly non-linear, outcomes can still be assessed if required. It is critical that the desired minimal outcomes are communicated to the learner right from the start but that the scope for advancing further is open.

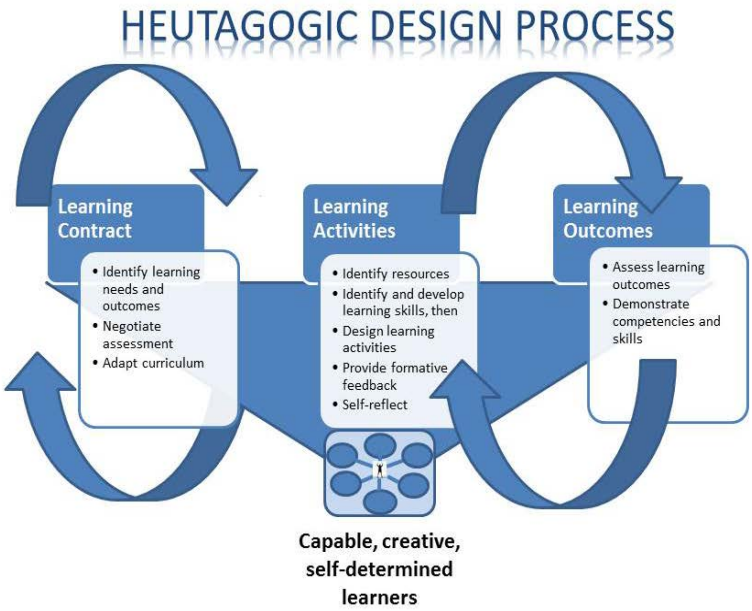

Figure 1.1. Heutagogic design process (Blaschke & Hase, in press, 2015)

Figure 1.2 provides six key elements to consider when designing a learning experience, whether face-to-face, online, or a hybrid of both. The learner is at the center of the process and is a partner. Clearly there is a curriculum or program outline, depending on the type of learning experience, to start the process. It is not an Open Space approach although in some circumstances this might be appropriate such as in corporate training workshops. However, at the first interaction between learner and learning leader, everything is open to negotiation and the balance of control shifts. (More details about the heutagogic design process and elements can be found in Blaschke & Hase, in press, 2015).

Finally, a word about informal learning. Most learning occurs outside the classroom or training room. It is easy now to obtain information and skills (competencies). We don't need formal settings most of the time unless we want some form of accreditation. How we harness this learning is a major issue to consider in the information age of the 21st century. I think this is where the future of education lies, in recognizing that people do not learn much in formal settings, learning occurs elsewhere. The question is, how do we recognize and accredit such learning?

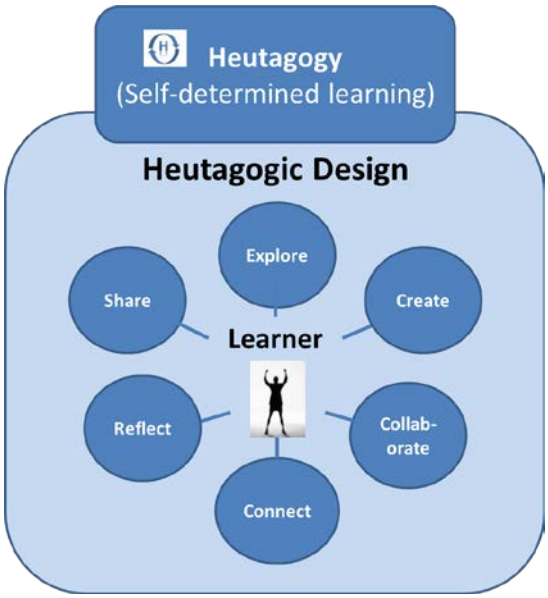

Figure 1.2. Heutagogic design elements (Blaschke & Hase, in press, 2015)

Lessons Learned

The shifting of control from the 'teacher' to the learner is one of the key activities in self-determined learning. However, some learners are not always immediately ready for the approaches we use. It is sometimes necessary to ease the learner into self-determined learning and to gradually relinquish the formal control. I find that asking learners right from the start about how they learn when not in the "classroom" is useful. Then I tell them that their experience with me will be similar except perhaps with a little more guidance.

Barbara Brandt, described her experience with a heutagogic approach as a student in an online program in our previous book (Brandt, 2013). She initially found it challenging, then exciting. Barbara later found it difficult to adjust to more traditional methods in other courses. Tay and Hase (2004, 2013) found that participants in a conceptually challenging research program did indeed demonstrate a shift from being pedagogic to andragogic to self-determined learners. In summary, experience shows unequivocally that once learners have engaged in self-determined learning they become fully committed to the approach.

It is also clear that the inherent conservative nature of education stands in the way of innovative learning approaches. Despite the demonstrated success of Steiner and Montessori schools (Lillard, 2005; Lillard & Else-Quest, 2006; Woods & Woods, 2005), for example, that use a lot of the principles described in this chapter, the brain research and the vast amounts of other evidence, education policy makers and politicians still have a didactic view of education. Rather than science they rely on opinion and belief. It is a problem that is wonderfully described by Sir Ken Robinson in his TED talks about creativity and education (have a look at them if you haven't already: https://www.youtube.com/user/sirkenrobinson).

Interest in self-determined learning has increased dramatically since its first mention in 2000. There is a lot of innovative learner-centred learning going on, all over the globe. My Twitter address is alive, on a daily basis, with links to people describing what they've been doing in the self-determined learning space. More and more articles about the topic are finding their way into the formal literature. And this second book on self-determined learning has some new stories about forays into this exciting way of understanding how humans learn.

Resources

Pretty well anything you want to know about self-determined learning that is available on the internet (some publications are not as easily available but you know how to access those) can be found in the All Things Heutagogy Bibblio site:

https://bibblio.org/u/The%20Heutagogy%20Collection

There are four main collections: slide presentations, video presentations, articles, and websites/blogs for you to browse through.

Our previous book, Self-Determined Learning: Heutagogy in Action, is published by Bloomsbury and is in most university libraries. It will be re-published in paperback in March 2015.

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2 HEUTAGOGY AND SYSTEMS THINKING

A Perfect Marriage for Conducting Learning Experiences

Stewart Hase

Summary

The combination of the ideas of human agency and purposeful systems is a marriage made in heaven at least from the perspective of self-determined learning (heutagogy). In this chapter I describe how I have been facilitating learning experiences using self-determined learning principles and the search conference, a child of systems thinking.

Human Agency

We've already covered the basics of heutagogy and its principles in chapter 1 of this book. That chapter also provides a host of resources including papers, book chapters, and blog, so I won't go over old ground. However, I will remind the reader that the central underpinning theme and perhaps justification for self-determined learning is the principle of human agency.

Human agency assumes that people make choices and consider the ways in which they make choices, both consciously and unconsciously. In the context of learning, it means that people are active agents in their learning. In heutagogical terms, people are self-determined and are agents of their own learning in a number of ways.

These include:

- Being motivated to learn.
- Expending effort in the activity of learning.
- Choosing the focus for their learning.
- Determining what is important and what is not.
- Assessing whether or not learning occurs.
- Consolidating the new learning.

People make their own sense of the world. Their final judgment may be influenced by others, but it is not dependent on them.

The notion of human agency has also been applied to human-made systems (Ackoff & Emery, 1972). A system can be an individual, group, team, or organization. For the purposes of this chapter, education is considered as a system, as is a learning experience. When talking about systems, however, it makes more sense to think of them as being purposive rather than having agency. Purposive systems have objectives and are ideal seeking.

Three ideas from General Systems Theory and Complexity Theory are also useful here before we get into the link between purposeful systems and heutagogy. The first is that all the parts of a system are interrelated so that each part affects the others: thus, a system is more than the sum of its parts. The second idea is that a system interacts with its environment so that each affects the other. Finally, systems largely strive for homeostasis as a means of survival. However, they can also make incremental changes in a process known as bifurcation where new adaptive change is made to alterations in the environment.

General Systems Theory distinguishes between two types of systems. One type is *closed systems* that tend to ignore their environment and are inward looking as a result. These types of systems are at greater risk of failure or not surviving because they are not adaptive. An *open system* behaves differently by constantly scanning its environment and is therefore more likely to be able to change or bifurcate if the environment changes. Remember that a system operates within other systems, like individuals within teams, or teams within organisations.

Those interested in pursuing this topic further might be interested in having a look at General Systems Theory, from which the idea of purposeful systems theory stems, and also at the much more recent notion of complexity theory and adaptation. Some references are provided at the end of this chapter (Ackoff & Emery, 1972; Emery & Purser, 1996; Weisbord, 1992).

Heutagogy and the Search Conference

One of the processes for organizational development and change to come out of purposeful systems is the search conference (Emery & Purser, 1996; Weisbord, 1992). Briefly, a *search conference* is a set of democratic processes that use the collective intelligence of a system to plan, to be strategic, to consider options and, perhaps, to change course. It involves, as much as possible, getting a system in a room and having people:

- develop a shared agenda;
- share all relevant information to the task at hand;
- scan their environment;
- identify a desired and shared future;
- determine opportunities and threats;
- examine their internal strengths and weaknesses; and then
- develop a way forward depending on what the objectives might be.

Participants are urged by virtue of the process to raise problems and concerns, and to examine solutions. Critically, there is a high level of engagement, and participants can contextualize issues so that they have personal meaning.

In 2000, when Chris Kenyon and I started to put heutagogy into practice, I'd been messing around with the joint ideas of human agency and purposeful systems for

a number of years. Chris had completely unreconstructed constructivist ideas. When we started talking about heutagogy, the marriage became even more obvious to us. Both ideas made sense in terms of how people learn best, by immersion and action. As a result, in our early papers the work of Fred Emery, Russell Ackoff, and others is mentioned. However, it was not until more recently, after a decade of experimentation, that the relationship has become even clearer. Such is the process of inquiry.

What follows is a description of how heutagogical principles and search conference techniques can be combined in the delivery of training workshops, or for that matter, probably any learning experience involving groups.

In recognizing human agency, both heutagogy and the search conference place the person at the centre of the action, whether it involves learning in the first instance or organizational development in the latter. Both are emancipatory and democratic, and involve immersion. The emphasis is on what is happening in the mind of each person, releasing it, and then enabling action. It is the moving from the unconscious to the conscious.

I've been experimenting with using principles of heutagogy and systems thinking in training workshops for a number of years (Hase, 2011, 2013). Mostly my workshops involve topics such as leadership development, adaptation and change, coaching skills development, team building, negotiation, and conflict resolution. It may be the case that these types of workshop topics lend themselves well to systems thinking and heutagogy because inevitably I am dealing with systems.

Most problems in organisations are at least partly due to systems errors that are largely invisible to the players. When problems arise, a training/coaching/ personnel development solution is often seen as the answer, when usually the issue is much deeper. But training solutions are easier to manage for even the most diligent of CEOs.

Many years ago I was invited by an organization to conduct stress management workshops. It appeared that there had been a spike in sick leave due to stress. There were around 100 people in this workplace, and the CEO and training manager wanted me to run five one-day workshops. I was a bit reluctant to dive right in without more information. My experience was that little stress-related behavior change is going to come out of a one-day training workshop by itself. The CEO agreed that I could spend a few hours in the organization to talk to people and to look around.

It became obvious to me, rather quickly, that the problem was not about how people managed stress. Instead, the problem had to do with the causes of stress, which were related to recent changes in workplace practices and rosters, and the unfortunate attitude of a new senior manager. I explained to the CEO that we needed to take a different approach than just training, and to look at the workplace design and improve management-employee relations. My provisional report included the advice that no amount of training would make the stress go away.

His decision was to proceed with the training solution, and we parted company. The truth of the matter was that running some workshops ticked boxes for the organisation's executives who were concerned about the incidence of illness due to stress. It also meant that the more difficult task of improving the system could be avoided. Two years later the organization was in the hands of administrators.

It was these sorts of experiences that led me to rethink how I went about conducting training programs. At the time I had been introduced to General Systems Theory by Alan Davies, which became the focus for my doctoral study in the early 1990's. I had watched Alan conduct a number of search conferences and was captivated by the openly democratic process and, more so, by the way the process placed the participants at the centre of the action. I'd undertaken some research previously on human agency in relation to health behavior, but here was human agency in full flight with groups working towards a common goal. There was a massive amount of learning going on during the process for both the individual *and* the system. The search conference process means that people are exposed to new information from a variety of sources including other participants and documents that are tabled for the information of the group. Furthermore, new approaches to solving identified problems, inevitably arise due to the process.

Using more learner-centred approaches in the university classroom and in corporate training was not new to me as I'd been a fan of constructivism for many years and loved experiential learning. I'm not sure how much of an influence the experiential learning was, but I clearly remember Mr. Cook, my primary school teacher when I was 10 and 11 years of age. He used a very experiential approach to education, and we worked on individual and group assignments that were self-paced. He would tick off our "assignment cards" when we had successfully completed work. I cannot recall him ever talking "at us", although I do remember that we were often in charge of determining the context of the learning and of applying that learning. For example, as part of my English assignment for the year, I edited the very first school newspaper and several editions, and many of my classmates submitted columns to the paper. In 1960, Mr. Cook was well ahead of his time. Maybe some of that DNA rubbed off because learner-centred learning seemed to make sense to me from the first time I heard about it.

In the search conference, I found a set of techniques that took me one step further. It provided me with a structured process that made sense and was pedagogically sound. Then along came Chris Kenyon and a broader application of my experiments to an entire curriculum – and heutagogy was born.

The Role of Attitude in Accepting Human Agency

This marriage is not for everyone, however, particularly given the shared notion of human agency. Attitude is a huge issue in accepting the premises underpinning the ideas of human agency and purposeful systems, and their applications in heutagogy and the search conference. Emancipation is not for everyone, and the more conservative minded are going to struggle with both concepts no matter how much evidence for their veracity is demonstrated. The facilitator in

heutagogy and the search conference has to be willing to relinquish control, and this is not easy for some. I was recently reminded of this. Some colleagues and I have been delivering leadership programs around the concept of safety for the oil and gas industry. We have a two-day program that we have used for a few years, and it has been successful in Australia and a number of other countries. The program is strongly based on heutagogical and search conference principles.

When it came to planning these programs with the current client there was a lot of "push back". It was impossible for the client to see where we covered 'this topic' or 'that topic'. How would the participants learn about essential safety principles and tools? Even when I wrote a list of all the things that we would discuss so we could "sign off", the client was not convinced, since it was not in the original course outline. So, as a compromise, the client had their speakers deliver a number of slide presentations so that the audience could be told the essentials. Interspersed between these presentations were our workshop activities where – you guessed it – we talked about what they had talked about in the presentations but in a much more meaningful and contextual way. Even more interesting was the fact that not one of the presenters had any educational or learning expertise, and they mostly read off the slides, at least initially. After the first workshop, they realized that there were better ways to present. The presenters then took some of our advice, and the presentations became more interactive – although the data projector and the screen remained the focus (pun intended).

What was obvious was that our client was extremely conservative by nature, with great attention to detail and high need for control. Their leadership model was based on the need for people to be told what to do, and human agency was very much an anathema to them. Learning was not their forte either, so it was hard to take them somewhere new.

I'm sure that there are many people who conduct training or education programs who would find using what I am describing very difficult. The same way that some CEOs would rather write a strategic plan and have people comment on it, than conduct a search conference and involve all key players. For them, a "top down" model is better than a "bottom-up" model, despite evidence to the contrary in General Systems Theory.

The learning leader (see the Chapter 8 in this book) needs to be fairly open to new experience, flexible, adaptable, not too anxious (but with a healthy bit of anticipatory anxiety), and low on the need for control. The leader needs to have a good grasp of her subject area, as well as excellent facilitation skills. A good internet connection that lets participants use their various devices is also very handy.

So, the marrying of self-determined learning and the search conference is not for the faint hearted. But it can be a whole lot of fun and very exciting for the courageous who rise to the challenge. It does provide a well-established structure for the facilitator, and learners find it very engaging.

The Doing of It

What follows is a case study to illustrate my use of self-determined learning and the search conference.

I'd been invited to conduct a workshop for a public sector organization. The topic was change management. The timeframe was two days and the group comprised about 15 people. I tried to dig a bit deeper into what was happening in the organization but was given very little information other than that the participants were having problems adapting to change.

Now, there's a lot one can do around change management. Talking for two days on the topic would be easy, as would designing some interesting activities to get creative juices flowing. Fortunately, I had been using my search conference/ heutagogy approach for a number of years, and I was not going to use an easy or potentially problematic approach. This is not to say that I didn't go armed with lots of possible activities, videos, diagrams, and other training paraphernalia. I also took along my invariably confronting ice-breaker activity. The psychologist in me cannot resist using an ice-breaker that takes people out of their comfort zone and sparks their creativity. For me, it's a critical part of the process and helps develop expectations about personal agency, create a working climate, and develop rapport and trust. One of the major challenges with the search conference/ heutagogy approach is that you have to have a real grasp of your subject and have plenty of resources available.

After the ice-breaker, I form participants into teams using a nominal group technique to try to obtain as much heterogeneity as possible. The work teams I set up are generally between five and eight people and are seated around a table. I ask for the room to be set up cabaret style beforehand. On each table are sheets of flip chart paper, lots of colored pens, and sticky notes. Again, this establishes a working climate and an expectation that people are there to work, rather than be passive. I also like to have an electronic whiteboard, so that we can print off output and distribute it during the workshop.

In their teams, the workshop participants were asked to answer the following questions: what are your concerns, issues, and interests around change management; and when you leave here today what are two or three things you'd like to be able to do differently? Three-quarters of an hour was enough time for groups to undertake this activity. Participants were asked to nominate a "scribe", who wrote down the group's deliberations in large and readable writing on the flip charts paper. Creativity was encouraged. I also asked someone to be a time-keeper and another to facilitate the group discussion.

The flip chart notes were put up on the wall, and a different person from each group talked us through their group's findings. Clarification was sought where necessary. In this case, a lot of background information was provided, of which I was completely unaware. In short, this was not a happy group of people at all.

I called a break after we had completed a lengthy discussion. While the participants were having coffee, I sorted the information that had been presented into a

coherent list of topics. This formed the initial "curriculum" for the next two days. I went through the list with the whole group, and enhancements were made as agreed to by everyone. Participants then allocated themselves to a particular issue or issues. We ended up with two or three people working on each topic area. Sometimes in this process a person might be working alone if the topic is something they are passionate about but no one else shares. But, as much as possible it is best to have participants working in teams.

What was interesting about our curriculum was that it had little to do with personal change management. It became clear that the main concerns of the group were:

- managing other peoples' perceptions;
- negotiation;
- managing conflict and difficult people;
- developing credibility as a group;
- performing well as a team; managing stress; and
- managing a system that was largely dysfunctional.

If I had gone into the workshop with all guns blazing and joyfully talked about change management strategies with an off-the-shelf program, I would have lost this group immediately. However, our discussions revealed that the organization in which these people worked had imposed a new quality system. This involved the creation of a new group that examined written reports completed by their colleagues. Reports, as well as content and the process used, were examined and compared against precise standards in a very large manual. This process of quality review had been poorly implemented by the organisational leadership around a year earlier.

At this point I introduced an activity about working as a team and followed this with a short video. It seemed relevant given the curriculum we had developed. This was more a group of individuals working in isolation than a team, and there was a need for much greater mutual support, sharing of information, consistency of approach, and also internal mentoring. Depending on the curriculum for each workshop, I introduce experiential activities in my workshops for the whole group to do but relevance is the key. As a result, my activities and role-plays can be quite spontaneous.

The self-selected work teams were then tasked with addressing their assigned topic. They did this by using the Internet and/or me, relevant documentation, and others as resources. My role was to also act as a filter, and to make sure that the content the groups were accessing had validity. The teams were asked to write down their key learning on flip chart paper for presentation to the rest of the participants. One team decided to demonstrate negotiation skills and developed a scenario relevant to their work and then acted out the scene.

Feedback sessions can take many forms, and these sessions to the rest of the group are critical. It is here that I get a good deal of input, which involves asking questions for clarification, getting down to specifics when the feedback is too general, and further questioning their findings. A lot of the essential learning takes place during the feedback sessions, and spontaneously introducing role-plays, stories, and perhaps an activity often occurs. In this particular case, we engaged in many discussions around dealing with people, problems participants had experienced, and how to work more as a team.

As usual, I found that once we started exploring, participant questions increased rather than diminished, and the questions became more sophisticated as learning progressed. Constantly exploring how the learning is changing perceptions, skills and knowledge is a central role of the facilitator throughout the workshop.

In fact, one of the key outcomes of this workshop was the development of a strategic plan for the group to help them more effectively direct their work. To assist in this, we undertook an environmental scan. We also had to find some reports to evaluate and other documentation to make sure we were all on the same page and operating as an open rather than closed system. At one stage we asked a senior manager to join the workshop and answer questions of the group.

The workshop went for two days, and we worked through our curriculum in this way. I was exhausted at the end. Facilitation is hard work and you have to be prepared to move quickly to where the group needs to go. When we checked off our curriculum at the end of the workshop we found that most issues had been covered, and the participants went away with a clear set of behaviours that they were going to implement. The manager of the group committed to follow-up on the workshop and the plan of action. Senior management seemed satisfied as they invited me back to do a follow-up session involving the action plan and changes implemented.

I've undertaken all sorts of learning experiences using this method including formal face-to-face accredited programs in universities as well as competency-based training. One of the criticisms of the approach is that it is haphazard and is too chaotic when it comes to the need for specific outcomes such as competencies. On the contrary, it is precisely this sort of process that is valuable in those circumstances. People can still learn at their own pace, can learn from each other, and can be in charge of their own learning, even if there is assessment at the end. The facilitator needs to provide clear guidelines about the assessment and how it is to be achieved. When it comes to competency, people "test out" when they are ready.

If you want a group of people to learn how to use a new piece of equipment, for example, simply place the relevant manual where they can see it and step back. Some will read the manual, some will experiment; they'll learn from each other and can demonstrate their competency when ready. The facilitator can make sure no-one hurts themselves or the machinery and can act as a resource, asking the right questions when necessary. For me, machinery is just a metaphor for anything we

have to learn. An object for discovery does not have to have nuts and bolts. It can be as abstract as you like.

I was asked recently how to use this process for the mundane. The case in point was a man who had to take groups of people through new policy documents. His sessions lasted an hour and consisted of endless slides that apparently had lots of words on them. As he put it, "I'm bored, the audience is bored, and no-one wants to be there." I suggested he split the attendees into groups of 3 to 8, depending how many there were, and give each a copy of the policy document. Their task would be to go through the document and come up with ways in which individual policies would affect their work, as well as problems and issues that they encountered. In doing this, the goal of having people engage with the policy would be achieved. At a minimum they would have read it.

Lessons Learned

The approach I've described here is as much a learning experience for the facilitator as it is for the learners. You quickly learn that you are all in this together. It is impossible to be a fountain of all knowledge, and I frequently find myself researching as avidly as the participants. It is humbling to be in the facilitator role and not have to pretend to be an expert. Also, it is essential to be well-prepared with activities, videos, and other resources. In fact, this is where all the preparation occurs. Internet access is critical, unless you arrive armed with all the paper-based resources you might need.

Only this year I learned a valuable lesson running a series of education workshops for professional groups. People who see themselves as "experts" in a particular area (such as education in this case) can be reluctant to extend their learning. Rather, they will simply rely on their experience. This may be okay up to a point but does make you wonder why they attended the workshop. So, I find it important to make sure that the issues participants are working on really do extend them and I frequently remind them of the need to research further rather than rely on their own current practice.

There are some people who will have difficulty with this unstructured approach. I always arrive with some sort of a program and am clear about the process, which acts to make the more structured-minded feel secure. Most people have settled into this mode of learning because this is how they have learned in everyday life, and I am quick to point this out. So, I do find that I have to spend more time helping them take control of their own learning rather than looking to me for the answers.

Timing can be an issue: too little of it. Feedback sessions can be lengthy and can raise even more questions than from the start. As a result, wrapping up the workshop or session with a review of learning must not be missed. It is an important part of the process and allows the opportunity to tie up loose ends, make conclusions and, where necessary, reiterate commitments for change.

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THE LEARNERS

3 EMBRACING OPPORTUNITIES FOR SELF-DIRECTED LEARNING IN FORMAL LEARNING ENVIRONMENTS

Bernard Bull

Summary

Self-determined learning takes places in both student and teacher-directed learning environments. While the concept of a personal learning network is most often described as a professional development tool for teachers, this same concept provides insight into how students self-direct learning in teacher-centered environments. This is further explained by tracing the development of learning theories to the contemporary concept of connectivism, a theory of learning that focuses upon the connections that learners make and that assist with achieving formal and informal learning goals. Two fictionalized case studies, drawn from a 3-month informal study of self-directed students in teacher-centered learning environments, provide a rich description of this phenomenon, highlighting several important aspects of self-directed learning in teacher-centered environments.

Introduction

While the literature about self-directed and self-determined learning continues to expand, many individuals find themselves spending large parts of their lives in formal learning organizations. Many of these organizations do not explicitly or implicitly value learner-centered perspectives. For those who remain in these organizations, self-determined learning continues to be viable for informal learning outside of school, but what opportunities exist in schools that are not structured to support a learner-centered experience? The primary purpose of this chapter is to describe the possibilities for self-determined learning in otherwise traditional teacher-centered contexts.

In their early years, young people make few distinctions between learning, play, work, experimentation, exploration, and discovery. However, as these young people enter formal schooling, this often changes. Many students start to define learning as work. As time passes, they further learn that the work is determined and defined by teachers, policy makers, and organizations that establish and promote learning standards. As such, education is something that is done to a learner rather than something that a learner defines, directs, or does in partnership with others. Over time, this formal culture of schooling risks minimizing an individual's confidence and competence in self-determined learning. However, this is neither certain nor necessary. Even within formal learning organizations, there are still opportunities for learners to cultivate personal learning networks (PLNs), thus embracing, leveraging, and re-discovering the power and possibility of heutagogy in an increasingly connected world.

Self-Determined Learning and Student Personal Learning Networks

Self-determined learning is alive and well in unexpected places. Even in highly teacher-centered contexts and the most dysfunctional of school environments, there are learners engaging in self-discovery, self-direction, and self-determined learning. While many learners in such contexts do not discover the power, promise, and possibilities of self-determined living and learning, it continues to happen. Students are learning to leverage emerging technologies to connect, collaborate, create, and discover in wonderfully surprising ways. In some instances, the efforts of such learners remain invisible to teachers and administrators in traditional teacher-centered schools. In other circumstances, these self-determined learners are impacting traditional schools, inviting teachers and school leaders to also consider the possibilities of self-determined learning in an increasingly connected world.

Without networks, we do not learn. For some, schools play a valuable role for learning, but they are not essential to learning. While teachers are important to many learners, they are not essential to learning. Neither are degrees, completion of an adequate number of courses and credits, one or more diplomas, high scores on standardized tests, or solid performance as measured against state and national standards. These scores and standards dominate much contemporary conversation about education. Schools can be a valuable place of learning, but lifelong learning depends upon a learner's ability to develop and use a personal learning network.

There are two essential elements to a learning experience, a learner and an experience. Looking at modern schools and learning organizations, this fact is sometimes hidden. Schools talk about the role of teachers, resources, integrating technology, and countless educational trends and innovations. Along the way, the central role of learning organizations, student learning, sometimes gets lost. It can get so lost that students lose sight of this fact, and then see school as a series of hoops rather than as a network and launchpad of resources to equip them with the competence and confidence to grow as lifelong self-determined learners.

A personal learning network is a network of people and resources through which one learns and grows. Books like Richardson & Mancabelli's (2011) *Personal Learning Networks: Using the Power of Connections to Transform Education* and Nussbaum-Beach & Hall's (2012) *The Connected Educator: Learning and Leading in a Digital Age* give helpful introductions to this concept and what it means for educators. However, there is a smaller and even more significant conversation about personal learning networks that is also taking place. This consists of people who are looking at the idea of a personal learning network, combining it with the promise and possibility of self-determined learning and considering how we might empower and encourage students to cultivate their own personal learning networks.

What if learning communities and organizations made students' personal learning networks an integral part of formal and informal education? As students progress through their schooling years, what if they cultivated a deeper and more

substantive global personal learning network? Informed by the idea of George Siemens's connectivism (2004), a student personal learning network is one that helps learners not only become competent within a given topic area, but also allows them to grow in their understanding of how to cultivate and make use of knowledge networks. It is one thing to study world geography out of a textbook, but an entirely different experience to connect with people around the world, learning from each, comparing and contrasting geography in different parts of the world, and building meaningful and sometimes persistent connections with those people.

Learning Theory Background

Looking at some of the trends in education over the past century, one can see them as extensions of four learning theories: behaviorism, cognitivism, constructivism and most recently, connectivism. *Behaviorism* is where we get concepts like measurable learning objectives in education. This is the body of work that focused upon observable behavior, rewards, punishments, classical conditioning and operant conditioning. Behaviorism is often associated with names like Watson (1967), Skinner (1974), and Thorndike & Hagen (1969).

The influence of behaviorism in education can be traced to the early part of the 20th century, but it continues to inform thought and practice today. We see it informing the work of many scholars and educators over the last century, and it can also be seen as a significant influence in the push toward the use of observable and measurable learning objectives. Teachers in the 1960s and 1970s started to be introduced to this idea through books like Robert Mager's (1962) *Preparing Instructional Objectives*, but the 1980s use of such objectives became common practice in schools around the United States and other parts of the world. From a behaviorist perspective, if you are not able to see it, measure it, and document it, then it loses significance.

Behaviorism remains evident in current education practice, especially with the increased integration of technology and the use of mobile devices in the classroom. Consider contemporary conversations about how to provide incentives for desirable student behaviors and performance, how to reinforce lessons, and how to increase student mastery of knowledge and skills. These are especially evident in many educational apps designed to teach everything from typing skills to maths, spelling, geography, and foreign languages.

Alongside the influence of behaviorism we saw the development of *cognitivism*. One of the more well-known educational influences of this movement relates to the idea of developmental psychology, when we discovered that the brain develops in certain stages and we can start to plan learning experiences based upon where people are in these developmental stages (Neiser, 1967). Where behaviorism focused upon external observable behavior, cognitivism invited attention to the inner workings of brain.

Constructivism emerged amid these two perspectives on learning, adding yet another strand to the conversation. As the name might suggest, constructivism focused upon the idea that knowledge is not simply something that one person transfers to another, but knowledge is constructed within an individual through experience. For many educators, John Dewey (1990; Hickman, Neubert, & Reich, 2009) is probably the first name that comes to mind when thinking about such ideas. One may also think of people like Vygotsky (Daniels, 2001; Pass, 2004), Kolb (1984), and Montessori & George (1964).

While this chapter represents these three learning theories as if they came in a clear and clean chronology, the reality is that they often crossed paths with another. We see ample evidence of this intermingling, especially when we look at educational models and practices over the last century. Today it is common to find educators who describe their educational philosophy and practice in a way that seems to relate to all three of these in one way or another.

More recently, into the 21st century, we find yet another perspective added to the conversation. George Siemens (2004) and Stephen Downes introduced *connectivism*, which seems to suggest that knowledge is not simply something that exists in our brains. Instead, knowledge exists in our connections with other people, resources and communities. This resonates with the experience of many in today's digital and information age, as we often find that our connections enable us to work and flourish. Medical professionals rely upon complex data systems and other professions for certain tasks. Even historians, sometimes thought of as solitary scholars, now share rich data sets on the web and collaborate with one another to carry out research goals and tasks (See the Trans-Atlantic Slave Trade Database (2008) as an example).

Self-directed Learning

Looking at learning organizations today, we see two major approaches to teaching and learning (Figure 3.1). Consider the well-known fishing analogy for this example. Some schools are set up as fish distribution centers. They are like fish markets where a person is given a fish and can then prepare it and eat it. Other learning organizations function more like places of fishing lessons. They don't just give out the fish. They teach the people how to fish for themselves. The first is the school that seems content with distribution as the goal, leaving the learners dependent upon a teacher to grow and learn. The second focuses upon equipping learners with the ability to learn for themselves, allowing them to develop the skills necessary to thrive as a learner for life. From this perspective, the goal of a learning organization is to help students progress toward self-direction.

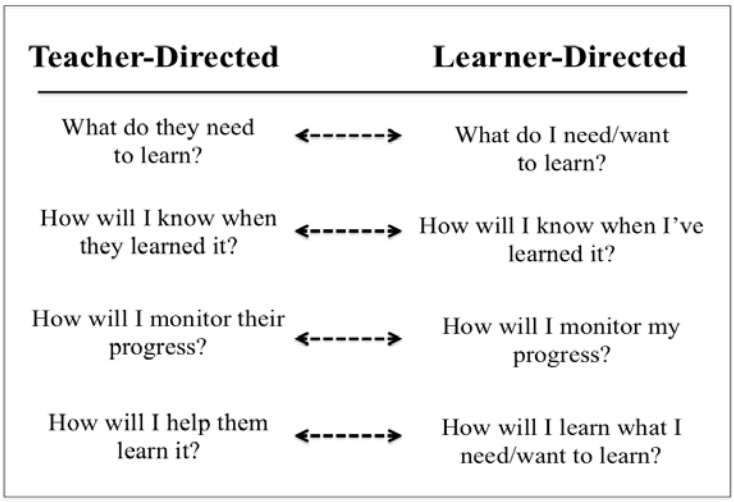

Figure 3.1. Teacher-directed versus learner-directed learning

In reality, few learning organization are one or the other of these two. They are most often at some point in a spectrum between the two. Some focus upon content distribution with some opportunity for self-determined learning, while others are heavy on self-determined learning with occasional content distribution. An easy way to think about this is to consider the teacher versus learner-centeredness of a school based upon four questions (as seen above). On the one side, we have a more teacher-directed approach. On the right side, we have a more learner-directed and self-determined approach. Usually we find schools and classrooms that vary on the spectrum for the four questions. Whatever the case, the goal is for all learners to eventually be empowered and able to function on the far right side of this chart.

Self-blended Learning

There is another piece to this puzzle that helps us understand the possibilities of student personal learning networks. This last piece relates to the concept of self-blended learning. Blended learning is the mixing of face-to-face and online learning. Some people talk about self-blended learning as a situation where a learner takes online courses and some face-to-face courses (Staker & Horn, 2012), but this is too limiting a definition. Instead, self-blended learning can be used to mean any situation where a learner self-blends a learning experience, combining connections in the online and face-to-face worlds to learn and grow. From this perspective, self-blended learning is self-determined learning that leverages online and face-to-face learning experiences.

Pulling it All Together

This brings the subject back to idea of a student personal learning network, which is a mix of connectivism, self-determined learning and blended learning. As defined at Wikipedia (2014), "A personal learning network is an informal learning network that consists of people a learner interacts with and derives

knowledge from..." (para. 1). Ask people to describe their personal learning network, and they sometimes start by describing the technologies that they use, tools like TwitterTM, blogs, YouTubeTM, and Google HangoutsTM. That is understandable because these are the tools that allow them to connect with their network. However, the network is largely the people, communities and resources, not the technologies themselves. Consider a picture of a large public swimming pool full of people. If asked what one saw, one would likely not describe the technology of a swimming pool. One would instead talk about the people, what they were doing and how they are behaving. Similarly, a personal learning network is first about relationships and connections with people and resources. People use the tools to strengthen, lengthen, and create such connections.

A Student Personal Learning Network

A student personal learning network is, therefore, a rich and ever-growing series of connections with people, resources, and communities around the world, connections that allow learners to grow in knowledge, skill, ability and perspective. What if we spent more time thinking about the networks that students are building as they go through their schooling years? What are the tools and technologies that they use and how are they using them? One of many connections in this network will likely be a connection with the teachers. It will also include classmates, family members, community members, people in communities of inquiry and others with whom they learn and interact in the physical world. As it expands, the network will also include people far beyond the walls of the home, school, and community.

What if schools made building such a network a central part of the curriculum? What if they invited students to keep a log or journal of their growing network? What if students were invited to reflect on how this network is empowering them to learn, and how it is expanding their knowledge and perspective? What if schools were a place for students to build a meaningful network? This would genuinely turn schools into places of fishing lessons. Students could interview people around the world, tutor and be tutored, take part in formal and informal learning communities, take part in Twitter chats and Hangouts, learn from, and engage in, the blogosphere, experience the power of working on a meaningful project in a distributed/virtual team, participate in a massive open online course (or design and teach one), share resources through social bookmarking and other technologies, host and take part in webinars, and build new online and blended learning communities around topics of personal value, need, and interest.

Self-determined Learners in Teacher-Directed Contexts

This concept of student personal learning networks provides insight into how learners are embracing the power and possibility of self-determined learning. Students are able to do so even in an otherwise traditional schooling context. The following two scenarios illustrate this reality. While they are fictionalised, they are based upon informal interviews and observations of learners in dozens of

traditional schooling contexts throughout the Midwest United States over a three-month period.

The Aspiring Author

Elizabeth is a secondary student who aspires to be a writer. She looked forward to starting her secondary studies with knowledgeable and mentoring English teachers who could guide her toward such goals and aspirations. Within two months of her first English course, she was disappointed to find that the English teacher was overwhelmed by discipline problems in the classroom, large class sizes, and disinterested students. When Elizabeth received her first essay back from the teacher, it had "C+" at the top of the page with a single sentence of feedback. "Be sure to follow the instructions more carefully next time." Elizabeth sought a conference with the teacher after class that day, and the teacher candidly noted that he would love to assist Elizabeth with her goals, but he was doing all he could to "keep his head above water right now."

Disappointed but determined, Elizabeth realized that if she wanted to achieve her goals of becoming a writer, it would not happen under the tutelage of her English teacher. How could she learn to become a writer? She started to create a list in her journal:

- Write something each day.
- Have other people read what I write and give me honest feedback.
- Read the types of books and articles that I want to write.
- Read articles and books about how to write well.
- Get tips and feedback from other writers and editors.
- Find mentors.
- Join one or more writing groups (if something like that exists).
- Write and publish a book.

Elizabeth got online and started with the first item on her list: Write something each day. She had a couple of friends in primary school who had started blogs, and she decided this would be a great way to get started. Elizabeth typed, "how to start a blog for aspiring writers" in her favorite search engine. That didn't give her the results that she expected. She was looking for tips on starting a blog. Instead, she found a long list of blogs by aspiring writers, so she skimmed several of them, finding a few fellow teenagers who wanted to become writers. She reached out to them with an email and asked if they would be interested in starting a writing group online. They could meet at a set time each week in a Google Hangout, take turns sharing their writing, and give each other feedback. She was delighted to discover that several people were interested, and this became the beginning of a growing group of aspiring teenage writers from around the world.

Elizabeth started a blog online, made her first post to the blog, and organized a small international group to have an online writing group. Over time, the group expanded, and they started inviting successful authors to join their weekly sessions. To their surprise, most of the authors were delighted to attend, share a bit of their writing and a few writing tips, and then to give a bit of feedback on the writing of others in the group.

Elizabeth still went to English class each day. She still submitted essays and completed assignments. She also continued to get letter grades posted at the top of her paper with a single sentence of feedback, or sometimes check marks on a short rubric that focused mainly on grammar and syntax. However, several things changed drastically. Elizabeth never turned in an essay in her class without first getting feedback from her online writing club and the small but growing number of visitors to her blog. Any essay that she turned into class had probably been reviewed by three to five people, and the English teacher noticed the change. One day after class, the teacher commended Elizabeth on the "A" that she received for the most recent paper. The teacher was impressed with Elizabeth's progress. Elizabeth thanked the teacher, explaining that she appreciated the "A", but really wanted to work on a more effective introduction and conclusion. While the current essay seemed alright, she did not know if it would connect with her intended audience.

The teacher looked puzzled, but impressed. While busy and overwhelmed, he had to know more, and asked how she was learning all this. Elizabeth shared the list in her journal, also explaining about her blog, online writing group, and the guest authors that she was meeting each week. Even more intrigued, he asked if Elizabeth would be willing to share about her *learning journey* with the rest of the class. She was nervous about speaking in front of the group but agreed.

The end result was improved learning not only for Elizabeth, but for the rest of her class. Elizabeth shared her story with the class, and the English teacher decided to incorporate some of her activities as assignments. He started having students blog, conduct public readings of their work, make comments on each other's essays, and they even invited guest authors to join the class via SkypeTM. The class was still very traditional, and the teacher remained somewhat overwhelmed by some discipline challenges, uninterested students and large class sizes, but there was substantive change in the class that started with the self-determined efforts of a single student.

The Struggling Statistics Student

Mark liked the idea of mathematics, but his most recent introduction to a secondary statistics class was leading to increased anxiety, fears of failing the class, and losing the chance of gaining acceptance into a college of his choice. While he had the option of dropping the class, he also realized that he needed to eventually learn statistics if he wanted to achieve his goal of becoming a microbiologist. His teacher explained things reasonably well and offered to work

with students after school, but Mark had family responsibilities that made these after-school sessions difficult to attend.

While earning a passing grade was a practical goal, he truly wanted to understand statistics. He searched the Internet and discovered that there was a massive open online course (MOOC) running that focused upon statistics for biologists. With nothing to lose, Mark signed up for the course and started to use this online course as a supplement to his work in the traditional statistics class at his high school. Within the class, he completed exercises that gave instantaneous computer-generated feedback on his work. He reviewed recorded lectures and could review and replay them as often as needed, and he engaged in some peer assessments with other participants in the MOOC. Leveraging this open online course gave Mark the additional feedback mechanisms that he needed to better understand the concepts in his class.

When Mark got overwhelmed with the time and work required in the course, he turned to some of his favorite blogs by micro-biologists and even a couple of emerging online social networks for micro-biologists. While Mark mostly lurked in these online spaces, he used them for motivation and inspiration, and occasionally reached out to them for advice or encouragement.

One of the more exiting parts of Mark's online connections came from following the work of current micro-biologists, especially those who blogged and shared their work through social networks. When they referenced statistics as part of their work, Mark used this to better understand how his current study of statistics would help in his future work. He found himself struggling to understand advanced statistics concepts in the blogs that far exceeded what he was learning in his high school course. While he did not always come to a deep understanding of the concepts right away, he found himself motivated, and he persisted through any ambiguity, sometimes experiencing learning epiphanies.

Mark did not complete the high school course with perfect marks, but he did pass the course with what prospective Universities would consider a respectable mark. Along the way, he learned to enjoy a topic that was previously seen as a frustration and barrier to achieving his goals. He never completed the online open course, but garnered the feedback and guidance that he considered useful for his goals, and he continues to use his newly gained knowledge as he follows microbiology blogs and social networks.

Lessons Learned

Self-determined learning through student personal learning networks is less of a goal to be achieved than it is a present reality. The scenarios shared in this chapter are not representations of future possibilities. They represent what many connected and self-aware students are already doing to augment, bolster, and personalize their learning experiences, often in ways that align more closely with a student's personal goals, values, an contextual restraints. As the Internet provides increased types of connections that learners are able build, these networks are

impacting on how student live and learn, even in some of the most traditional teacher-centered contexts.

Michael Horn of the Clayton Christian Institute describes blended learning as not simply the combination of online and blended learning, but also learning that empowers students with some measure of control of "time, place, pace and path" over the learning (Staker & Horn, 2012, p. 3). Applied to the context of self-determined learning in teacher-directed contexts, students are building personal learning networks that give them added control over these four factors, even if the teacher-centered context does not formally allow for that.

Traditional classrooms continue to struggle with how to personalize time and pace for learners. Courses usually have a start and end time, as do specific class sessions. Homework assignments and assessments are quite often pre-determined and consistent for all learners in a given class. Some of the inflexibility of teacher-directed contexts still remain for the self-directed learner, but augmented learning experiences are providing more student control. In the second scenario, Mark found the length of time in class as well as the scheduled after-school study sessions not flexible enough to be helpful in achieving his goals. As a result, he regained some control over time by joining a second open online course, finding resources that he could pause, fast forward, and rewind. He could do all of this at a time of day that allowed him to balance his responsibilities at home. Similarly, Elizabeth from the first scenario created ways to extend the time and pace of her writing projects.

While she maintained a commitment to meeting the deadlines for a paper in her teacher-directed class, the grading of a paper ceased to be the culmination of her work. She continued to work on a paper, driven by personal goals and the feedback from her expanded network of aspiring writers around the world, readers of her blog and current authors with whom she connected through her online writing group. These scenarios illustrate promising ways in which learners can discover how to manage time and pace in a way that is personally beneficial.

With student personal learning networks, students also gain some control over the place of learning, especially as learners are empowered by digital connections. Learning at home, work, school, in transit between locations, or elsewhere becomes a part of the learning experience design that an empowered student is capable of determining. Learners are able to leverage place to meet personal needs, interests, or goals.

The control of the learning path is even more evident in the two case studies. While teacher-centered schools and contexts often dictate a singular path for all learning destinations, these cases show how both learners created rich and diverse pathways for achieving the goals established in the teacher-directed context as well as in the personal goals and aspirations of each learner.

A further lesson comes from the possibly of these grassroots personal learning networks impacting the traditional schooling approach. As more students embrace the power and possibility of self-directed learning through PLNs, this also has

promise to influence or re-shape the practices and strategies in teacher-centered contexts. Some teachers learn from, and incorporate practices from, these self-directed learners, as illustrated in the first case study. As this acceptance grows, so does the potential flexibility of these learning environments, perhaps to the point where self-determined learning becomes an increasingly accepted, even encouraged, part of the overall schooling paradigm. While some awakened self-determined learners may opt to leave overly constraining learning contexts, there is the added possibility that these learners will contribute to a greater awakening of other learners, teachers, and school leaders.

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4 MOVING STUDENTS FORWARD IN THE PAH CONTINUUM

Maximizing the Power of the Social Web

Lisa Marie Blaschke

Summary

Why are students sometimes reluctant to embrace self-determined learning? Could it be the result of years of passive, industrialized, rote-style learning that the education system has instilled within them? Stewart Hase argues that children are heutagogical learners from the start – self-determined, creative, and reflective – at least until they have spent a few years in our school systems. Fred Garnett finds that many of today's learners are simply not ready for heutagogy and first need to progress through a pedagogy-andragogy-heutagogy (PAH) continuum before they can become self-determined in their learning. This would mean that if we are to help students become heutagogical learners, we must apply heutagogical practices with younger students early on, while at the same time working toward emancipating those who have become industrialized learners and continue to "learn-to-the-test". This chapter discusses practical approaches that teachers can use for moving students forward in the PAH continuum. The chapter also provides examples of how these approaches can be applied in the classroom using the social web, as well as a number of web resources for additional information.

Introduction

Today's learners are in an industrialized state of mind. Educated within a system singularly focused on rote learning and teaching to the text, many of these learners have lost the ability to be creative, self-determined, and reflective in their learning. Instead, they prefer to be spoon-fed the content that they need to consume and be tested on in order to get to the next certificate or degree. At the same time, the complexities of the workforce in the 21st century require that employees are self-motivated and adaptable, as well as possess a wide range of cognitive and meta-cognitive skills, such as critical thinking, creativity, self-directedness, innovativeness, and knowledge of how they learn (Prensky, 2010; Partnership for 21st Century Skills (P21), no date; Thomas & Brown, 2011; Trilling & Fadel, 2009). Today's workers need to be lifelong learners and by definition must be self-determined in their approach to problem-solving and education. By not helping them become self-determined learners, we do our students a disservice and set them up for failure upon entering the job market.

Within the heutagogy community, there are two strands of thinking about learners. One strand, argued for by Stewart Hase, is that students are heutagogical learners from an early age, but that this ability becomes repressed over time as learners attempt to comply with the demands of a test-based school system focused on assessment. Another strand is that students move along a continuum of learning – from pedagogy to andragogy to heutagogy – coined the PAH continuum by Fred Garnett (Garnett, 2013, 2011).

In discussions with Stewart and Fred about these two strands of thought, I came to the conclusion that these are not opposing viewpoints or ideologies, but rather two strands that could at some point merge to become one. If we can begin the process of developing heutagogical learners in the early years of their education, there will no longer be a need to "move" them along the PAH continuum. Instead, they would become immersed in this form of education and would not require a re-education of their approach.

Those learners who are still locked into the current education system, however, would need to be gently coaxed away from their current ways of learning to becoming more self-determined learners. This chapter provides a few practical examples of how we can move learners along the PAH continuum to help them become more self-determined in their learning approach.

Practical Approaches for Helping Students Move Through the PAH Continuum

When entering into an education setting, most students want to know: what do I have to pass (or get an "A")? Often, they don't come into the classroom with a desire to learn. Even at the graduate level that I teach, many of my students want me to tell them exactly what they need to do. They are stuck at the start of the PAH continuum, and as teachers, we need to get them to shift their frames of reference, to move for passive to active learning, from consumption to inquiry – and within a context that will motivate them to want to learn more. We need to give them opportunities to explore, while also providing them with a toolbox that will support them on their journey of exploration. Where do we start in helping our students become more self-determined learners? Here are few practical tips on how to do this, including examples of online tools that can help you help your students become more self-determined.

Let learners choose what they will learn and how they will learn it

Flexibility is key in defining learning activities, and it is important to give students the freedom to choose a learning topic and decide the context in which they will learn. For example, rather than assigning them a specific book to read, have them pick a topic that interests them and then let them choose the book. Another way to motivate learners is to give them real-world problems to solve, problems that are relevant to them and that can be applied to their personal and/or professional context. Longo (2010) recommends using inquiry learning, as this approach "can spark students' curiosity by inspiring increased levels of motivation and authenticity through real-world lessons and assessments" (p. 54).

In one of my graduate courses, I ask students to develop a business case over the course of the semester on a topic of their choice, but related in some way to the business of distance education and their individual professional context. This usually throws many of them into a conundrum of angst – and completely outside

of their comfort zone. To complete the semester-long assignment, students are required to conduct and analyze market research, interview stakeholders affected by the business case, put together a business model and financial plan, and then present the case to their peers. By being given the opportunity to choose a topic that interests them, they are empowered with decision-making (learner-centeredness), become motivated to learn, and gradually begin to develop a thirst for exploration. With formative feedback provided along the way, students gradually build up a healthy level of confidence about their approach to learning. Guiding learners in this process and providing suggestions is critical. Most importantly, learners must have the freedom to decide what they will learn and the context within which they will learn.

Encourage learners to explore

When students are accustomed to being passive learners, they often forget how to explore. Our role as teachers is to provide learners with a safe, yet open, environment that encourages exploration, and that gives learners the freedom to move about. For example, in the same graduate course described above, I assign readings for the course, but also require that students search out a specific topic that interests them – related to the course content – and I then ask them share their research with the class. To support their exploration, I ask students to sign up for Twitter™, a social media tool, and follow a business trend that is of interest to them (Figure 4.1). This activity involves 1) finding and evaluating appropriate sources of information, 2) connecting with others on the internet, and 3) sharing new discoveries with other classmates. It gives students an opportunity to explore a topic that appeals to them and that may apply to a real-world work situation with which they are (or will be) dealing with, thus further motivating them to learn and explore on their own.

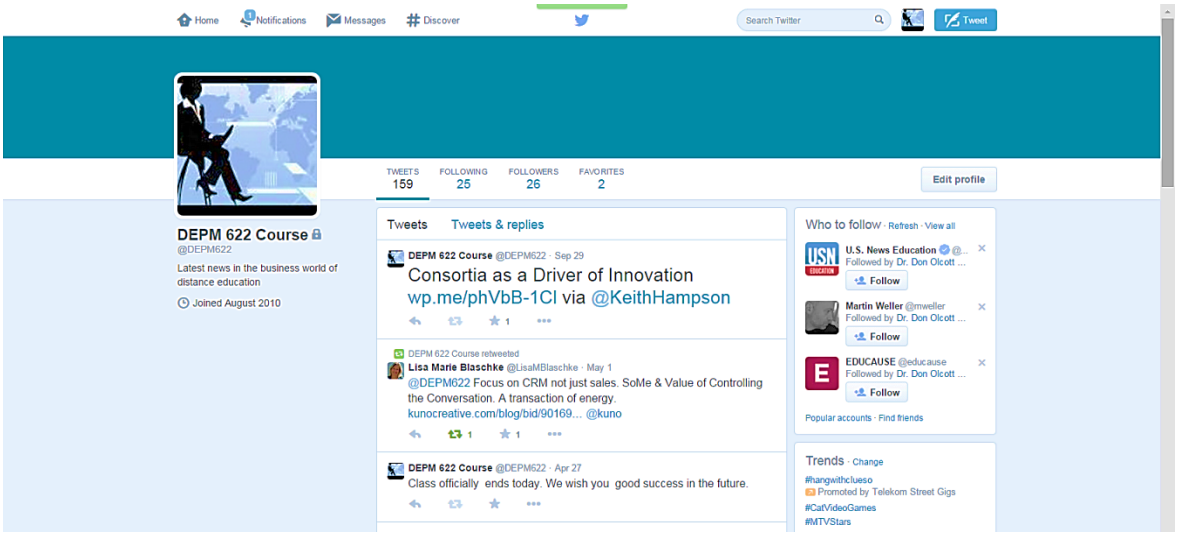

Figure 4.1. Using Twitter to explore and learn

Be a guide on the side

In heutagogy, the focus of learning shifts entirely from the teacher to the learner. This is a scary place for non-self-determined learners to be, and it takes them completely out of the comforting boundaries of a traditional classroom environment. It is also a bit frightening for teachers, who are left wondering: If we aren't on center stage, what role do we have in the classroom? Much like in a safari (and I have stolen this analogy from the first Heutagogy conference held in Prague in 2013), we are guides for our students. We know the territory that our learners are exploring and can provide them with the leadership and guidance they need as they explore. We show them where they need to go and provide them a compass and a map, and we are there when learners have questions or encounter problems.

Let go – and allow learners to learn from each other

One of the toughest things for a teacher to do is to relinquish control of the classroom and to let learners roam free on their learning path (Dillon, 2014). However, when we let go of that control, amazing things can happen. One day of the week, I volunteer a couple hours of my time to the local German grade school, teaching English to six and seven year-old children. We sing songs, read books, and have simple conversations. During one of my sessions with the 7-year olds, I had brought with me a box of new English books to read (they had actually been stuck in the teachers' lounge and I was on a rescue mission). On this particular day, I had a set teaching plan that I was working through – but my learners weren't interested. They kept sneaking up to me trying to get to those new books underneath my chair. After 30 minutes of unsuccessfully attempting to keep to my "plan", I relented and told the students that they could spend the last 10 minutes of class reading the books.

I couldn't believe what happened next. Each child grabbed a book and began reading (keep in mind that these were books they had never seen, and this was a foreign language for them). Some read to other children, while others read quietly aloud. As they read, other children would help them in their learning: translating English words into German, helping them pronounce words, and encouraging them to keep going (if giggling at the content of a book can be considered a form of motivation). A teacher observing the course and I were dumbfounded at how these children were able to read English books they had never seen, and the way in which they helped each other learn. There was a synergy and buzz of learning in that classroom that every classroom needs to have. As I said, amazing things can happen when we let go of our need to control learning.

When I am not teaching six- and seven-year olds how to do the "Hokey-Pokey", I teach an online graduate course on the foundations of distance education (DE), where students learn the history, principles, and theories of DE. Within this course, we place a strong emphasis on group work, that is, student-to-student collaboration and co-creation of content. Because our students are online, they do not meet in a physical classroom, so the opportunities for them to connect, share,

and discuss course topics is minimal outside of the online discussion groups. Working on an online project outside of class gives them an opportunity to further create dialogues with one another.

In an assignment that we give them, students are required to document the evolution of DE since its inception, taking into consideration the various factors that have influenced these "waves" of development, factors like economics, politics, theories, social trends, organizational structures, and technology. Using an online collaborative tool (usually GoogleDocs™), the students create an evolutionary grid that documents these factors as they move through the history of DE.

Once the groups get organized, they begin to document the events that have influenced DE's history. Initially, the groups go through a process of self-organization, and in most cases, simply divvy up responsibilities across factors, assigning different parts of the grid to each group member. Each member then adds information to their portion of the grid. As the groups evolve and students have more of a sense that they have control over the activity, more peer-to-peer collaboration begins emerging, with students sharing resources and information and reviewing each other's portions of the group grid. As they work through each column of their group grid, students review each other's work and add to it, either synchronously (when other group members are online) or asynchronously. As a result, students not only learn more about the history of DE, but have an opportunity to view and discuss that history through the perspectives of their fellow explorers.

Help learners understand the process of how they learn

Reflection – and the ability to think about and reflect on one's learning process – is another important aspect of heutagogy, and as teachers of youth who are bombarded by distractions, we need to find ways to help students acquire reflective learning skills. One tool that I have found helpful is the traditional learning journal but in a non-traditional environment. The foundations course that I teach is the first course within a graduate level program, and one of the first tasks that I ask students to undertake is choosing, designing, and developing an online space, which we call an e-portfolio (Figure 4.2). It is in this space that students store their best coursework and publications, and it is also where they keep their reflective learning journal

Throughout the semester, I "feed" students questions for reflection, which they respond to within their learning journals. These questions are not only related to course content and how this content has influenced student thinking, but are also structured to help learners think about their learning process: how they best learn both in a team and individually. I provide formative feedback to students along the way, and as the learning journal is online, it is accessible to me and the student at all times. The e-portfolio is also populated with the student's artifacts, which is the work that the student has completed during the semester and throughout the program.

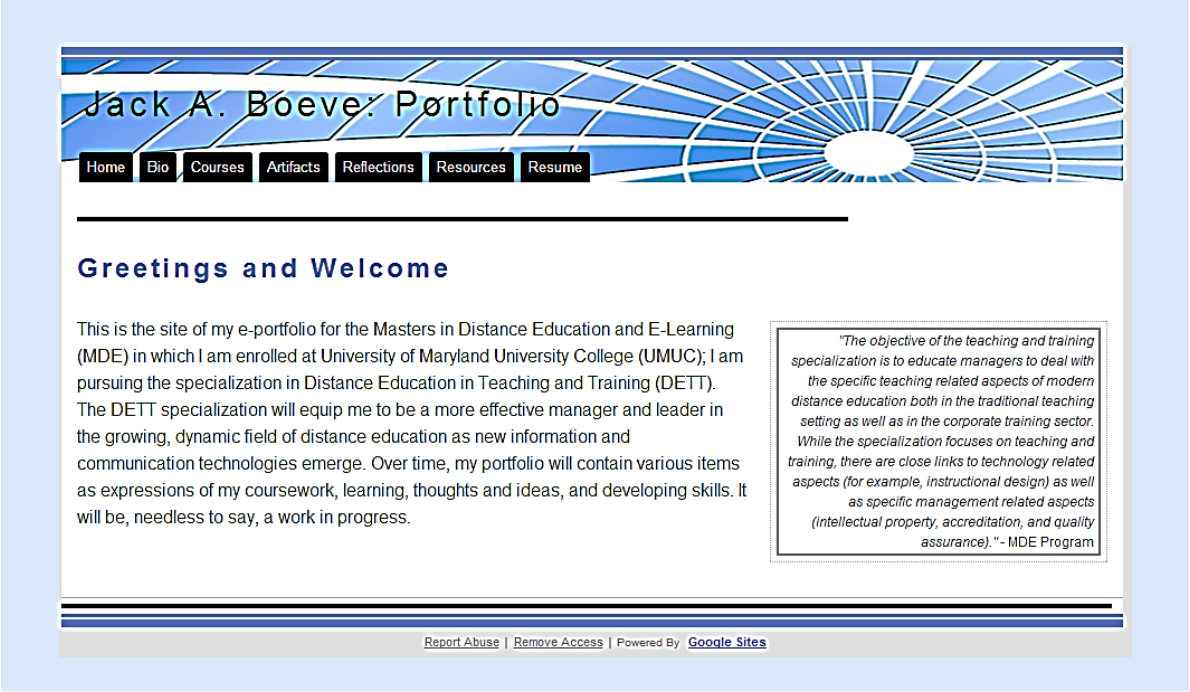

Figure 4.2. E-portfolios for demonstrating competency and reflect on a journey

Upon completion of the program, the student has a comprehensive online site that demonstrates a variety of competencies that the student has acquired during his/her learning journey. Many students also continue to use and update their e-portfolios after the program, using the online sites as a personal calling card of their experience.

Give learners the tools to create personal learning environments (PLEs) and to build networks.

In January 2014, Mind Shift made two predictions about learning for the year. The first prediction was that "self-directed learning using digital tools will take center stage" (Korbey, 2014, para. 2). The social web has a number of characteristics that support self-determined learning and align neatly with heutagogy. These include the web's non-linear design and the way in which it supports learners in searching for information, supporting inquiry-based learning, creating new information, and connecting and collaborating with others (McLoughlin & Lee, 2007; Conole, 2012; Blaschke & Brindley, in press, 2015).

In a learner-centered classroom, social media opens up new paths to learning, sharing, connecting, and collaboration. In using the social web, we move students away from linear communication to a more non-linear and clustered approach to communicating, where learners can connect, and conversations can grow and expand. Where possible, we need to maximize use of the social web through social media, apps, software, e-portfolios, and blogs, thus giving learners the tools they need to become lifelong learners.

One example of a social media tool that can be used to help learners connect is Twitter™, which allows learners to connect, interact, and share with others online. In my foundations course, I use Twitter™ by having students follow a DE scholar and to then share something from that scholar (e.g., a tweet, research, blog post, etc.). Using Twitter in this way supports students in their exploration of the field, lets them connect with other DE scholars, and allows them to share their findings with their classmates. I have had colleagues who have shared stories with me about the success of Twitter in their classrooms, e.g., helping students connect with other scholars and researchers – and even connecting with potential employers.

LinkedIn™ is another social networking community that can be used to help learners connect (Figure 4.3). Encouraging students to use social media platforms such as LinkedIn™ gives them an opportunity to connect with others and to discuss topics of interest and to share ideas and experiences related to the community. Brandt (2013) related similar experiences when practicing heutagogy as a student, finding that "virtual connections, made through the internet, can provide opportunities for real-time input from experts in the field of study" (p. 110).

Another approach to encourage connections and conversations is a community of practice using the technology of the internet (Wenger, White, & Smith, 2009). For example, within the heutagogy community, we have created a community of practice to share research and ideas about heutagogy and to create connections among those interested in the theory of self-determined learning (Figure 4.4).

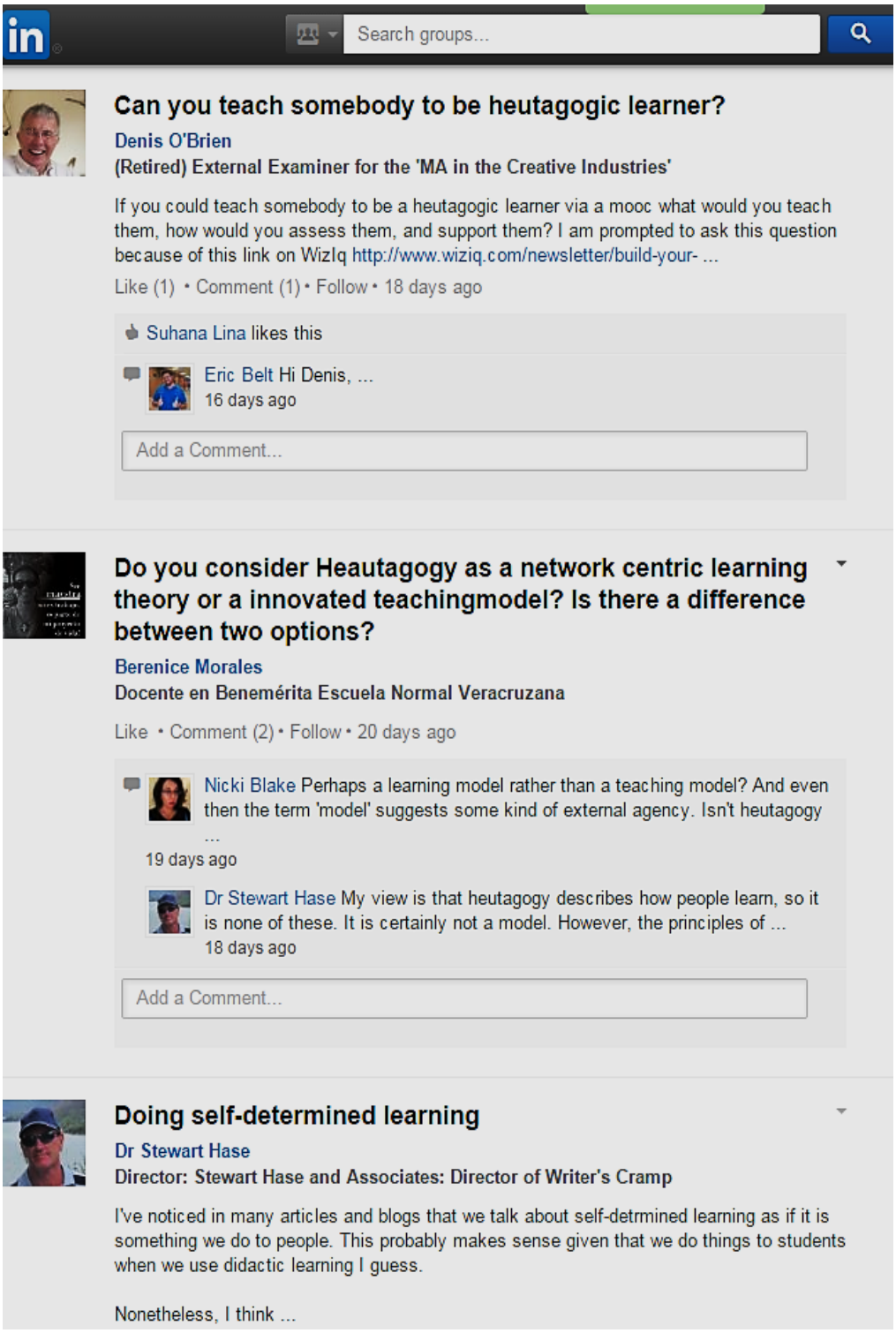

Figure 4.3. Using LinkedIn™ to connect and share ideas and experiences

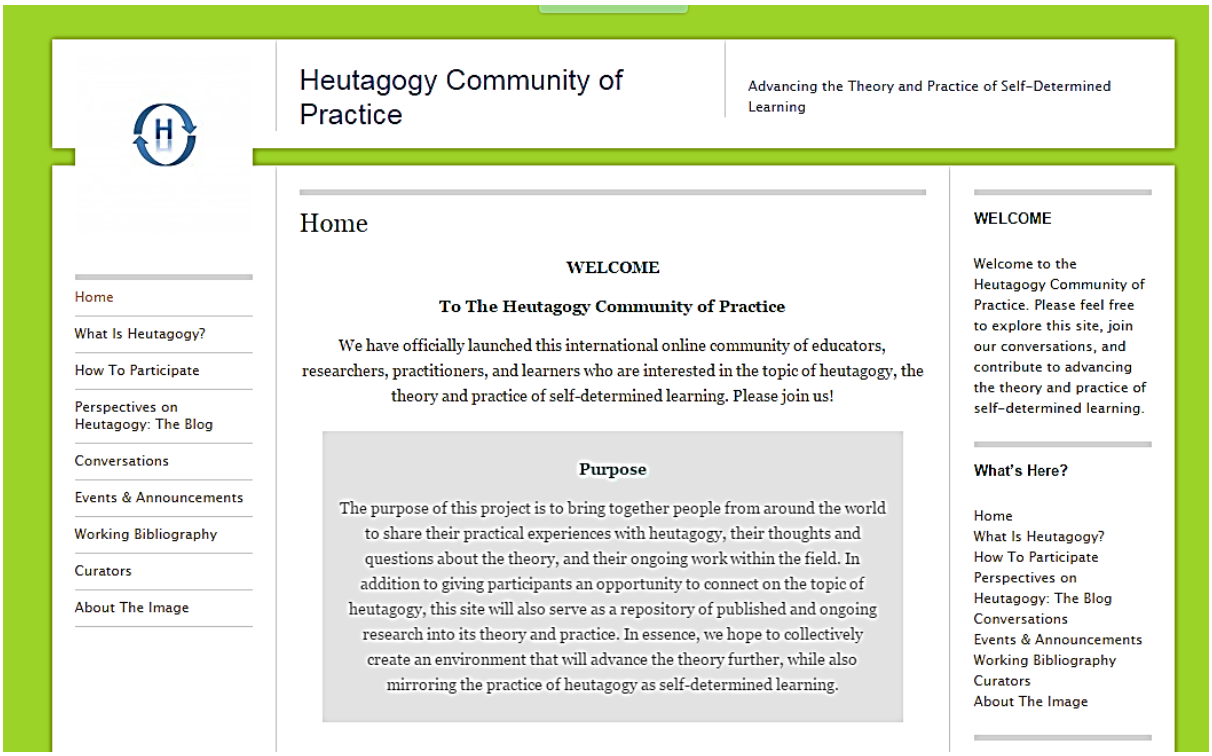

Figure 4.4. Heutagogy Community of Practice (http://heutagogycop.wordpress.com/)

Creating a personal learning environment (PLE) is another way to use media to help students move toward becoming more self-determined in their learning. PLEs are a network of tools and online information sources and communities that serve as the continual source for the learner in acquiring new knowledge, answering the question: where do you learn? Figure 4.5 shows an example of my personal PLE.

Lessons Learned

From my classroom experiences I have learned:

1. *Don't have all the answers.* Force learners out of their comfort zones to explore new ways of learning. Be their guide rather than their guru.
2. *Let learners fail.* We learn more from our mistakes – or adventures than when we stay within the confines of correctness. Push your students' boundaries by encouraging exploration and learning. Let them fail and then help them learn from the experience.
3. *Encourage every step toward independence, no matter how small.* People are motivated by genuine compliments – not patronage – and by constructive criticism. Giving students formative assessment helps them along the way, showing them how best to improve.

4. *Scaffold the process (individualized and personalized)*. Each learner comes from a different context, a different history, and a different perspective. Some are further along the self-determined learning path than others, and by meeting learners where they are, you are providing them with one of the most learner-centered educations possible.

5. *Give learners the freedom to choose*. Pink (2011) finds that in the workplace, when people have the autonomy to make choices, they will be more motivated to learn – which also applies in the learning environment. Deci & Flaste (1999) write: "When autonomous, people are fully willing to do what they are doing, and they embrace the activity with a sense of interest and commitment" (p. 2).

6. *Maximize use of tools on the social web*. The old adage goes: "If you give a man a fish, you feed him for a day; if you teach a man to fish, you feed him for a lifetime." By educating students to become competent and capable in the use of tools on the social web, we are giving them tools that they can use for a lifetime.

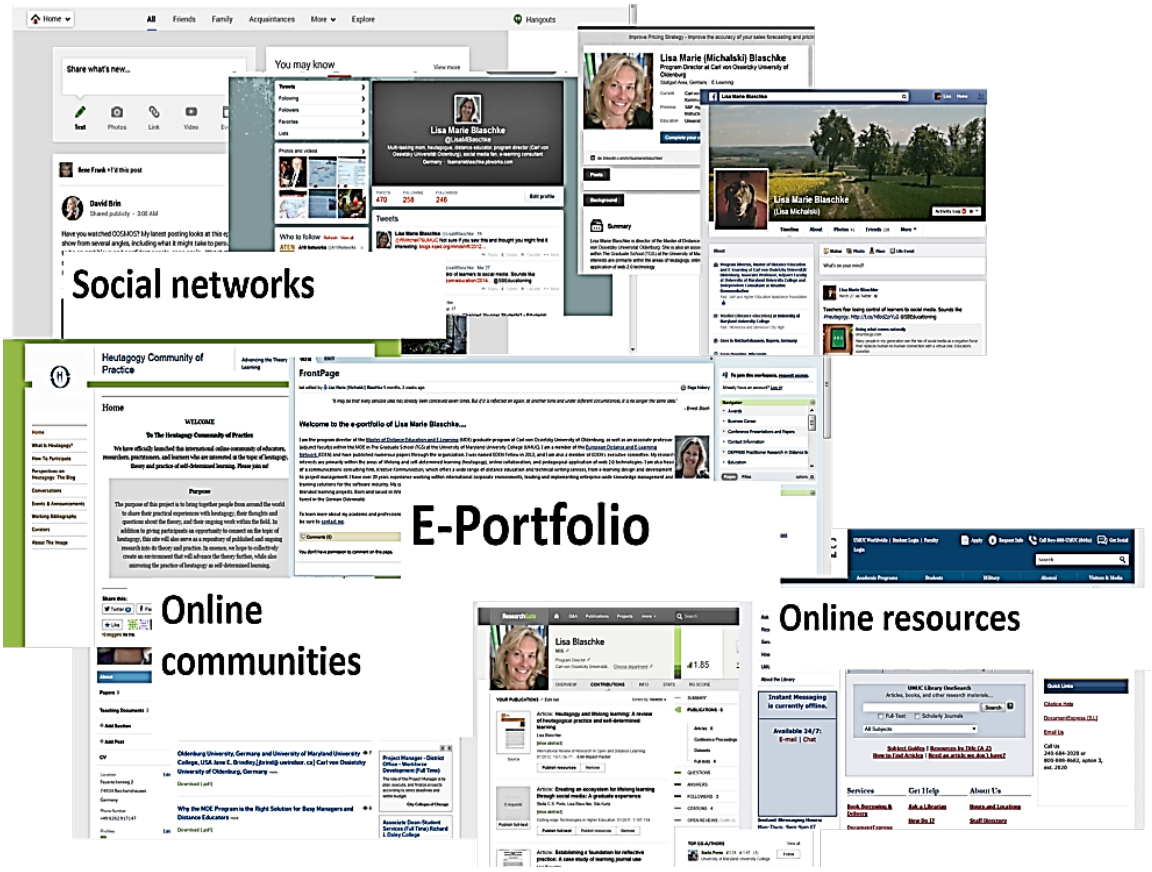

Figure 4.5. Example of a Personal Learning Environment (PLE)

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Further Resources

The Heutagogic Archives: http://heutagogicarchive.wordpress.com/page/2/

Heutagogy Community of Practice: http://heutagogycop.wordpress.com/

Heutagogy CoP LinkedIn group: http://www.linkedin.com/groups/Heutagogy-Community-Practice-4776262

Heutagogy CoP on Twitter: https://twitter.com/HeutagogyCoP

Future of Learning: Self-Determined Supported by Technology: http://www.scoop.it/t/future-of-learning-self-determined-supported-by-technology

A Knowledge Management Blog by Luis Suarez: Thinking Outside the Inbox. [Blog.] http://www.elsua.net/

Life Without E-Mail Community: https://plus.google.com/u/0/communities/112379942033795190661

MindShift: https://www.facebook.com/MindShift.KQED

Smart Blog on Education: http://smartblogs.com/education

5 ASSESSMENT AS AN ONGOING ACT OF LEARNING: A HEUTAGOGICAL APPROACH

Melanie Booth

Summary

A heutagogical approach to learning calls for a heutagogical approach to assessing learning. How will we know we have learned what we hoped to learn? How will we know how far we have come on our learning journey, and how far we might have to go, or what other pathways we might want to explore? How will we develop additional learning approaches given our goals and our desires? A heutagogical approach to learning requires that we be self-authoring learners, and thus view assessment not as a discrete measurement of our learning, not as a score on a test we must pass, and not as our report card or transcript. Instead, assessment becomes an ongoing act of our learning – an inherent and integrated element of our learning process and our ongoing practice as learners. As an act of learning, assessment involves at least two promising practices: 1) seeking and receiving guidance and feedback from others who have helpful feedback to offer, and 2) reflection and critical reflection as a form of self-assessment, review, and planning. This chapter provides an overview of a perspective about assessment as an ongoing act of learning - a heutagogical approach.

A New Culture of Learning: Heutagogy and Becoming a Self-Authoring Learner

In the teaching-based approach, students must prove that they have received the information transferred to them – that they quite literally "get it." As we will see, however, in the new culture of learning the point is to embrace what we don't know, come up with better questions about it, and continue asking those questions in order to learn more and more, both incrementally and exponentially. The goal is for each of us to take the world in and make it part of ourselves. In doing so, it turns out, we can re-create it. (Thomas & Seely Brown, 2011, p. 38)

I have borrowed this paragraph from Thomas and Seely Brown's (2011) book *A New Culture of Learning: Cultivating the Imagination for a World of Constant Change* because it is about heutagogy. The book itself does not claim to be about heutagogy; instead, it claims to discuss learning in a technology-infused world: "where technology is constantly creating and responding to change" (p. 17). As the authors state in their first paragraph, learning that will define the twenty-first century does not take place in a classroom, but instead happens all around us.

Heutagogy is about learning that happens all around us, "a process where knowledge is created through the transformation of experience and the control of that experience comes from the individual learner" (Canning, 2010, p. 70). A helpful framework to understand what it takes to learn from a heutagogical perspective – from a strong position of both competence and capability – is that described by Drago-Severson (2004). Drago-Severson, who builds on Kegan's (1982, 1994) constructive-developmental theory, identifies three ways of

knowing: instrumental, socializing, and self-authoring, the last of which corresponds to what it takes to learn with a heutagogical approach. People using an instrumental way of knowing tend to pursue education to acquire something, and knowledge is "a kind of possession, an accumulation of skills, facts, and actions that can yield solutions – a means to an end" (Drago-Severson, 2004, p. 29). Socializing knowers view education as something to pursue to be someone, and knowledge is seen as information that a person should know; it "meets expectations of teachers and authorities" and "comes from high authorities and experts who hand down truth and understanding" (Drago-Severson, p. 29).

Self-authoring knowers, however, "have the capacity to take responsibility for, and ownership of, their own internal authority … they have the capacity not only to identify (and identify with) abstract values, ideals, and longer-term purposes, but also to prioritize and integrate competing values; to apply the expectations and demands of others to their own internal bench of judgment" (Drago-Severson, 2004, p. 27). For self-authoring knowers, education is pursued to *become* someone, knowledge is experienced as constructed, and "knowledge comes from a self-generated curiosity and sense of responsibility for ones' own learning" (p. 29). Perhaps most significantly, self-authoring knowers strive to address their own expectations, their own standards of quality, and can internally evaluate their progress and attainment.

Assessment in the New Culture of Learning

If heutagogy is about self-determined learning by self-authoring learners, then assessment in a heutagogical context becomes a metacognitive aspect of the learning process. Assessment will thus not be an attempt at some finite measurement of learning. It will not be a judgment about us or how well we have learned something, or a test about what we just learned and can regurgitate. Importantly, assessment in a heutagogical framework does not position a teacher as an evaluator and thus an authority – but instead positions the learner as a privileged informant about his or her own learning (Cambridge, 2010).

Assessment as an act of learning becomes an ongoing process of seeking information from a myriad of sources – including oneself – about one's learning in order to inform continued learning. It is an inquiry into one's learning – what am I learning, how well am I learning it, what else do I need to learn or want to learn, and how do I know? Furthermore, we not only ask questions about the content of our learning, but also about our developing competence *to learn*. Therefore assessment in this new culture is not being done *to* us as learners; it is being done *by* us and *with* us. The learner is the assessor, and the assessment. In this way assessment is, itself, an act of learning, not separate from it or after it, but an act of it. Assessment, as Blaschke (2012) points out, becomes flexible and negotiated, and a critical component of reflective practice.

Heutagogy is theoretically infused by the concept of double-loop learning, which has this perspective of assessment built in, where learners "consider a problem and the resulting actions and outcomes, in addition to reflecting upon the

problem-solving process and how it influences the learner's own beliefs and actions" (Blaschke, 2012, p. 59). It is through single-loop learning that we can begin to know if we have learned what we hoped to learn; how far we have come on our learning journey and how far we might have to go, or what other pathways we might want to explore. It is through double-loop learning that we can begin to know how to develop additional learning approaches given our goals and our desires, and how what we have experienced and learned informs our fundamental beliefs and how we enact those beliefs.

Two Promising Assessment Approaches

When we position assessment as an act of learning – with the learner as the assessor – at least two promising assessment approaches become available: 1) seeking and receiving guidance and feedback from others who have helpful guidance and feedback to offer, and 2) self-assessment through reflection and critical reflection.

Guidance and feedback from others

Seeking and gaining guidance and feedback from others can help us in our learning in multiple ways. Feedback from others more knowledgeable about a specific topic, skill, or approach can provide us with subject or domain expertise that can support our ongoing learning in that specific area. Furthermore, other people who stand on "equal ground," as Thomas and Seely Brown (2011) describe, can also be important mentors who provide structure to help guide our learning:

In the new culture of learning, people learn through their interaction and participation with one another in fluid relationships that are the result of shared interests and opportunity. In this environment, the participants all stand on equal ground – no one is assigned to the traditional role of teacher or student. Instead, anyone who has particular knowledge of, or experience with, a given subject may take on the role of mentor at any time. (p. 51)

Guidance and feedback from others can also help us continue to develop our awareness (Marton & Booth, 1997) about our own learning processes – our metacognition – thus making us better and better learners.

Heutagogy calls for learner and teacher to both be learners in the "learning + teaching" process. Both, or multiple, people can become learning partners or co-learners. The relationships, in fact, quite often become reciprocal and highly collaborative, where learners work together to create shared meaning and to reflect about what and how they learned, and how to apply it in practice (Canning & Callan, 2010). As self-authoring, heutagogical learners, we do not look to authority figures such as teachers to give us the right facts and skills (and then assess our receiving of those facts and skills for us), as the instrumental way of knowing seeks; nor do we focus on meeting the expectations and standards of teachers and other authorities, as the socializing way of knowing focuses on. The typical authority role of a teacher, as presented through the lenses of pedagogy and

andragogy, simply does not apply. This role is a construct that disappears as we come to develop the capacities to be self-authoring and agents of our own learning, in a community with others, and "heutagogy is achieved through shared meaning making in a relational, facilitative approach to reflection" (Canning, 2010, p. 75).

Self-assessment through reflection

When the construct of another person as the authority figure – a teacher – goes away, and that person no longer assesses and judges our learning, our ability to self-assess becomes critical. Self-assessment via reflection and critical reflection becomes an invaluable method for assessing our own learning in a formative way. Barnstable's 16 Outcomes of Reflection (2010) provides one way of considering reflection as a means to assess learning. By thinking back, thinking forward, thinking inward, and thinking outward, we can clarify and deepen our learning experiences and outcomes. And while reflection is certainly one practice that can aid in the assessment of learning, critical reflection takes reflection – and learning and self-assessment – one step deeper.

Critical reflection occurs when we analyze and challenge the validity of our presuppositions and assess the appropriateness of our knowledge, understanding and beliefs given our present contexts (Mezirow, 1990). Brookfield (1990) identifies three phases of critical reflection:

1. Identifying the assumptions ("those taken-for-granted ideas, commonsense beliefs, and self-evident rules of thumb" (p. 177)) that underlie our thoughts and actions;
2. Assessing and scrutinizing the validity of these assumptions in terms of how they relate to our 'real-life' experiences and our present context(s);
3. Transforming these assumptions to make them more inclusive and integrative, and using this new knowledge to more appropriately inform our future actions and practices.

Critical reflection, however, is not easy, nor is learning how to do it easy. In Brookfield's (1994) study of adult educators developing the ability to use critical reflection as a learning process, a theme he named *"roadrunning"* emerges from participants' journals, conversations, and autobiographies.

Roadrunning is:

> A rhythm of learning that might be called incremental fluctuation; put colloquially, it can be understood as two steps forward, one step back, followed by four steps forward, one step back, followed by one step forward, three steps back, and so on in a series of fluctuations marked by overall movement forward. (Brookfield, 1994, p. 211)

As with learning any new skills or practices, fluctuations in our abilities to reflect critically can be expected, and we can become frustrated, concerned, or even scared by what we are experiencing. Critical reflection often leads to transformation: we may make a discovery that challenges our deeply engrained belief systems; we may consider that what we once knew is not true. As Lemony Snicket (2007) describes in Horseradish regarding the transformation we can experience when losing a loved

one: "It is like walking up the stairs to your bedroom in the dark, and thinking there is one more stair than there is. Your foot falls down, through the air, and there is a sickly moment of dark surprise as you try and readjust the way you thought of things." (p. 111).

Brookfield reminds us that learning critical reflection is, in and of itself, a challenging learning experience, and that it is important that as learners, we have opportunities to understand the emotional ebbs and flows that occur. He suggests that through participation in reflective learning communities – communities of other learners – we can gain support: "Knowing that one is not alone in thinking or feeling something that seems divergent is an important step in coming to take one's own experience seriously" (p. 214). Again, the role of others in a heutagogical learning and assessment framework is essential.

As we become self-determined learners, we take responsibility for our learning – for our learning processes and our learning outcomes – and we thus take responsibility for the practice of assessing our learning through the process of critical reflection. When we seek guidance from, and listen to, feedback from ourselves and from others – even critical feedback that may challenge our very ways of knowing and being – we can exponentially advance and deepen our learning experience.

Lessons Learned

As I have pondered the purposes and approaches of assessing learning from a heutagogical perspective, I have come to believe that there are some fundamental principles at play that shift how we think about ourselves as learners, and if we teach, how we think about ourselves as teachers.

Firstly, to be self-determined learners, we must be willing to think about ourselves as learners, as opposed to thinking about ourselves as someone else's student. This might be a shift in how we see our roles and our responsibilities, but more so, in how we see our *selves*. With this perspective, we are responsible for honestly assessing our own learning, which is a key feature of a self-authoring way of knowing. We ask ourselves "Am I maintaining my own standards and values? Am I competent? Am I living, working, and loving to the best of my ability? Am I achieving my goals and reaching my ideals?" (Drago-Severson, 2004, p. 30). The ability to self-assess and to integrate other's perspectives and feedback – including criticism – becomes a key capability in a heutagogical framework.

Secondly, and as you have read throughout this chapter, learning from a heutagogical perspective requires our ongoing practice and trying different approaches for seeking feedback and engaging in self-reflection. As previously mentioned, working in communities of learning or communities of practice with other people who can provide critical and constructive feedback and who can engage in reflective conversations with us, is one strategy. In small groups or when working one-on-one, learners can ask each other questions, provide

guidance to each other, help each other solve problems, and reflect back to each other their observations and ideas about each other's learning.

Another strategy is more personal and individual: Writing in a journal (such as responding to prompts such as "*What* have I learned? So *what* does it mean? And now what will I do with that new knowledge?) can help record our reflections and also allow us to see our growth over time. Yet another strategy connects the personal to the community and offers a way to self-reflect and self-assess and gain feedback at the same time. This may be achieved by creating a portfolio of items that demonstrate what you know and can do, and then describing (in writing or verbally) to others how the products represent your knowledge and skills, how you went about your learning and creating process, as well as what you might do differently next time and why.

Through such a process, you can articulate your learning to yourself and others, reflect on your learning processes and outcomes, and gain that ever so important feedback from others. As we move toward being agents of our learning and self-authorship, we can more effectively engage in this new culture of learning by making our learning processes and products more visible to ourselves and others, and by opening ourselves up to new ways of thinking and being.

A final observation is that to become a self-determined, self-authoring learner is a developmental process – even for, and perhaps most significantly for, adults. We do not wake up one morning and decide "Waa laa! Today I am a self-determined learner! Today I will do heutagogy!" Though we are born as learners, and we continually learn throughout our lives, we must raise our processes and practices of learning to a new level of our consciousness – we must become *aware* (Marton & Booth, 1997). We must ask ourselves hard questions, deeply engage with ourselves and others in difficult discussions, and celebrate our learning accomplishments. And again, by no means does this mean that we are alone in our learning or that we have to learn alone: it does mean that we develop a reliance on our own internal checks and values when it comes to exploring and inquiring about "what have I learned?"

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Further Resources

Communities of practice: A brief introduction. http://wenger-trayner.com/theory/

Seeking, Accepting, and Using Feedback to Develop a Clear Understanding of your Strengths and Areas for Development. Aspire Consulting.
http://www.aspireconsulting.net/learning-from-experience-blog/bid/282880/Seeking-Accepting-and-Using-Feedback-to-Develop-a-Clear-Understanding-of-your-Strengths-and-Areas-forDevelopment

Self-reflection: Reflective questions to ask yourself. The Open University.
http://www.open.ac.uk/choose/unison/develop/my-skills/self-reflection

Keep a learning journal. Open Polytechnic Kuratini Tuwhera.
http://www.openpolytechnic.ac.nz/study-with-us/study-resources-for-students/how-to-study-concentrate-and-remember-what-you-ve-learnt/keep-a-learning-journal/

What is a learning journal?
http://www.peicpt.com/sitefiles/File/Portfolio/LearningJournal.pdf

DEAL Model for Critical Reflection:
http://servicelearning.duke.edu/uploads/media_items/deal-reflection-questions.original.pdf

6 NEW PATHWAYS TO KNOWLEDGE AND LEARNING

Rónán O'Beirne

Summary

This chapter presents practical examples of heutagogic learning, reports on the diverse learning journeys, methods, and views of individual participants, and demonstrates heutagogic theory.

Introduction

Over the past thirty years or so we have witnessed the slow birth of a new era of self-determined learning, with technology acting as the attendant midwife. While there are various theories providing us with explanations of, and ways of understanding, andragogic and heutagogic learning, there is a need to look at some practical and concrete examples. It is always good practice to test a theory, because this often reinforces or deepens our understanding. The disruptive nature of technology has brought about changes in the world of learning, one result being that the knowledge and information that has traditionally been arranged and stored within institutions has been liberated.

There are three objectives in this chapter. The first is to explore heutagogy that is grounded in, or supported by, practical example. The second objective, closely related to the first, is to look at technology as an emerging theme which can be seen as a key driver for heutagogy, and which encompasses the changing relationship between the heutagogic learner and traditional bodies of knowledge, for example the library. Finally the third, and perhaps somewhat ambitious, objective, is to examine ways in which learning may be entering a self-determined phase in which the scaffolding of traditional education systems is being at least transformed, or at most rendered redundant, by the emergence of empowered learners who are making practical use of technology to engage with new bodies of knowledge.

Methodology

This chapter is based on an approach using propositions that are intended to stimulate discussion and to inform our knowledge on a range of subjects. These propositions are formed from a series of informal conversations held with learners who are learning in a heutagogic way – that is, in a self-determined fashion. The methodology used in this study therefore relies loosely on empirical data compiled by the author from a variety of contexts which are regarded by the author as useful vignettes locating learners within a heutagogic context. With increased acceptance of the personal narrative approach, usually as a participant or facilitator in methodologies such as action learning (Chivers & Yates, 2010), it seemed a valid approach to use in this small-scale research exercise into heutagogic practice.

There is no attempt within this chapter to create a representative sample of people from whom data can be gathered and then extrapolated to confirm theory. Instead, a technique is employed that will allow the reader to understand the learning in a more direct anecdotal way than might have been achieved through representations of quantitative survey data. Parallels can be drawn with a Delphi study methodology, but in this instance the experts are themselves learners who have an intimate knowledge of their own motivations, goals and rewards. This approach can, in a sense, be seen as self-determined research!

A final word on methodology: educational research has its own conventions, and these have evolved into a series of methods which can be seen as predominantly positivist in nature. One obvious difficulty that heutagogic learners present is accessibility, simply because they do not form a cohesive group, in contrast with the way a discrete body of learners, such as that typically found in a college or university, would do. This difficulty might restrict access to, and information on, progress for the researcher. In addition, the problem of identifying such learners, or indeed such learning behaviours, can be challenging. In pursuing a more interpretivist approach, it is important to understand the motivations behind heutagogy.

Background

While various contexts provide backdrops for the discussions in this chapter, what is common to all is the upheaval that technology has driven over the past four decades. The results of this are discernable in many ways. Most important for the learner is the way in which technology has transformed bodies of knowledge and, one could argue, set this knowledge free. Another is the way in which technology has facilitated broad real-time and multi-channel communications. Both of these outcomes are in themselves agents of change within learning and, more widely, education. The impact on education is manifest in the writings that are emerging about Massive Open Online Courses (MOOCs). But we are less concerned here with education; our main focus is on the learner. Indeed, I would argue that the impact of technology on the individual learner is more fundamental, more direct and more immediate than the effect that is filtering, somewhat slowly, through academic practice. The shift in learners' ability to access knowledge first-hand represents a challenge for educational institutions. Moreover, the secondary impact of technology, the ability of learners to collaborate outside and beyond the structures of formal education, presents an even larger threat to the status quo of such institutions.

In today's online environment, where communication is instant and global, self-determined learners are likely to take advantage of transient social connections, for instance the crowdsourcing of expertise. In such a scenario, learners themselves generate content and also become learning resources.

There are two natural points of departure for this discussion, first the impact of technology to shift a body of knowledge, and second the social connections that are a hallmark of the web 2.0 social networking. Of course, there is not a clean demarcation line between these two points. We can see overlap, and indeed a key

feature of many of the technologies, their use and their consequences, is the presence of blurred boundaries and, to some extent, apparent contradictions. For instance, probably one of the most obvious examples is the distributed body of knowledge, Wikipedia, which is characterised by its incompleteness, multi-authorship and distributed nature.

The Shift in Knowledge Accessibility

Where does the grand body of knowledge fit in with the heutagogic learner? Are the roles of institutions like the library, and by extension the university, becoming less relevant? I am aware that to answer this question in scope and scale is well beyond the remit of this chapter. However, the question does allow us to consider the shape of one aspect of the emerging learning landscape.

The premise here is that traditional learning is structured around bodies of knowledge. Pathways through knowledge become well-trodden, and form boundaries which delineate and categorise, and so the structures of knowledge and the ways of learning begin to take shape. Historically, the availability of resources to support learning, essentially texts in the form of books, dictated where and how formal learning took place, and this was generally in libraries, which were often religious in their origin. Larger libraries became seats of learning, evolving into universities and, more recently, into an education system. We are currently seeing a further transition in learning to the online environment, and one of the key propositions presented to heutagogic learners is the challenge of digital learning. At the same time, one of the great opportunities of this environment is the potential to distribute knowledge globally.

Many heutagogic learners are happy to learn by taking a journey of discovery. They do not embark on a clearly defined path through an established body of knowledge, but rather they assemble a range of goals that they wish to achieve and begin to move towards these. Often a starting point for this type of learning approach is to engage with (the edges of) a body of knowledge. This approach can begin with anything from a poem to a collection of local history archives, an oil painting in a local gallery or a geological feature in a local landscape; it can be participating in a local activity or undertaking a personal fitness programme.

Sandra, an informant in this study, charts her own path towards acrylic landscape painting independently of any formal institution, and uses YouTube™ videos to learn different techniques. On a couple of occasions she has speculatively contacted artists through their websites, in order to gain some piece of knowledge or an insight into a technique, and says:

> They are usually very keen to answer my questions and to demonstrate techniques or provide details of materials suppliers." Sandra welcomes the global village that she understands the world-wide web to be, and appreciates the challenges that come with its benefits. She does not have an end point to her learning.

Public libraries can be viewed as a useful example of how a body of knowledge can form the focus of learning. To illustrate this point, Proctor and Bartle (2002) show how a library user engages with subject matter in a self-determined way:

> I can sit there and it's like a wonderful bag of goodies. I'm trying to read all the old Derbyshire newspapers from 1785, and it's superb – I know things the experts don't! When you're studying for qualifications you go in straight lines – now I wander. (Chesterfield library user).

This quote illustrates a sense of the learner developing a personal approach and a willingness to pursue self-fulfillment. The insight of this astute learner on being able to wander rather than "go in straight lines" is one of the most vital characteristics of heutagogic learning. Locating learning within the public library can provide a wider social benefit.

Public libraries are unique in the way that they can allow those tiny quanta of learning to change people's lives quite invisibly. Nobody has ever measured the social good of such effects although public library service managers know that service users expect the library to meet their information and reading needs again and again and again. The invisibleness of the process means that it has not featured in any of the national discussions about lifelong learning. Yet the continuous process of learning for life managed better could make a significant difference to the lives of everyone. (Batt, 1997, p. 203).

The majority of learners with whom I spoke, and who are cited in this study, tended not to have a clearly defined approach to how they might use a body of knowledge. That is to say, they were open to using different materials as they felt necessary. Those who were focused on an activity that required theoretical underpinning, or who needed to adhere to some form of standardisation, sought these through a range of channels.

The objectives and motivations of most self-determined learners are complex. Chris Batt (1997) noted the following characteristics of informal learning:

> …learning is not simply about following accredited courses to obtain qualifications. It is about gaining knowledge to lead better, more fulfilling lives. Such learning comes frequently in very small quanta. It may be finding out where something is sold more cheaply, or how to travel from A to B in less time. It may be broadening one's emotional experience by reading about the life of another person, locating the self in the context of other people, be they real or fictional. (p. 203)

Colette, another informant in this study, attends a book club where each month a novel is discussed. She finds it highly stimulating:

> Sometimes there is disagreement about the novel. At first this worried me, then I realised that everything is open to interpretation. There is no right or wrong – it's really just your own personal opinion. It's your response to the writing - that's what's interesting.

Mark has a visual impairment. In addition to his career at a local hospital, he embraces a range of practical activities. He built an extension to his house using various tools and techniques which he specially adapted. This became an ambitious, and yet highly rewarding, learning project. Mark's interactions with a body of knowledge were undertaken through recourse to the expertise of his father. Technical requirements such as building regulations were adhered to by close cooperation with a range of people. What is fascinating about Mark's approach is the task focus of his learning. The linear development of a building project provided the structure for his learning, and the project itself dictated the pace at which Mark needed to learn. There was no opportunity for Mark to

wander. He comments, “I only learn what is absolutely necessary.” With his sight problems, Mark finds himself planning much of a project in his mind. In undertaking a building project, he conceptualised how a process such as block-laying would develop, speculated about what might go wrong and anticipated how he would be able to address the problems.

It is the thesis of this chapter not only that we are seeing the potential for an increase in the number of self-determined learners, as the knowledge that has been traditionally stored in university libraries is being liberated from the institution and made available on the Internet. An open agenda, such as open science, is shifting the process from closed, institutionally curated content towards open access. In addition, the learners themselves are generating content. This revolution in knowledge production is immense, and is building a self-perpetuating model for learning.

Kelly, an informant in this study, is a Wikipedia fanatic. She is registered as an editor and regularly contributes to a range of articles online, writing, editing, checking and correcting entries. “I learn a lot from doing this and it ultimately helps others. Wikipedia has a growing reputation for being a serious port of call for basic facts and on occasion some more in-depth detail.” Kelly’s position is interesting, as she is not absolutely certain that she is a learner. After some discussion, she suggested that she was both a learner and a teacher, but she was quick to add that she did not feel like someone associated with a school or university. For Kelly, the university is living on borrowed time, the Internet presenting it with many challenges.

It is perhaps too early to suggest that we are approaching a post-university era or a time of post-institutional learning (Bradwell, 2009), but certainly the availability of materials and knowledge beyond the boundaries of the institution disrupts the educational establishment fundamentally. One should pause for a moment here to consider the Internet itself as an entity. Is it simply a replacement for other institutions, another hierarchy providing us with a fresh approach to “open content” and “open learning”, or is there something really novel, revolutionary and emancipating about the Internet and, by extension, its contribution to the learning process? With the advent of the Internet, the raw materials for learning, for example books and people (in the form of coaches), are now widely available online, and potential learners need to understand how such material can be accessed. The process of exploring digital resources is in itself intrinsically heutagogical. In the 21st century browsing the world-wide web and gaining a wider knowledge is at the core of becoming a self-determined learner. In this way, the Internet’s contribution is significant.

One might be tempted to criticise the institution (or library) for overstaying its welcome as the curator of knowledge, and for its almost deliberate knowledge containment policy that is based on a knowledge scarcity model rather than an abundance model. The institutionalisation of learning was necessary in order to marshal the assets of learning and to bring learning objects together within a physical structure, but now, one simple, hugely important innovation, the

hyperlink, has reduced the need for physical proximity to learning materials. This means that knowledge can follow a distributed model where pathways and boundaries can be personalised and shared outside the limitations of the physical world.

Heutagogic learning may not, at first glance, appear to be collaborative in its approach; it may not seem to fit into the social constructivist category. However, the informants in this study provide a jumping-off point which may suggest that emerging practices of heutagogic learners can in fact be highly collaborative.

It is perhaps apposite here to return to the emergence of MOOCs, and their evident attraction for those who have an appetite for learning. The statistics below, presenting information on those who are involved in learning via MOOCs, suggest that a particular demographic is drawn to them. One of the most interesting statistics is the number of those attracted to MOOCs who already held qualifications:

- 5 % of all registrants earned a certificate of completion.
- 35 % never viewed any of the course materials.
- 54 % of those who "explored" at least half of the course content earned a certificate of completion.
- 66 % of all registrants already held a bachelor's degree or higher.
- 74 % of those who earned a certificate of completion held a bachelor's degree or higher.
- 29 % of all registrants were female.
- 3 % of all registrants were from underdeveloped countries. (Kolowich, 2014, para. 6).

Marcus is an artist. One of his many talents and joys is to construct art from objects that have been retrieved from nature, for example a large tree trunk. Marcus develops his learning via the development of his art, and he experiments with different approaches and materials. The activities of the craftsman, and the perception of art as a learning venture, are of interest to many people. That structured curiosity, coupled with practical skills-building, is a key tool in the self-determined learner's garden shed. Indeed, the concept of teaching art, that is teaching potential artists to appreciate and explore the subject, and to develop practical skills, has for many years been a subject for debate. In a heutagogic sense, the teaching of art looks like a difficult goal to achieve without at least some self-determined learning.

Brian is a printmaker and typesetter. His skills are highly developed, and he has been a teacher in art schools for over thirty years. He remains, however, essentially a learner. He embraces new technologies with enthusiasm, and is critical of waste and irrelevancies in his focus on achieving his goals. Yet he will experiment in many ways to explore different printing techniques to bring his latest etching to

life. Brian's depth of experience is his body of knowledge. He reflects upon it and shares it. He uses it to ignite fresh ideas and to complement his wisdom.

Mick and Chris, a couple who were both informants in this study, make wooden sculptures from driftwood. Mick, formerly a professional carpenter, is using his skills in a different but related way, while Chris has discovered a new creative talent. They say that this activity is just a hobby, and while of course may be the case, a large amount of learning is taking place. Asked how they learned how to do this craft, they say, "We learned it as we went along – when we came across a problem we just figured out a way around it."

Lessons Learned

The brief insights into learning provided by the informants offer some practical examples of different learning approaches. Sometimes learning is achieved through engagement with a body of knowledge, and in other instances the approach is more direct and pragmatic. Knowledge itself is being shared more freely. A useful area for further research would be to examine the impact of open education policies on informal learning. The increased use of digital technology allows learners to be connected, and this aspect provides a wide range of opportunities, from accessing the knowledge of experts, who might be regarded as learning objects, to collaborations across large groups of learners. A further dimension is the harnessing of crowd wisdom and crowdsourcing, such wide-scale collaborations can be seen as participatory learning.

An article in the New Scientist magazine (Rutkin, 2014) looked at the growing use of public libraries in supporting makerspaces. This might be an early indication of a shift in society's values towards an appreciation of the creative. Indeed, the sharp increase in hackerspaces and makerspaces would indicate a more direct approach to learning in line with a heutagogy that has a renewed "craft" aspect. This in turn might reflect a backlash at the digital dominance that has spread across the creative industries.

The informants in this study portray their key motivators in relation to a wider life story. Often a self-development aspect is a key driver. This is interesting because such intrinsic motivation is often absent in an institutionally based scenario, where wider factors such as the opportunity bargain are the primary motivators (Brown, Lauder, & Ashton, 2010).

In addition to these explorations, the importance of the learning that is associated with non-traditional knowledge items, such as objets trouvés and digital serendipity, is another aspect that might be explored within the process of creative heutagogy. This area of research provides a whole new vista for further exploration. The apparent randomness of material in the social network, and its transient and ephemeral nature, provide many interesting opportunities for heutagogic learning.

This chapter touched briefly on the open agenda that is gaining traction globally, and the impact this is having in the sciences through initiatives such as open

science. The emerging area of digital humanities provides a fresh canvas upon which the new relationships of knowledge fuelled by technology can be sketched. We may be seeing the copy and paste generation, and its liberal use of the "undo" button, beginning to shape a new "just in time" approach to learning. Again, further investigation of the heutagogic link with new technologies and their practice is needed. Finally, there is the question of how different environments might facilitate heutagogic learning and, in particular, how relevant the notion of digital literacy is to the heutagogic learning endeavour.

In pulling together the threads outlined above, and in offering a brief glimpse at some areas of potential investigation, the conclusion seems positive; a broad range of external contributors, coupled with a fundamental human motivation, suggests that the time is right for the heutagogic learner.

Note: The names of informants in this study have been changed.

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7 MOVING FROM EDUCATION 1.0 THROUGH EDUCATION 2.0 TOWARDS EDUCATION 3.0

Jackie Gerstein

Summary

This article compares the developments of the Internet and the Web with those of education. The web influences people's way of thinking, doing and being, and people influence the development and content of the web. The evolution of the web from Web 1.0 to Web 2.0 and now to Web 3.0 can be used as a metaphor of how education should also be evolving, as a movement from Education 1.0 towards that of Education 3.0. The Web, Internet, Social Media, and the evolving, emerging technologies have created a perfect storm or convergence of resources, tools, open and free information access. The result is not only a change in what individuals learn but how, why, and where they learn. Taking this one step further, or from another angle, moving from Education 1.0 to Education 3.0 can be likened to moving from Pedagogy/Essentialism/Instructivism through Andragogy/Constructivism towards Heutagogy/ Connectivism. Source materials and content for this article, and the associated graphics come from Education 3.0: Altering Round Peg in Round Hole Education

(http://usergeneratededucation.wordpress.com/2013/06/09/education-3-0-altering-round-peg-in-round-hole-education).

Lessons Learned: Moving Education 1.0 Through Education 2.0 Towards Education 3.0

The evolution of the web from Web 1.0 to Web 2.0 and now to Web 3.0 can be used a metaphor of how education should also be moving, developing, and evolving from Education 1.0 towards that of an Education 3.0. The Internet has become an integral thread of the tapestries of most societies throughout the globe. The web influences people's way of thinking, doing, and being; and people influence the development and content of the web. The Internet of today has become a huge picture window and portal into human perceptions, thinking, and behavior. Logically, then, we would expect that schools would follow suit in matching what is happening via the Internet to assist children and youth to function, learn, work, and play in a healthy, interactive, and pro-social manner in their societies-at-large. More often than not, sadly, this is not the case. Many educators are doing Education 1.0 and talking about doing Education 2.0, when they should be planning and implementing Education 3.0.

Education 1.0: A Pedagogical, Essentialist Education

Education 1.0 is a type of essentialist, behaviorist education based on the three Rs – *receiving* by listening to the teacher; *responding* by taking notes, studying text, and doing worksheets; and *regurgitating* by taking the same assessments as all other students in the cohort (Figure 7.1). Learners are seen as receptacles of that

knowledge, and as receptacles they have no unique characteristics. All learners are viewed as being the same. It is a standardized/one-size-fits-all education.

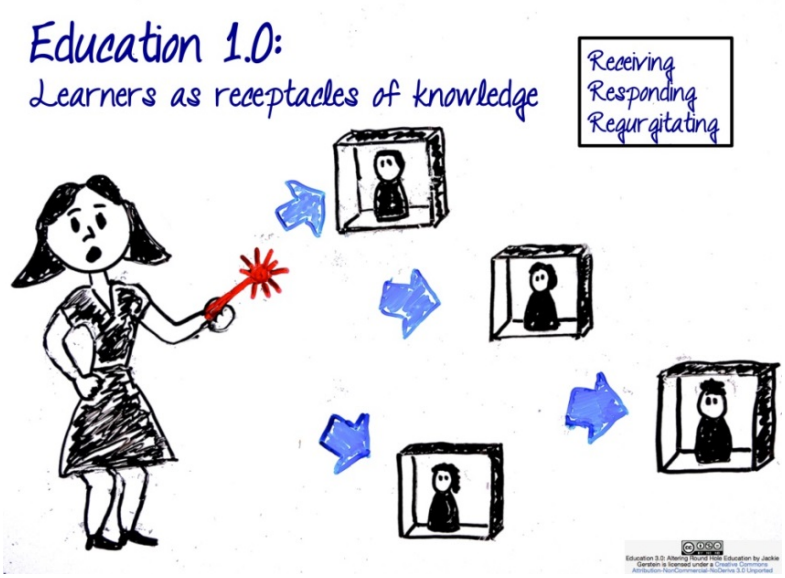

Figure 7.1. Education 1.0: Learners as receptacles of knowledge

Teachers prior to the Internet, as we know it today, were one of the primary gatekeepers of information. Education 1.0 was often the best choice given the resources and technologies of that time in history. Other than libraries and news outlets, students were dependent on the educator to provide them with information. As such, a major role of the educator, similar to the beginning stages of the web, was to provide students with content knowledge in a one-way, often didactic format.

Education 1.0 can be likened to Web 1.0 where there is a one-way dissemination of knowledge from teacher to student. Derek W. Keats and J. Philipp Schmidt (2007) provide an excellent comparison of how Education 1.0 is similar to Web 1.0.

Education 1.0 is, like the first generation of the Web, a largely one-way process. Students go to school to get education from teachers, who supply them with information in the form of a stand up routine that may include the use of class notes, handouts, textbooks, videos, and in recent times the World Wide Web. Students are largely consumers of information resources that are delivered to them, and although they may engage in activities based around those resources, those activities are for the most part undertaken in isolation or in isolated local groups. Rarely do the results of those activities contribute back to the information resources that students consume in carrying them out (Keats & Schmidt, 2007, para. 6).

Education 1.0: An Essentialist Philosophy

Education 1.0 can be classified as an essentialism or instructivism teaching and learning philosophical orientation. These educational frameworks or philosophies fit the characteristics of an Education 1.0 or a traditional pedagogical teaching framework.

Essentialism tries to instill all students with the most essential or basic academic knowledge and skills and character development. In the essentialist system, students are required to master a set body of information and basic techniques for their grade level before they are promoted to the next higher grade. Essentialists argue that classrooms should be teacher-oriented. The teachers or administrators decide what is most important for the students to learn with little regard to the student interests. The teachers also focus on achievement test scores as a means of evaluating progress (Essentialism, n.d., para. 1).

In instructivist learning theory, knowledge exists independently of the learner, and is transferred to the student by the teacher. As a teacher-centered model, the instructivist view is exhibited by the dispensing of information to the student through the lecture format. This theory requires the student to passively accept information and knowledge as presented by the instructor (Pogue, 2009, para. 2).

The final piece of understanding the philosophical underpinnings of an Education 1.0 is that of pedagogy.

There is little doubt that the most dominant form of instruction in Europe and America is pedagogy, or what some people refer to as didactic, traditional, or teacher-directed approaches. The pedagogical model of instruction was originally developed in the monastic schools of Europe in the Middle Ages. Young boys were received into the monasteries and taught by monks according to a system of instruction that required these children to be obedient, faithful, and efficient servants of the church (Knowles, 1984). In the pedagogical model, the teacher has full responsibility for making decisions about what will be learned, how it will be learned, when it will be learned, and if the material has been learned. Pedagogy, or teacher-directed instruction as it is commonly known, places the student in a submissive role requiring obedience to the teacher's instructions. It is based on the assumption that learners need to know only what the teacher teaches them (Hiemstra & Sisco, 1990, para. 2-3).

This essentialist, instructivist, pedagogical teaching model is still the most predominant model in current kindergarten through college public education, even in these modern times of ubiquitous information and technology (Figure 7.2). The learner in an essentialist, instructivist, pedagogical learning environment, given 21st century technologies, and through instruction of the teacher may:

- Access information via ebooks and websites, but these often lack any type of interactivity or capabilities for the learner to comment, share, or interact with the content.
- Watch, learn, and take notes from live and/or video lectures that focus on didactic dissemination of content and information.

- Use technologies and mobile apps based on drill and grill where learners are given direction instruction via these technologies and asked to provide the correct answers via quiz questions. (I classify these technologies as worksheets on steroids.

Education 2.0: An Andragogical, Constructivist Approach to Teaching and Learning

Education 2.0, like Web 2.0, permits interactivity between the content and users, and between users themselves. With Web 2.0, users moved from just accessing information and content to being able to directly interact with the content through commenting, remixing, and sharing it via social networks. Web 2.0 also saw the development of social media which permits users to communicate directly with one another both synchronously and asynchronously.

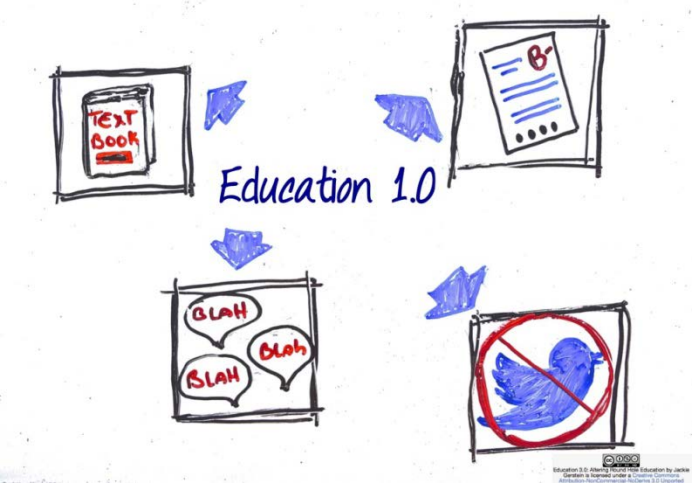

Figure 7.2. Education 1.0 learning environment

Similar to Web 2.0, Education 2.0 includes more interaction between the teacher and student; student to student; and student to content and expert. Education 2.0 has progressive, humanistic roots where the human element is important to learning. The teacher-to-student and student-to-student relationships are considered as part of the learning process. Education 2.0 focuses on the three Cs – communicating, contributing, and collaborating (Figure 7.3).

Education 2.0 happens when the technologies of Web 2.0 are used to enhance traditional approaches to education. Education 2.0 involves the use of blogs, podcasts, social bookmarking and related participation technologies but the circumstances under which the technologies are used are still largely embedded within the framework of Education 1.0. The process of education itself is not transformed significantly although the groundwork for broader transformation is being laid down (Keats & Schmidt, 2007, para. 7).

Some school administrators and educators have taken progressive steps and moved into a more connected, creative Education 2.0 through using project-based

and inquiry learning, cooperative learning, global learning projects, Skype in the classroom, and shared wikis, blogs and other social networking in the classroom. With Education 2.0 though, the teacher is still the orchestrator of the learning. S/he still develops the learning activities and is the facilitator of learning.

Figure 7.3. Education 2.0: Learners as communicating, connecting, and collaborating

Education 2.0 takes on the characteristics of an andragogical, more constructivist teaching orientation where the principles of active, experiential, authentic, relevant, and socially-networked learning experiences are built into the class or course structure. Andragogy has been described for teaching adult learning, but basic principles can be extracted from andragogy and applied to the teaching of most age groups.

The andragogical model is a process concerned with providing procedures and resources for helping learners acquire information and skills. In this model, the teacher (facilitator, change-agent, consultant) prepares a set of procedures for involving the learners in a process that includes (a) establishing a climate conducive to learning, (b) creating a mechanism for mutual planning, (c) diagnosing the needs of learning, (d) formulating program objectives (content) that will satisfy these needs, (e) designing a pattern of learning experiences, (f) conducting these learning experiences with suitable techniques and materials, and (g) evaluating the learning outcomes and re-diagnosing learning needs (Holmes & Abington-Cooper, 2000, para. 17).

Project-based learning with a focus on authentic, real world problems, networked learning, and use of collaborative digital tools would fit into an andragogical orientation (Figure 7.4).

A growing number of educators are heralding the arrival of an era of technology-enhanced PBL. Using educational software and online tools to promote learning is nothing new in most schools. Many teachers remember the days of steering

students to educational internet sites and having them present reports in PowerPoint. Now, teachers and students can choose from an ever-expanding cornucopia of digital tools that enable a new level of collaboration, analysis, and presentations (Schachter, 2013, para. 6).

An andragogical, constructivist learning environment typically has the following characteristics:

1. Constructivist learning environments provide multiple representations of reality.
2. These representations represent that complexity of the real world.
3. Knowledge construction is emphasized over knowledge reproduction.
4. Learners participate in authentic tasks in meaningful contexts.
5. Real world settings are provided.
6. Thoughtful reflection on experience is encouraged.
7. Collaboration and social negotiation is encouraged among learners.
8. There's an integration and activation of prior knowledge.
9. Discovery learning, collaborative activity, and hands-on activities are often integrated into the learning activities (Abdal-Haqq, 1998; Jonassen, 1994 as cited in Learning Theories/Print Version, n.d).

Education 3.0: A Heutagogical, Connectivist Approach to Teaching and Learning

Web 3.0 is affording us with relevant, interactive and networked content that is freely and readily available and personalized, based on individual interests.

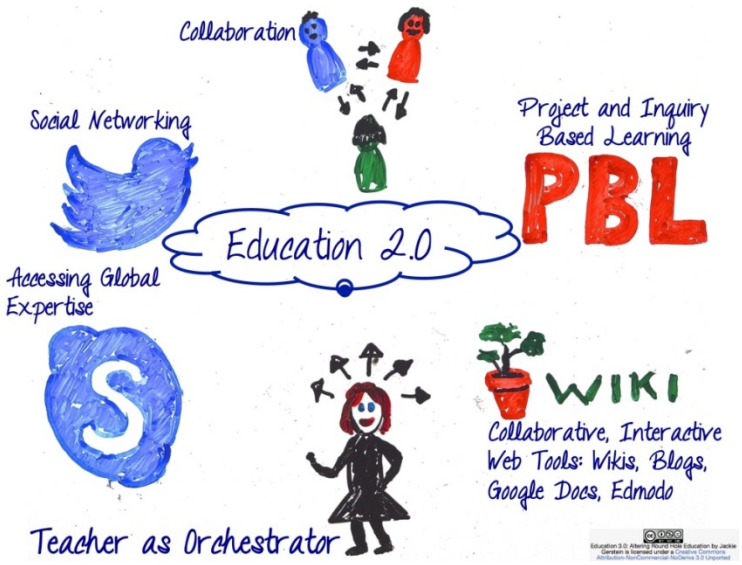

Figure 7.4. Education 2.0 learning environment

Web 3.0 will provide users with richer and more relevant experiences. Many also believe that with Web 3.0, every user will have a unique Internet **profile** based on that user's browsing history. Web 3.0 will use this profile to tailor the browsing experience to each individual (Strickland, 2008, para. 15). Web 3.0 will be able to search tags and labels and return the most relevant results back to the user (Strickland, 2008, para. 30).

Education 3.0 is based on this understanding – a personalized, self-determined education (Figure 7.5). Education 3.0 is self-determined, interest-based learning where problem-solving, innovation, and creativity drive education.

Education 3.0 is characterized by educational opportunities where the learners themselves play a key role as creators of knowledge artifacts that are shared, and where social networking and social benefits play a strong role in learning. The distinction between artifacts, people and process becomes blurred, as do distinctions of space and time. Institutional arrangements, including policies and strategies, change to meet the challenges of opportunities presented. There is an emphasis on learning and teaching processes with the breakdown of boundaries (between teachers and students, institutions, and disciplines (Keats & Schmidt, 2007, para. 9).

Figure 7.5. Education 3.0: Learners as connectors, creators, and constructivists

Education 3.0 is also about the three Cs but a different set – connectors, creators, and constructivists. These are qualitatively different than the three Cs of Education 2.0. Now they are nouns which translate into the art of being a self-determined learner rather than "doing" learning as facilitated by the educator. The learners become the authors, drivers, and assessors of their learning experiences with the educator truly being the guide on the side.

In the absence of a more relevant learning process in schools, our nation's students increasingly are taking their educational destiny into their own hands and adapting

the various tools they use in their personal lives to meet their learning needs and prepare themselves for the future, according to the 2009 Speak Up survey of 300,000 students nationwide. This "free-agent learner" student profile accurately depicts the way many of today's students are approaching learning. For these students, the school house, the teacher and the textbook no longer have an exclusive monopoly on knowledge, content or even the education process. These students are leveraging a wide range of learning resources, tools, applications, outside experts and each other to create a personalized learning experience that may or may not include what is happening in the classroom (Project Tomorrow, 2010, p. 1).

Learners already possess many skills related to self-determined learning due to their informal learning experiences interacting with the web. Educators can and should assist learners in transferring these abilities and skills into more formal learning settings. With Education 3.0, the educator's role truly becomes that of guide-as-the-side, coach, resource-suggester, and cheerleader as learners create their own learning journey. The educator has more life experience, knows (hopefully) about the process of learning, and has more procedural knowledge about how to find, identify, and use informational resources and social networking for learning purposes.

Not only, then, does the educator help steer students in some more productive directions, s/he models the process of self-determined learning, thus increasing the students' aptitude for this type of learning. Learners themselves also become mentors, teachers, and model learners for one another, sharing best practices and strategies for effective learning.

Education 3.0 is more of a heutagogical, connectivist approach to teaching and learning. The teachers, learners, networks, connections, media, resources, and tools create a unique entity that has the potential to meet individual learners', educators', and even societal needs. Education 3.0 recognizes that each educator's and student's journey is unique, personalized, and self-determined.

The *heutagogical*, connectivist orientation is closely aligned with Education 3.0.

In a heutagogical approach to teaching and learning, learners are highly autonomous and self-determined and emphasis is placed on development of learner capacity and capability. The renewed interest in heutagogy is partially due to the ubiquity of Web 2.0, and the affordances provided by the technology. With its learner-centered design, Web 2.0 offers an environment that supports a heutagogical approach, most importantly by supporting development of learner-generated content and learner self-directedness in information discovery and in defining the learning path (Blaschke, 2012, p. 56).

Even though heutagogy is often defined and described for adult learner, given these times where we are living with open education resources and *information abundance* (http://usergeneratededucation.wordpress.com/2012/12/09/information-abundance-implications-for-education/). Learners as young as the elementary level have the potential to engage in educational experiences based on heutagogy.

In other words, they can engage in self-determined and self-driven learning where they are not only deciding the direction of their learning journey but they can also produce content that adds value and worth to the related content area or field of study.

Added to this equation is that this new landscape of learning has created opportunities for deep, broad, and global connections. George Siemens (2004) has defined the characteristics of connectivism as:

- Learning and knowledge rest in diversity of opinions.
- Learning is a process of connecting specialized nodes or information sources.
- Learning may reside in non-human appliances.
- Capacity to know more is more critical than what is currently known.
- Nurturing and maintaining connections is needed to facilitate continual learning.
- Ability to see connections between fields, ideas, and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.
- Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision (para. 25).

All of these principles of learning naturally lead to Education 3.0. The learners in an Education 3.0, heutagogical, connectivist learning environment:

- Determine what they want to learn and develop their own learning objectives for their learning, based on a broad range of desired course outcomes.
- Use their learning preferences and technologies to decide how they will learn.
- Form their own learning communities, possibly using social networking tools suggested and/or set up by the educator. Possible networks, many with corresponding apps, include: Facebook®, Twitter, Edmodo, Instagram, blogging sites, YouTube®, and other social networks.
- Utilize the expertise of educators and other members of their learning communities to introduce content-related resources and suggest Web 2.0 and other online tools for that the students could use to demonstrate and produce learning artifacts.
- Demonstrate their learning through methods and means that work best for them. It could include using their mobile devices to blog, create photo essays, do screencasts, make videos or podcasts, draw, sing, dance, etc.
- Take the initiative to seek feedback from educators and their peers. It is their choice whether or not to utilize that feedback.

Teacher Mindset: Barriers to Change

So, given that the that the time is ripe for Education 3.0, that we are in a perfect storm of free and available online resources, tools for creating and sharing information, and networking opportunities, what is stopping administrators and educators from implementing an Education 3.0 approach … at least some of the time? Some of the reasons educators profess include: "I don't have enough time."; "I don't have enough resources."; "I need more training."; "I need to teach using the textbook."; "I need to teach to the test."; "I might lose control of the class."; "I have always successfully taught this way." (Figure 7.6).

These are the symptoms of a fixed mindset, of educators being strictly teachers *in* an Education 1.0 environment. Many educators feel forced into this paradigm of teaching. But, in reality, these are external obstacles whereby most of blame for resisting change is placed outside of educator responsibility. The result is a fixed mindset of learned helplessness, "I cannot change because the system won't let me change." Sometimes educators are creating some obstacles for themselves that in reality don't exist. "Talking them into" or insisting on specific changes often creates more and stronger walls of resistance.

Figure 7.6. Teacher mindsets: Barriers to change

Making the Shift from a Fixed to a Growth Mindset

A mental shift occurs when a fixed mindset, which often leads to learned helplessness, is changed to a growth and positive mindset, where one believes that there are options: that one can grow, change, and be significant (Figure 7.7). It becomes focusing on what can work rather than what is not working. This is not to devalue the obstacles that educators face. It becomes about noting where

change is possible and making some small changes in teaching. Small changes often result in larger, more systemic change.

Figure 7.7. Moving to a growth mindset

The bottom line, though, is not is what is in the best interests of the teacher, the administration, or the politicians. It is what is in the best interests of the learner. The student should be central to education – not the content, not the tests, not the standards, not what we think students should know and do. Teachers did not become teachers to teach to the test, to develop practice tests or worksheets, to work with pre-scripted curriculum to meet standards. Teachers became teachers to teach students, first and foremost. The learner needs to be central to all teaching endeavors.

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THE TEACHERS

8 SKILLS FOR THE LEARNER AND LEARNING LEADER IN THE 21ST CENTURY

Stewart Hase

Summary

We live in a rapidly changing world that requires people to have the ability to adapt much more quickly than in previous times, where events moved much more slowly. Education is not immune from these changes even though it is an inherently conservative pastime. In the face of significant innovation in educational practice and as espoused in self-determined learning (heutagogy) and other perspectives, there are new skills to be adopted by learners and learning leaders alike. In this chapter I discuss what these skills might look like.

A Change in Perspective

At the heart of the process of learning is the realisation of human potential. When humans explore and experience they are actively engaged in finding out how to manage their world, inner and outer. It's what we do from our arrival on this planet to when we leave it. The enterprise of learning, which is any educational or training activity that is engineered, should attempt what humans do naturally, to achieve their potential, otherwise it is an empty process.

This idea is not new of course and is based on giants such as Vygotsky, Rogers and, more recently, Ken Robinson. But the problem seems to be that much of what we do in education and training practice does not aspire to this aim of achieving human potential. Rather it has a narrow spectrum that as an activity rarely gets beyond the application level on Bloom's Taxonomy. The reasons for this are clear. Our education and training systems are essentially utilitarian and have been so since the advent of the industrial revolution. Our education and training systems seek to provide competent workers for organisations. They are required to do no more than this.

Realising human potential through learning, however, can be a much more dynamic activity. It means finding ways to enable participants to explore, discover, test hypotheses, research, confront, reflect, change, create, analyse, and synthesise. Heutagogy places an emphasis on these activities in formal and non-formal learning environments (see Chapter 1).

In order to fully engage the learner, formal learning needs to place the learner at the centre of the process, not at the end after the curriculum and the teacher. Learning is a dynamic process, not linear, in which the learner is a full partner with the learning leader rather than being subordinated.

Throughout the literature on self-determined learning, there are four main supporting factors for recognising this shift of emphasis to the learner as central to his/her learning:

1. The role of human agency in learning.
2. The sociological impacts on learning brought about by the invention of the Internet.
3. Neuroscience research, which has provided, and continues to provide at a rapid rate, hard evidence about how people learn.
4. The hard wiring in the brain, which enable humans to learn.

Self-determined learning is an evidence-based approach to understanding learning, and educational and training systems. (You can read about its main principles in Chapter 1.) Like many of the theories on which self-determined learning is based, these principles challenge more traditional teacher-centric approaches in educational and training practice. Certainly self-determined learning is a challenge to institutions that rely on mass education for their survival. I am continuously encouraged by the number of practitioners who contact me after learning about heutagogy who immediately 'get it'.

It remains to be discovered what differentiates those who are more likely to adopt self-determined learning principles from those who are not. However, in this chapter I'm going to have a go. My personal experience and my understanding of the research suggests that there are people who have certain attributes and skills that will make them open to change and to innovations, such as self-determined learning.

The principles of self-determined learning suggest a dynamic relationship between the learner and the teacher. It is one where there is a high degree of negotiation over content, process, and assessment. The focus is on the learner rather than the teacher or the curriculum. The learner is in control of their own learning. The word teach is defined in various dictionaries as, "giving information", "to instruct", and "to give a lesson". A teacher is someone who teaches. These definitions, and common practice, imply an active role for the teacher and a passive one for the learner. Teaching is something that is done to the learner.

I'd like to suggest that given the supporting factors for self-determined learning noted above that we need to think of the teacher as a leader: a guide rather than an instructor. To make this more explicit I suggest adopting the title of Learning Leader in place of teacher.

The rest of this chapter describes the attributes and skills that the learning leader needs in the 21st century learning environment. But first, a word about learners in the modern world, who also need special skills in order to learn effectively.

The Learner

Humans are very accomplished learners immediately after they are born. They are hard wired to experiment with the world. Learning a language is no problem for them along with a host of motor, social, and cognitive skills, well before they arrive at the school gates. In the ego-centric world of the child, these skills are truly at the

heart of the learning process, aided and abetted by their environment including, variously, the people around them

Some insightful educational writers have proposed a number of essential skills that learners need in order to cope with the 21st century. One of my favourite lists that summarises these skills has been developed by Jackie Gerstein (2013) in a neat pictorial (see also Tony Wagner's work (n.d.), which Jackie refers to in her description).

In short, however, these skills are:

- effective oral and written communication;
- collaboration across networks;
- agility and adaptability;
- grit;
- resilience;
- empathy and global stewardship;
- vision;
- self-regulation;
- hope and optimism;
- curiosity and imagination;
- initiative and entrepreneurialism;
- critical thinking; and
- problem solving (Gerstein, 2013).

I would add knowing how to learn to this list. The challenge for educators and educational institutions is to create learning experiences that incorporate these abilities along with the necessary three R's. In fact, it might be argued that these abilities are critical because they enable learning, a lifelong need in order to survive in the modern world. The principles of self-determined learning (see Chapter 1) were especially developed to provide an expansive learning experience, based on the notion of human agency, that is, learner-centric rather than teacher- or curriculum-centric. Thus a self-determined learning approach is more likely to develop the personal abilities described above, including the capacity to learn. Developing these abilities also requires special skills on the part of the learning leader.

From a self-determined learning perspective learners need to be able to take control of their learning. This requires a degree of self-efficacy and confidence. Barbara Brandt (2013), a mature student experiencing a heutagogical approach, reflected that it was not easy adjusting to being in control of one's own learning. She also noted, however, that once she became more confident of her self-determined learning skills, she disliked going back to "old" methods in other courses that were not heutagogically designed. Self-efficacy and confidence are abilities that can be developed and nurtured in the learner by an effective learning leader, which will be discussed next.

At the outset and as part of thinking through potential learning outcomes, the learner needs to negotiate with the learning leader, the process to be used to learn and, if appropriate, assessment design. If the learner has largely been exposed to a teacher-centric system and passive learning behaviours in the past, this may be a difficult transition. But, as Brandt (2013) attests, it is a worthwhile journey. My approach is to ask learners how it is they learn about their favourite hobby or what they do when they want to know about something that interests them. They usually respond easily with a clear description of how competent a learner they really are. Going through this process can help remove the fear of trying something new that is the result of their cognitive schema associated with their past experience as learners in formal education settings.

The now common use of the Internet and social media poses an interesting challenge for the learning leader in the 21st century who have to guide learners as they research content. Learners need to become great researchers. This means not only knowing how to access information but how to validate it or at least test its credibility. Using a biblical aphorism this means being able to sort the wheat from the chaff. There is a lot of great information, some wonderful ideas and engaging opinions out there on the Internet. It is important to be able to verify sources by accessing appropriate journals and books, or networking with experts in the area to find out if what is being read can be substantiated.

A related skill to research is the ability to recognise a good argument as opposed to simple conjecture, which is common on the Internet. This is the art central to philosophy, which has sadly gone the way of the Dodo in our utilitarian education system. The ability to think rather than blindly accept can also be learned.

We also live in a world in which ideas are communicated using a variety of different methods. Twitter is a great example of such a media that has been enormously successful as a means to share and learn. There are a myriad others. Learning leaders need to think about ways to incorporate these media in designing learning experiences.

I have long argued that one of the things that post secondary education does well is to teach people to write essays. This is more of an academic skill and not one that is particularly useful in life unless one becomes an academic or is involved in writing research reports. As we know examinations measure people's abilities to do exams as much as they measure knowledge and ability. Assignments measure the learner's abilities to write assignments. Not everyone is a skilled writer. I still know academics who will send assignments back to students unmarked if they do not reference correctly.

Learning leaders need to be more imaginative in designing assessment methods that go beyond written exercises yet which still measure the required competencies. There are many archiving applications that can be used for learners to demonstrate their learning, for example. Formative rather than summative assessment may be a more equitable way of measuring learning Black & Wiliam, 2003). The questions learners ask may be more important then the answers they give. Finally, project-

based assessment and portfolio development are particularly amenable to self-determined learning.

Learning Leadership

Wandering through the academic literature on current requirements for teacher competence and teacher effectiveness, it is interesting to note a mismatch between the two. Most of the research on teacher competences is very much focused on traditional models of education. That is, the teacher is in control and the student a passive recipient. According to the most recent and comprehensive review of the literature on teacher competencies by the European Commission on Training and Education (2013), teachers and students alike see the main teaching competencies as involving:

- knowledge of subject;
- classroom management;
- enthusiasm;
- professionalism;
- approachability;
- clear instruction and assessment;
- good communication;
- an understanding of inclusion and diversity;
- understanding of how groups work and developmental psychology;
- being able to use technology and social media; reflective and metacognitive skills;
- being able to adapt to educational contexts;
- the ability to change;
- teamwork, collaboration and networking;
- planning and being organised;
- and self-efficacy (European Commission on Training and Education, 2013)

A quick review of the web sites of several educational institutions and government education bodies in the US, Australia and the UK showed that they often have similar emphases often with the addition of specific dimensions such as developing the student's problem solving and critical thinking skills. They also include skills such as curriculum development, teamwork, and the usual abilities people need to work in an organisation. However, there is wide variation with some sites emphasising more constructivist and student-centred learning, and others focusing on the skills of giving an entertaining didactic lecture.

It is also interesting that students often share similar views as teachers when asked in surveys about what makes a good teacher. They cite issues such as knowledge of subject matter, enthusiasm for the subject, instructional technique, approachability, humour and clear communication, for example (Delaney et al, 2010; Layne, 2012).

Most of the research on student perceptions relate to didactic teaching, and the art of presentation, rather than learning.

The research on teacher effectiveness, judged by how well students or schools perform, has a somewhat different focus. We see issues arise such as motivating students, high but realistic expectations, learner-centredness, vision, and adaptation (see Cotton, 2003; MacGregor, 2007). It also seems that effective teachers are also leaders. For example, Reeves (2006) thinks that learning leadership is central to the teaching endeavour, not just for formal leaders in schools but for teachers in general.

Given the needs of learners in the 21st century and new approaches to meeting these needs provided by theories such as self-determined learning, we need to go beyond these traditional notions of teacher effectiveness and roles. The idea of learning leadership is consistent with the concept of learner-centred learning. It talks to a transformative, enabling, and facilitative role, a shared vision, and engagement.

In light of the above, I would like to propose a set of abilities and skills for the learning leader. These are listed below in Table 8.1 and sorted into four categories or factors.

Table 8.1: The Learning Leader Framework/Categories

The capacity to accept and manage ambiguity	**Attributes** Low need for control Openness to experience * Moderate on perfectionism scale * High stability and low anxiety * Capability **Skills** Project management Ability to use social media *Some of "The Big 5 Personality Traits" (see References)
The ability to foster engagement	**Attributes** Empathy Optimism Flexibility to change approaches as circumstances change **Skills** Interpersonal effectiveness Ability to self-regulate Understanding of how to motivate others Ability to foster a shared purpose and vision Maintaining direction Fostering the joy and rewards of learning

The capacity to learn	**Attributes** Willingness to change own ideas and beliefs **Skills** Ability to research and learn Being thoroughly on top of one's subject areas Having wide and accessible networks Ability to share openly with others Knowledge management skills The ability to foster collaborative learning Ability to apply learning and knowledge (practical skills)
The ability to use open systems thinking	**Attributes** Willingness to empower others **Skills** Capacity to frequently scan the external environment and respond to changes Ability to foster participative democracy/collaboration decision-making and process Capacity to work in a team as both leader and as a member Ongoing internal and external analysis of effectiveness (continuous improvement) The ability to filter information (research skills)

These four categories are not intended to be hierarchical. Each category is described in terms of attributes and skills. Personality and cognitive schema or mental models also play a role and are two aspects of the human condition that are very stable and very hard to change. Both concern how we understand the world, and they determine our behaviour. There are people with certain personality types who find it difficult to manage ambiguity (Bochner, 1965; Hogan et al, 1997; Pervin & John, 1999; Potkay & Allen, 1986). These are people who need lots of control in their life, those who become anxious around uncertainty and the highly conservative who dislike change. Being open to new experiences and the willingness to try something new are traits likely to lead to being able to confront ambiguity with a positive attitude; this is seeing something new as an advantage rather than as a burden. In the case of fostering engagement, it is well known that certain personality traits, such as empathy, optimism and flexibility, are useful (Newman, 2008). Similarly, unless a person is willing to relinquish power, then using systems thinking techniques will be impossible.

Personality is very stable over time (Cobb-Clark & Shurer, 2012; Roberts & DelVecchio, 2000). It is true that some aspects of personality can change but only under certain circumstances that are usually dramatic and involve a significant emotional experience. Or it may change if the personality trait is not very strong. Most textbooks on leadership seem to imply that desirable personality traits can be learned but there is little if any evidence for this. It can be helpful to

understand what one's traits are and how these traits affect other people, and how we behave. Awareness might assist in some modification of behaviour but this is likely to be temporary and takes a lot of energy. Under stress the person will revert to type more often than not.

Cognitive schema is the psychological term for our understanding of the way the world works, our attitudes, values, and beliefs. It is well accepted in the field of psychology that along with personality that cognitive schema drive behaviour (e.g., Beck et al, 1990). They are also very stable and difficult to change. Often cognitive schema will be more powerful in driving action even in the face of facts to the contrary.

It was F. Scott-Fitzgerald who said that, "the test of a first-rate intelligence is the ability to hold two opposing ideas in mind at the same time and still retain the ability to function". In fact, this sort of ability is a rare commodity largely because it is not a natural tendency for the brain to operate in this way. In short, it is much too difficult and requires a great deal of energy that can be put to better use.

We are more likely to find ways to justify our actions when challenged than to shift position. You only have to watch someone attempting to argue with another who has a different political or religious view to see this in action. Mostly, cognitive schema are resilient to facts or to contrary evidence of any kind. So, we are more likely to be influenced by our experience of education in the past than we are by new research that contradicts what we believe about how people learn best. This has been a major barrier to innovation in education.

Thus, the capacity to learn in Table 8.1 is dependent on the ability for someone to be reflexive, to be able to challenge his or her own dogmas and beliefs in the face of contradictory evidence. It involves double loop and triple loop learning. In my view this is a very mature attribute but essential for an effective learning leader.

Lessons Learned

My journey in self-determined learning almost certainly started around the age of 10 or 11. I had a primary school teacher named Mr Cook. He practiced self-determined learning. It was 1960, and Mr Cook was well ahead of his time. His lesson was so powerful that it enabled me to continue to be a self-determined learner even though five years of grammar school Latin classes tried to transform me into a passive, disinterested learner.

It has been my experience that some people are able to see new opportunities and pursue them energetically and not be frozen with fear. Without these people change would not happen or if it did it would be so slow that we would never notice. These people are resilient (or become resilient after constant war wounds) to negativity and pursue ideas.

This chapter has come about because of a lifetime of working with people, helping them change through psychotherapy, education, training, and coaching and

mentoring. It is my strongly held view from experience and my reading in psychology that people seem to function best and are happier, when they use their in-built predilections, traits, strengths. Hopefully, what I've written here will stimulate further discussion about what we mean by leading learners.

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Further Resources

The Big 5 Personality Traits:
http://http-server.carleton.ca/~tpychyl/011382000/BigFive.html.

A more extensive description of the Big 5 can be found at:
http://psych.colorado.edu/~carey/Courses/PSYC5112/Readings/ps

9 HEUTAGOGY AND SOCIAL COMMUNITIES OF PRACTICE

Will Self-determinded Learning Re-write the Script for Educators?

David Price

Summary

The concept of professional development is being radically reframed by the rapid growth of self-determined communities of practice. The characteristics of self-organised informal, fluid, learning networks help explain their power and diffusion. The way that educators are self-organising their professional development is highlighted in this chapter but such networks are appearing in every professional sector. The emergence of these communities of practice presents a number of challenges to conventional models of professional learning. First, they are flattening and democratising the notions of expertise and sources of authority, and second, they present a conundrum to those charged with "managing" knowledge. Thirdly, they threaten to render obsolete our conventional models of "scaling-up" or diffusing innovation; and fourthly (and most significantly) they offer the opportunity for educators to shed the mantle of compliance, and reclaim their lost professional autonomy. This chapter examines the ways in which educators are incorporating informal and social learning approaches in their work in order to de-privatise their professional practice and take control of their personal learning.

Teachers Are Doing It For Themselves

Scenario 1:

On March 2nd, 2012, over 350 teachers hurry, after school, to attend a TeachMeet event in a technology park in Sydney. I'm one of dozens of presenters who sign up to share, in either seven or two minute slots, what works for them in their classroom practice. Presentations are interspersed with light-hearted group activities, and lots of cake.

Scenario 2:

On a Saturday morning, two years later, I take part in a Twitter hashtag (#) meeting for educators. Like TV coverage of New Year's Eve fireworks, those following the hashtag #satchat are staggered three times around the world - first in Australia, then the east coast of America and, finally, the west coast. Some dedicated people take part in all three events, all of which end up "trending" in their respective nations.

Scenario 3:

Meanwhile, in the first week in September, returning teachers in English schools begin the academic year by wearily attending compulsory training events, still known as "Baker Days". They are called this, even though 25 years have passed

since the then Secretary of State for Education, Kenneth Baker, mandated five school training days per year for teachers. Bored staff surreptitiously check emails on their mobiles, while health and safety requirements are subjected to Death by PowerPoint®.

These sharply contrasting manifestations of self-determined and "delivered" professional learning point to the fundamental shift in how we view knowledge, and the institutional challenge to formal learning that social learning presents. Education is just one sector in which traditional models of professional learning are fast becoming redundant. All areas of work-based learning are being disrupted, leaving learning professionals excited and perplexed in equal measure. The reasons are not hard to find.

The cascade model of knowledge transfer, in which knowledge trickles down the hierarchical chain, seems increasingly out of place in a world where knowledge is readily available, and spread laterally, informally and democratically. Additionally, while the economic value of knowledge has failed to match predicted claims, the advent of web 2.0 has meant that the social value of knowledge has soared. The commercial necessity to re-align values, communications and operations has been profound. The demise of intellectual "property" has led businesses to seek to find other ways to make money, not from the knowledge, but from the implementation of that knowledge. Almost overnight it seems, businesses have had to reach out – to crowd source innovation, and become social organisations.

At the same time, employees have become frustrated that the open, borderless learning they engage in when not at work, is shunned in many offices. It's hard to see the logic (other than a lack of trust) in preventing staff from using Twitter and other social media tools, while at work when they have become the primary tools of the trade for many socially connected employees – but the majority of employers still do. And how do corporations manage and support organisational learning when an employee's closest collaborator may be on the other side of the globe, let alone the other side of the building?

The Self-determined Learner

The past three decades have seen a precipitous drop in employee autonomy. In 1986, 72% of professionals felt they had a "great deal of independence" in their work, and by 2006 that proportion had fallen to 38% (Chakrabortty, 2011, para. 11). In education, this period has been defined by the steady ratcheting-up of high-stakes accountability, with an accompanying pressure upon teachers to plan lessons according to a formula and to teach according to a "script". Professional learning has become the tool to reinforce those constrictions. Little wonder then, that the average length of service of new entrants to teaching has fallen to around five years (Gallant & Riley, 2014; McMillen, 2013). In many schools in the US, UK, and Australia, experienced teachers point to a "culture of compliance" throughout the system: all but the bravest of leaders comply with rules: teachers are required to comply with the need to improve test scores; and students comply with the demands of what they increasingly view as the "exam factory".

In spite of – or perhaps as a result of – this erosion of professional capability, a growing number of educators have taken matters into their own hands. In 2000, the first TeachMeet was hosted in a pub in Edinburgh by Ewan McIntosh. Since then, the meetings have mushroomed in popularity, with hundreds of events taking place in over a dozen countries. Their common features give a clue to their success: short, fast-paced presentations; anyone can sign-up to present; short break-out discussions facilitated by volunteers; randomness (TeachMeets are rarely themed); a Twitter "back-channel" to allow non-attendees to take part. "Newbies" are strongly encouraged to present– a two-minute description of a successful teaching strategy is unlikely to intimidate even the most reticent of practitioners. TeachMeets are organised entirely by volunteers, are refreshingly non-proprietorial, and they are reinforcing virtual networks of teachers, nationally and internationally.

Similarly, the growing phenomena of Twitter hashtag meet-ups and online "unconferences" indicate the desire of teachers to be more in control of their own professional learning. There are regular hashtag meetings in almost every subject discipline, involving a global community of teachers. Meetings usually last an hour and are moderated by volunteers. Online conferences have also sprung up through the improvement of webcast technologies. The Global Education Conference is one such example (http://www.globaleducationconference.com). Involving over 10,000 participants, sessions are held around the clock for 5 days. Anyone can present, and people with no previous experience of presenting are encouraged to make their debut. For some, even these kinds of events are too structured. Unconferences either online or virtual, increasingly adopt "space technology" (Owen, 2008), where no programme or agenda is created in advance. Instead, participants determine the priorities for themselves and then self-organise the best ways to explore issues and present their findings. Throughout unconferences, the "law of two feet applies": if participants become bored, they are free to leave, join, or start another discussion group.

These examples of teachers self-determining their professional needs and interests have profound implications for policy makers and senior leaders when considering issues of professional development. And they also confound our perceived notions of how professional practices best spread.

Musical Futures: A Case Study

Musical Futures (https://www.musicalfutures.org/) is "a movement to reshape music education, driven by teachers for teachers" (para. 1). It began life in 2003 as a small-scale action research project working in around 40 high schools in England. I was the original project leader, and now function as an adviser. Musical Futures' original mission was to find radical and innovative ways to re-shape teaching in order to enhance engagement in music. The way music is taught in many schools hasn't changed much in decades and remains disconnect-ted from young people's musical lives outside school. I know that it sounds faintly ridiculous to have to find ways to get young people engaged in their most

popular cultural activity during adolescence, but one only has to say the words "recorder" or "All Cows Eat Grass" to trigger a Pavlovian response in most adults. Built around the creation of teaching and learning strategies, which allow young people to play music with which they identify, in friendship groups, teachers began to see the power of enabling learners to shape their own learning. At the time of writing, the Musical Futures programme is operational in 10 countries, and the original 40 participating English schools have grown to 1700.

In 2013, we decided to run a pilot programme for teachers, offering training in voice and music technology. Our strategy for getting new professional practices to spread was fairly conventional: set up a small pilot; equip practitioners with new skills; refine and repeat; create materials and resources; publish then promote – and hope it gathers momentum.

Faced with an overwhelming demand from teachers for inclusion in the pilot, however, we set-up a parallel "co-pilot" to be delivered through social media. Our expectations were low – how would teachers feel the same sense of engagement that those receiving face-to-face training and regular follow-up support? Within two days, 200 schools from around the world had signed up to "Find Your Voice", agreeing to follow our project protocol: "Take. Use. Innovate. Share." We set up a blog, and a "sharing wall" (where documents and audio/video files could be up/downloaded and arranged for an experimental Twitter conversation). What happened next amazed us.

Before we'd given them anything to "take" – video footage from the first training event – co-pilot teachers were already online sharing their challenges, techniques and fixes. When the first videos did appear, teachers tried out the techniques, filmed themselves in the classroom, and then posted their efforts to the public sharing wall. The natural tendency might have been to share only their "best practices". However, teachers seemed more than willing to share the lessons which didn't go according to plan, and then have peers critique and collectively problem-solve. This seems counter-intuitive: why would a profession that practices "the secret business of teaching" and resists being observed in the classroom, appear more than happy to post videos of themselves struggling to master new approaches?

The de-privatising of their practices had two further unintended consequences. As the co-pilot program continued, the open nature led to one of the world's best exponents of beat-boxing, Shlomo, becoming aware of it and subsequently offering to provide video tutorials, record workshops with students and teachers, and to take part in the now weekly Twitter chats. Additionally, the students being filmed became aware of each other's efforts and spurred each other into sharing, too.

"We share who we are, we learn what we do"

In researching my book *OPEN: How We'll Work, Live & Learn In The Future* (2013), I identified six powerful motivations behind the rise of social learning: autonomy, immediacy; collegiality; playfulness; generosity; high-visibility. The success of the Musical Futures co-pilot reinforces some of these motivations:

Autonomy: When the online group began to determine the course of the co-pilot, our position shifted from project leaders to moderators. When we attempted a complete withdrawal from steering the project, however, it became clear that some learning stimulation was needed. Someone needed to brief the trainers, or organise the agenda for the Twitter conversations, and although some delegation was possible, it was evident that busy practitioners welcomed some light-touch steering.

Immediacy: Because of time differences, a Twitter chat in the evening in the UK was taking place the following morning in Australia. On one notable occasion a video, posted by a UK teacher and discussed by the group, was immediately taken into school by an Australian teacher to show to his students. A subsequent video response by the Australian students was uploaded to the sharing wall, and analysed by the UK group before that evening chat had ended. It was moments like this that prompted one contributor to declare "this is the best staff-room EVER!" What Lillian Katz has termed "horizontal relevance" – being able to apply learning immediately to problems in hand – is commonplace in self-determined and social learning alike.

Generosity: The kindness of strangers was evidenced throughout the initiative ("when that didn't work for me, I tried x…"). This generosity and trust – the willingness to take time to help those who were struggling – seemed to elevate "reputational capital" above subject expertise.

High-Visibility: While sharing each other's work became the driving force of the initiative, it could have been carried out in a more secure, private space. Making almost everything highly visible (a private Facebook group was created, so that teachers could discuss school and profession-related problems without fear of censure) not only motivated students and teachers alike, it also attracted others to the programme. Shlomo was a high-profile case in point, but many others, not signed-up to the pilot, came to "lurk" in Twitter conversations.

Although the co-pilot has ended, the lessons learned in the experiment will inform the direction of Musical Futures for the foreseeable future. Not only will all training be scaffolded with less direction and more "crowdsourcing", the route to scaling-up new professional practices has irrevocably shifted away from "refine and release" with a small initial pilot cohort, to engaging all practitioners who are willing to adopt Google®'s philosophy of fail fast and iterate.

Lessons Learned

In 1948 when 3M instigated its much-copied 15% "free time" for employees to pursue their own interests, it made the entitlement available to all staff, not just to its lead scientists. Similarly, the social learning seen in TeachMeets and through a plethora of social media platforms offers a glimpse of more democratic, less hierarchical, professional learning. Though not by any means widespread, this flattening of learning has the potential to reverse decades of increasing employee disengagement and loss of autonomy. It also presents a paradox to company learning officers. Some of the most innovative companies in the world are dispensing with formal training programmes and are adopting strategies that allow employees the "right to roam" in their professional learning. How can knowledge be managed in such an environment? How can the intellectual capital of an organisation be sustained when workers are collaborating with potential competitors?

The overwhelming message of the web 2.0 era is that knowledge cannot be constrained, so adopting open source principles and freeing intellectual property is an act of pragmatism, as much as altruism. The advantage gained in keeping a secret isn't worth the effort an6 more, because commercial value no longer resides in knowledge. It's in the application of that knowledge, which is only fully realised through sharing.

This opening up of professional knowledge demands that practitioners (in both commercial and public sectors) become responsible for their own learning and are thus required to chart their own course. It could be argued that educators are uniquely positioned to benefit from these autonomous learning opportunities. They are, after all, supposed to know how learning works and should be at the vanguard of applying heutagogic principles to maximum effect in their own professional practice.

However, educators are constrained, as never before, by their political masters. The impact of high-stakes accountability, in recent years, has imposed compliance over creativity. It may be that a globally and socially connected network of peer learners, enthused by, and committed to, sharing all that they know, may have sufficient power to reduce the voices of policy makers into little more than "noises off". In this way, teachers practising self-determined peer learning may be viewed, not just as applying an effective alternative to conventional predetermined staff development, but more as demonstrating an act of professional emancipation.

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10 PROFESSIONAL PERFORMANCE APPRAISALS:

From Ticking the Boxes to Heutagogy

Jill Ridden

Summary

In my role as a Resource Teacher of Learning and Behaviour (RTLB), I work with teachers to provide programmes for children with learning and behavioural difficulties. My colleagues and I are required to undergo an annual process for appraisal and re-registration, and as part of the process we must also consider the strategic direction of the education service and Tätaiako (Maori learners' needs). New Zealand teachers are appraised annually on how they meet twelve registered teacher criteria; each year a teacher is appraised on four of these criteria. Re-registration is required every three years, at which time teachers must provide a portfolio of evidence demonstrating how criteria have been met. If criteria are met, the portfolio is signed off by a senior management person in the school. The appraisal is then used to complete registration documentation. The process is important in the career of a teacher; however, it is really a box-ticking exercise that has no real personal professional development outcomes. Within my organization, we used the appraisal process as a learning opportunity for both individuals and the RTLB group. Using a reflective practitioner approach, we established a Community of Practice (CoP) and used information gained from the CoP to develop a more effective direction for how we work, the forms we used, and how we reported our work. These improvements were then used as part of our required portfolio of evidence of achievement for the four appraisal criteria.

Our Journey on the Appraisal and Registration Process

In New Zealand, teachers are appraised on how they meet specific teacher registration criteria. The twelve criteria provide standards that all teachers in New Zealand must meet to both gain and then retain registration.

There are three levels of registration. Firstly, there are *provisionally registered teachers* who are newly qualified teachers and who don't yet have enough teaching experience to meet all of the registered teacher criteria. These teachers need to complete a broad-based program of induction and mentoring over two years to gain full registration. Secondly, there are *teachers who are registered subject to confirmation*. These are usually experienced teachers who have previously met all of the registered teacher criteria, but who haven't had sufficient recent teaching experience in an approved setting, or whose teaching has been mostly part-time or casual; in these cases a meaningful appraisal has not been possible. Finally, *fully registered teachers* are experienced teachers who have completed satisfactory recent teaching experience and who have recently been assessed as meeting all of the registered teacher criteria. Teachers are assessed by the school's senior managers, and registration is required every three years.

Appraisal Criteria

There are twelve appraisal criteria, five based around professional relationships and professional values, and seven based around professional knowledge in practice. Each criteria has one or more descriptors to make the expectations of the criterion in practice more explicit. As registration is required every three years, most schools usually appraise four criteria per year. Teachers are required to provide a portfolio of evidence that shows how they meet the criteria. The portfolio is signed off by the schools senior management each year and then used to complete registration documentation.

RTLB and the Appraisal Process

As a Resource Teacher of Learning and Behaviour (RTLB), I am required to undertake this appraisal process as well as consider the strategic direction of the service and of Tātaiako. Tātaiako is a cultural competence for teachers of Māori learners and is designed to help teachers focus on how to support Māori learners in achieving their educational potential and in helping learners enjoy education achievement as Māori.

Serving on the RTLB team are itinerant specialist teachers working from years 0-10 with teachers who identify children with learning and/or behavioural difficulties. There are seven guiding principles of RTLB practice:

- inclusive teaching;
- culturally responsive practice;
- ecological approach;
- collaborative and seamless models of service;
- strengths-based;
- reflective; and
- evidence-based.

Children referred to RTLB are generally two to three years developmentally below what is expected for the age of the learner. Problem behaviour is identified, based on the frequency and duration of the behaviour and the effect the behaviour has on learning opportunities for the student.

The RTLB role puts me in a privileged position, as I work on a referral basis with teachers who generally want to make a difference in the lives of the students they teach. This role enables me to employ heutagogical principles, in both my daily work and in appraisals. I develop programmes together with the teachers, and we use our knowledge to make a difference for the students with whom we are working. We monitor the success of our programs and make adaptations if necessary. Through these programs, there is potential for a great deal of learning and professional development for the teachers with whom I work.

Unfortunately the prescribed appraisal system is very limited in its provision of learning opportunities. The process of completing the required forms is not at all motivating and hence, is not always taken seriously. Rather, it is seen as important to "play the game", choose safely so the evidence meets the requirements, and to avoid "rocking the boat." As a result, the process does not allow for individual professional development needs to be addressed in any great depth, or for any new learning to be achieved.

My experience of the appraisal system was that, at the last minute, I would write a goal, and share it with my appraisal partner. I then forgot about it until I found time to look at the evidence I had supposedly collected throughout the year. I then spent the time backfilling the portfolio with work from the year. I was easily able to show evidence of my work, but there was no personal development that would improve my work as an RTLB. I was simply going through the process of "ticking the boxes."

From a heutagogical point of view (Hase & Kenyon, 2013 and Chapter 1 of this book), this process is problematic in itself as it is very prescriptive. Most teachers gather evidence in a very narrow way, just as I did, without incorporating aspects of double-loop learning and reflection. It appears that the appraisal process is in conflict with the aim of teachers being able to develop their individual skills through further professional development.

Using Communities of Practice (CoPs) to Bring Heutagogy to the Process

When talking to Stewart Hase, I saw an opportunity to further develop myself professionally using heutagogical approaches in my practice, and also within the twelve registration criteria. As part of the appraisal and registration process and after discussion with a colleague, we decided to look more closely at the RTLB referral pathway. We began a Community of Practice (CoP) within our wider team, to enable us to consider the ways different team members work through the RTLB pathway. We could then develop an improved way of working, using the resources gained from the CoP. This information would then be used as part of our required portfolio of evidence for appraisal/registration. More importantly, it would help us develop our practice so that we could better meet the needs of the teachers and students with whom we worked. There was also an opportunity for this knowledge to be shared at RTLB management level to further develop cluster-wide processes in the referral pathway.

The pathway required to be followed by all RTLB is:

1. the referral;
2. initial meeting;
3. data gathering;
4. analysis;
5. goal setting;

6. planning;
7. intervention;
8. monitoring;
9. review; and
10. closure.

These steps aim to ensure that the reason for referrals are well understood, and that everyone involved understands how the service works and how they will be involved in the process. Appropriate data is then gathered and analysed, and a programme is established.

Our CoP was organised around each of these aspects of the RTLB pathway. The referral aspect of the pathway was prescribed by management, in order to ensure a consistent format across the cluster, and so we started the CoP at the *initial meeting stage*. We invited all twenty of our colleagues throughout the RTLB cluster. Teachers who came to the CoP were asked to bring a copy of the forms they used for this aspect of the pathway, to discuss the form and structures they used, and to give a copy to each of the CoP members. The meetings were one hour, starting and ending on time, and with each member having a time limit to share his or her paper work. The allotted time for each person was decided once we knew how many members would be attending each meeting. The meetings were run tightly in terms of time for sharing, thus providing an opportunity for all to share their ideas and so that any one person would not dominate the discussions.

To increase the opportunity for people to participate, meetings were held in different venues within the cluster, as we serve a very large geographical area. As we moved through the pathway we generally had ten to twelve members at each CoP meeting, and group members would change depending on where we held the meetings rather than on the willingness of the members to attend. This approach was seen as being very useful for each participant. We continued this way with each aspect of the pathway, monthly, for almost twelve months.

After each CoP meeting, a colleague and I would reflect closely on what we needed to do to make our work more effective and to find any gaps in our service delivery. Having listened to the way our professional colleagues worked and why they did what they did, and by having the forms and paper work available, we were able to look at the variety of approaches being used and could identify clear areas to discuss and reflect upon. This reflective process enabled us to begin developing and changing the direction of how we worked, especially in terms of the forms we were using, and how we reported our work to teachers and parents.

We then met a number of times to examine how we could develop and enhance the practices that we were using, in order to provide a more rigorous way of working and to work smarter in each step in the pathway. We would take our individual forms and look at them alongside forms from other RTLBs. Then we would develop our approach, test it, and then meet again to consider further changes that could further enhance our practice. This seemed to us to be in accord with the reflective practitioner model described by Don Schön (1983), and

it also incorporated the double loop learning that Blaschke (2012) sees as central to lifelong learning.

To show how our practice had changed and developed using this process, we decided that we needed to provide evidence of that change to each other, which required us to share our work and take on the ideas of the other professionals. Because my colleague and I had developed a genuine professional trust, we were able to provide constructive feedback to each other. Quite often we did not agree with each other, but we were always able to see the strength of what the other person had chosen to do and why the person had done what had been done. We always looked forward to these discussions, and we were always prepared for the rigorous conversations we had.

One reflection we regularly discussed, was the lost opportunities we had as a cluster group. There was always a lack of time to discuss issues in whole team meetings, and more often than not, prescriptive ways of working within the pathway were developed. This did not deter us however, as we continued to develop our practice and reflect upon it. Through the reflective process, we were able to continue developing our daily practice by looking through a different lens and by revisiting the first part of our learning loop to see if the resulting ideas were actually the best we could develop. We were able to challenge ourselves by revisiting, confirming or otherwise, making subtle changes and then trying them out in the field. We asked ourselves, "What would be best practice in particular situations?" We looked for New Zealand-based research that supported our thoughts or challenged the way we work – with the aim of being to ensure best practices. After our CoP meetings, momentum would gather as RTLB teachers talked with their colleagues about how they were finding a variety of ways of working, and this in turn allowed them to look more closely at their practices.

How does this link to our appraisal? It was interesting to note that we had to point out the value of our CoP, and that our appraisal partners were unable to see how we had further developed from the initial meeting. We felt that while this process ticked the boxes for us in our appraisal folder, it was not seen by others as affirming our enhanced development as professional practitioners. Even so, we wanted to move this approach forward so that more people could benefit from a heutagogical type of development approach. This would allow others to take their individual professional practice to a deeper, research-based level, to enhance their practice, and thus improve learning outcomes for our teachers and students.

Currently our manager has prescribed that there are to be focus groups linked to our cluster strategic plan. We are required to choose one of the groups and develop a Community of Practice with the team members. While this is important for the wider team, it has lost the opportunity for RTLB staff to develop their professional practice in an individual way. This means that all I have to do now is to attend and provide a reading on the topic. There is no opportunity to be involved in an area chosen by me that would help me develop my practice more effectively; it merely allows me to tick another box for my appraisal folder. A further missed opportunity.

Issues

Heutagogy requires flexibility for each learner to develop professionally in areas of personal interest and need. As a result, heutagogical practices can be very difficult to manage. In my RTLB cluster we are itinerant across a large geographical region. I believe that there is a perception that if we have prescriptive ways of working, then there will be a greater consistency of approach which, in turn, is easier to report. While this may be the case, it does not allow for individual development or improvement in professional practice - an opportunity for further development is being lost. There is an appraisal/professional development/ registration misfit that is counter-productive to learning.

There is a need for the Ministry of Education to understand that we want teachers who are learners. Lip service is paid to this ethos, but the fact that we must meet registered teacher criteria usually in a prescriptive way, does not often allow individual learning and development to take place. Moreover, as part of their professional development, many teachers are now required to complete an inquiry, which is usually a school-wide development run by the school management. The inquiry requires the teacher to be involved at what can be a very superficial level and hence can be perceived by some teachers as the "daily dose" of learning that you have - whether you need it or not..

The way education authorities have interwoven professional development and the registration criteria causes teachers to tick off the boxes but not necessarily improve their practice. While I acknowledge there may be some professional learning using this approach, teachers generally do not have the time to develop reflective practice and double loop learning as a result of what they find. We are very time poor when it comes to personal development in education settings, and unfortunately individual professional development is not seen as a priority.

Lessons Learned

Individuals have to be very strong professionally to *work* in a heutagogical way when managed in a very prescriptive way. It means individual satisfaction in learning is possible if you are prepared to take the plunge, but the current culture of education management can be a significant barrier. Using a CoP has aided our practice, especially in helping us work smarter and better link the RTLB pathway. In turn, this has resulted in improve outcomes for the teachers and students with whom we work. This has taken a lot of time and effort but has allowed us to apply heutagogical principles in our daily work.

Working with a like-minded colleague allows robust discussion to take place and challenges your professional ideas and thoughts. This can only happen if there is a professional trust present, and the working relationship is based on a mutual understanding; of the desired outcomes: this cannot happen when being driven by a prescribed process.

The better approach is possible if it is supported by senior management and if you consider the requirements of the educational institution you work for,

include teacher registration, and use these requirements to inform your professional development aspirations. If you work in an organisation where personal professional development is expected and valued – and is financed – true personal heutagogical development can happen. This kind of development must be clearly linked to requirements and not merely be an 'extra'. Such an approach can be used for appraisal and teacher registration, and therefore can enhance both teaching and learning.

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11 CREATING LEARNING LEGACIES USING BLOGS

Robert Schuetz

Summary

There is little doubt that sharing thoughts in writing creates opportunities for deeper learning and understanding (Ciotti, n.d.). Blogs provide educators with a pathway to reflection, relevance, and collaboration. Even though eighty percent of all educators use social media tools, fewer than five percent maintain a blog. However, blogging is quickly becoming a popular method for "do-it-yourself" professional learning. In this age of digitally-acquired knowledge, writing a blog may be one of the best ways to demonstrate and share self-directed learning. Shouldn't each educational stakeholder strive to leave a legacy of his or her learning? What are the features and practices that make blogs such a popular and supportive tool for life-wide and lifelong learning? Why are blogs ideal for synthesizing, recording, and preserving one's legacy of learning? This chapter addresses the need for creating learning legacies and demonstrates how the use of blogs can support self-determined learning and reflective practice.

Who Is Telling Your Story?

By definition, a person's legacy is a monetary or property gift that has been handed down to others in the form of a trust or will. Starting a legacy, can also include anything handed down from the past. Can, or should, our knowledge, thoughts, and experiences be shared with others, present and future? Undoubtedly yes, but where do learners keep the insights, artifacts, and mementos of their learning legacy?

Figure 11.1. The family refrigerator door

My active family of six includes two professional educators and four school-age children. With all of us immersed in learning and school, our refrigerator doors are constantly decorated with pictures, awards, report cards, and notes (Figure 11.1). The fireplace mantel, underbed bins, and basement shelves are final resting places for pinch pots, self-portraits, woodshop projects, storyboards, and a wide array of artifacts from our learning. These representations of academic achievement also serve as totems for our learning legacy. Admittedly, for most of us, the shelf life and impact of these analog artifacts is fairly limited. However, we now live in a digital age where ideas and information are shared cheaply and readily across a world-wide

web of social networks. The entirety of our history, or our legacies, if you will, are shared through the telling of stories. In this age of living in the cloud (Cloud computing, 2014), *who is telling your story, and where is it archived?*

Reflections at the Lake

During my younger years, I would watch my Grandpa sitting for hours on an old picnic bench in the front yard of our Lake Maud, USA, retreat (Figure 11.2). He would sip on a cold Old Style beer, watch boats out on the lake, listen to Buck Owens on country music radio, and seemingly "tune-out" the noise of everyday life. To me, this seemed like a boring way to spend summer afternoons in north-west Minnesota.

Figure 11.2. At the lake

Later, I came to realize the lack of external activity belied the inner dialogue that he was having. He seemed deep in thought, but what was he really thinking about? I can't be completely certain because he passed away before I was able to work up enough courage to ask him about his daily ritual of reflective thought.

Now, as a middle-aged man, I have come to recognize my affinity for the outdoors, and like my grandfather, I am at peace with the world when I am near water. I have developed a fondness for fishing, but not for the reasons many might think. Sure, there is the anticipation of preparing bait and tackle, the excitement of the catch, and the satisfaction of releasing the prize fish. Fishing, as it turns out, also gives me time to relax, and go deeper into reflective thought. Grandpa Townsend wasn't bored or lazy, his many hours engaged in reflection catalogued his experiential learning and provided fuel for additional growth. At the onset of ninety, my grandfather was learning to use Google® and social media to address his inquiry. Folks readily admired the eagerness of "Easy Pops" to learn new things.

So, while I patiently wait on this lakeshore for the next strike from a largemouth bass, I sit and reflect. I think about God's natural wonders, think about family

and friends, and think about mistakes I've made, think about my favorite books, movies, and sports. I think about my twenty-five years of teaching, coaching, and learning. And lately, as my friends and family age before my eyes, I have started to think about my own mortality and what I will be leaving to others. Both of my grandfathers were smart men, but only a few people know this since their legacy of learning is represented only through a few weathered photographs, fragmented scrapbooks, and brief conversations with close friends and relatives. It is the world's loss that more people weren't provided with the opportunity to learn from their grandfathers' intellect. Since we have the Internet at our disposal, we should not be leaving our learning legacy, nor our permanent, digital footprints to chance. Like many others in my personal learning network (PLN) (Richardson, 2013), I have chosen to document and share my learning story while I am coherent enough to enjoy it with others. Could we be hedging the bets of immortality by recording our thoughts, feelings, and experiences online?

In 1997, John Barger, when describing his site called Robot Wisdom, first coined the term *weblog*. Two years later, Peter Merholz shortened this term to *blog*. Evan Williams, a co-founder of Pyra Labs (later Blogger), was the first to use the term blog as a verb (Waters, 2010).

According to Hood (2013):

- In less than twenty years, nearly seven million people now blog on blogging sites.
- More than 50% of these bloggers are between the ages of 21 and 35, with the majority of them being women.
- The Internet is currently home to more than one hundred sixty million blogs.
- Five hundred million people are reading more than fifteen billion blog pages each month.
- Better than 80% of Fortune 500 companies believe that blogs are essential to their company's earnings.
- More than 75% of all Internet users read blogs.

I wrote my first blog post in *Nocking the Arrow* (rtschuetz.blogspot.com), on March 10, 2012. More than 113 posts and 125,000 page views later, the practice of blogging feeds and shares my personal and professional learning like nothing else. Like fishing, writing blog posts has provided me with countless hours of reflection and deeper understanding. I believe every person deserves to have his or her story and contributions to learning preserved in a digital archive. I also believe that a blog is the perfect tool to create and share a legacy of learning.

Why are Blogs Beneficial to Learning?

Tom Whitby (2014), writing for Edutopia (www.edutopia.org), asked, "Do educators really need blog posts?" He suggests that relevance and authenticity are just two of many benefits to educators who share their teaching and learning insights in blog posts. What are some of the other educational benefits of blogs? According to Whitby (2014), blogs:

- open doors to dialogue and discussion about any topic of interest to the learner.
- raise performance expectations for the learner.
- give the learner a voice, and also counteract isolation.
- improve writing skill and creative expression.
- provide frequent opportunities for deeper, double-loop learning, and reflection.
- help bring global perspectives closer to local learning.
- support both the processes and products of personalized learning
- provide practice with digital citizenship and digital literacies.
- extend the learning time and space of traditional learning environments.
- allow 24/7 learning opportunities supporting a variety of learning styles.

The practice of blogging supports self-directed learning by fostering inquiry, self-assessment, and frequent reflection of personal learning goals. Probing questions and complex problems frequently become topics for blog posts. Thorough research and verification of information are two results from the higher expectations associated with self-publishing. Comments and conversation widen one's perspective as a blog post becomes a source for other learners. This reciprocal learning effect is an important reason why publishing a blog can become so personally enriching, while simultaneously supportive to communities of learners.

How to Get Started with a Blog?

Anyone who can create an electronic document, such as a Word® document, can create a blog post. Blogs are free, easy to create, easy to maintain, and require no programming experience or technical skills. The first step is to identify a concept and a purpose for the blog. As with *digital portfolios* (Barrett, 2014) built with other tools, blogs can be *process* (conversation) focused, *product* (presentation) focused, or a *hybrid model* that incorporates both of these facets of publishing. I use the hybrid model for my personal/ professional learning blog, Nocking the Arrow (Figure 11.3). The main feed, or body, of the blog contains a chronological stream containing my conversations and reflective thoughts. Subsequent pages contain demonstrated competencies, artifacts of my learning, and research supporting my professional growth.

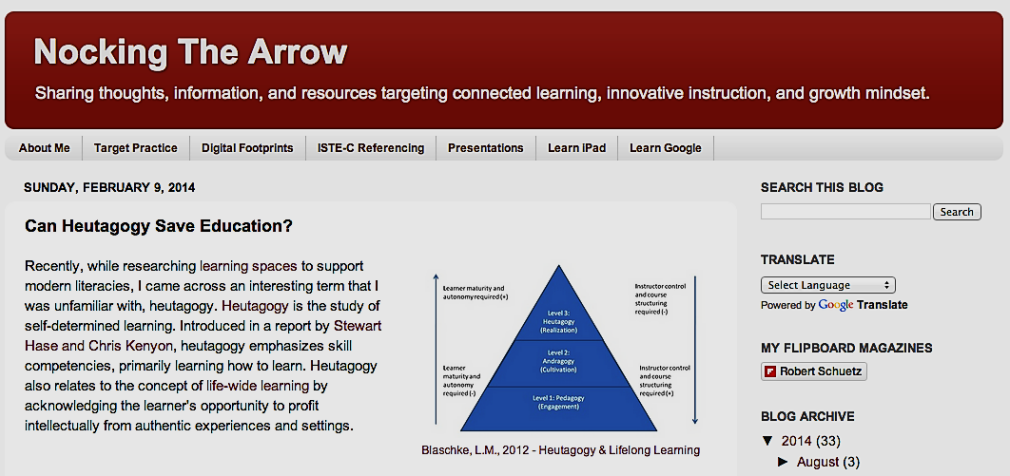

Figure 11.3. Nocking the Arrow blog

One of the nice features of blogs is posts can be *tagged* with keywords, making them easy to sort and search, while pages can be *labelled*, thus making them excellent repositories for categorized subjects or themes (Rosenthal Tolisano, 2014). Taking some time and putting thought into creating the title and description for your blog is an essential, creative step. The title will go a long way in attracting the type of readers who will benefit and actively engage with your blog. Use of social media and search engines to find interesting blogs to read and follow is also a good place to start. Teach-100 (teach.com/teach100) provides a ranking of the world's top education blogs. You can subscribe to your favorites and start making mental notes of the features, designs, and content that appeal to your purpose and taste (How to Start a Blog, 2014).

There are several popular blogging platforms (blog-services-review.toptenreviews.com/) available to choose from. These include:

- WordPress (learn.wordpress.com/get-started)
- Blogger™ (www.blogger.com)
- Tumblr (www.tumblr.com)
- Weebly (education.weebly.com)

Knowing your skill level and the comparable features of these blogging products will help you in making an educated choice for your blog platform. Blogger™ made sense for me because of its ease of use and because nearly all of my cloud-based material resides in Google Drive™. Blogger™ also allows me to create and publish posts from any web-connected device.

After choosing the blog platform, the next steps would include creating an account, establishing a user profile, and then starting to write. Be sure to take time to become familiar with the user preferences, or site settings, associated with the blogging platform. For instance, saving is different than publishing to the web. Typically, I will keep a working tab and a preview tab open simultaneously. Even though Blogger™, like Google Docs™, will *autosave* every several seconds, I

frequently save my work, and then refresh my preview screen to see how the finished product will look once I publish. More than 75% of internet users access their favorite information from a mobile device. This is why immediately after I publish a post, I will review it on my smartphone and tablet to ensure that the layout and spacing is conducive to the mobile reader.

Will your posts be public or restricted to a smaller, specified audience? Although I am believer in the benefits of total transparency in learning and communication, this practice of open sharing to a worldwide audience is an intimidating leap for some people. Most blogging products allow the publisher to expand or restrict both viewers and collaborators. In formal educational settings, one consideration is the age of the students contributing to a blog. If you are considering creating a classroom blog with younger students, extra care should be taken to protect their personal identities (Christensen, 2014). With ease of set up and built in securities for students, Edublogs (edublogs.org) is an excellent platform for classroom blogs. Popular blogger, Richard Byrne (2013), shares many terrific samples in this post: 40+ Examples of School and Classroom Blogs, published in *Free Technology for Teachers*.

Will you allow comments on your posts? Comments have the power to turn the digital reading experience into a collaborative learning experience with the potential for unique global perspectives (Schuetz, 2014). However, not everyone has the same moral compass or digital responsibility as you. If you allow comments you should moderate them for more control over what appears on your blog site. In short, start simply and controlled, and you can open things up and take more creative risks as your confidence with blogs grows (Cassidy, 2011).

As you become more comfortable with the blogging tools, you can customize page templates to your taste. Modifications can include changes to colors, page layout, and type fonts. Incorporating other types of media can help break up blocks of text while also adding visual appeal and enriching information to your posts. Most blogging platforms allow the user to embed photos, video, and graphics into the blog post. Widgets can also be incorporated into the blog (Schroeder, 2007). Calendars, social media buttons, search windows, and maps are examples of widgets that can make the blog more engaging and interactive for the reader (Leeman, 2014).

If generating page traffic and personal branding are important to you, then you should consider purchasing a domain name for your blog (How to Register a Domain Name for a Blog, 2014). This will make the blog easier to identify in search engines, and more easily associated with you or your brand. It is possible to earn money through your blog. Direct advertising and indirect marketing of other products such as books, courses, or learning materials are two ways bloggers earn income. If this is a consideration for you, be sure to thoroughly research the content ownership details for your chosen blogging platform.

Lessons Learned

As our lives continue to migrate from the analog world to the digital world, many people may want to record and share their life stories, as well as, their learning legacies. Blogs are transforming learning and education. Blogs help us tell our story, engage in reflective thought, and connect with others around the world. It is predicted that during the next ten years, there will be an explosion in self-publishing, personal learning, and freelance employment opportunities. Blogs, aside from their learning value, also allow users to participate in a digitally connected world economy. Stephen Covey (2004), author of *The 7 Habits of Highly Effective People*, asks us first, to be proactive, and second, to begin with the end in mind. Writing a blog proactively prepares us for our web-connected future while also preserving and sharing our legacies of learning for others to follow.

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Further Resources

The State of Educational Blogging 2013 - The Edublogger, Sue Waters; http://theedublogger.com/2013/08/08/the-state-of-educational-blogging-2013/

Blogging, Who Should and Why - My Island View, Tom Whitby: http://tomwhitby.wordpress.com/2014/03/24/blogging-who-should-and-why/

Start Your Teaching Blog; Resources, Advice & Examples - Edutopia, Matt Davis: http://www.edutopia.org/blog/start-teacher-blog-tips-resources-matt-davis

Five Reasons Your Students Should Blog - The Principal of Change, George Couros: http://georgecouros.ca/blog/archives/3721

Blogging Resources for Teachers - Center for Teaching Quality, Bill Ferriter: http://www.teachingquality.org/content/blogging-resources-classroom-teachers

12 HEUTAGOGY AND THE IMPACT ON ADULT LEARNING IN HIGHER EDUCATION

Denise Hexom

Summary

The revolution in our understanding of how both children and adults are now learning is dramatically affecting current thought on delivery systems of knowledge and skills at the university level. "Stand and deliver" or "one size fits all" is no longer relevant or appropriate for the generation of students we are now teaching, nor will it meet the learning preferences of generations to come. Innovation in online, hybrid, and face-to-face teaching and learning has exploded to meet the needs of savvy, technologically astute learners. However, the skill set of faculty members, in terms of technology, is often lacking and lags far behind what is needed to teach their students effectively and in a meaningful manner. It is not only the lack of technological skills but also the need for a new and inspiring mindset, which supports diverse thinking, alternative delivery systems, and a self-determined course of study (Hexom & Marlaire, 2013) that is missing. Today's universities are changing, but will the changes be revolutionary enough to support innovation in teaching and learning? Or will the changes be only cosmetic in nature and designed to sustain the bricks-and–mortar institutions of the past?

Introduction

In a complex and rapidly changing world, it is critically important to engage in debate, decision-making, new knowledge creation, and action for change (Ashton & Newman, 2006). Our position is that in order for change to occur at the university level, the change must begin with the faculty. How can staff embrace a new way of thinking to reflect a more heutagogical or self-determined approach to student learning? Do they have an open mindset about their own learning (Dweck, 2006) or are they mired in believing a pedagogical approach to student learning is the only feasible option? Our research began in 2012 in the department of special education with twenty-one full time faculty serving 4,400 students in our programs across 27 campuses. Our investigation has produced both quantitative and qualitative data, which were surprising. One finding was that age did not determine the skillset or mindset of the faculty members. In this chapter, we summarize our findings, share lessons learned, and suggest the resources that are needed if we are to support, encourage, and sustain heutagogy as a viable option for learning. We also need to redefine the knowledge, skills, and dispositions that our faculty members must embrace if colleges and universities are to be current, relevant, and engaging.

Using Technology for Self-determined Learning

Changing an organization's perspectives on ways to approach decision-making is like trying to resurrect the Titanic. The traditional model of decision making in institutions of higher education is usually top-down, or done in silos with little

interaction or collaboration with others. When faculty members are allowed to make their own decisions about what they will learn, how they will learn, and how they will assess what they have learned, it is disconcerting and often unnerving to them.

Initially, in our department of special education, faculty believed they would be forced to use technology (iPads) in a specified format for a specific result or purpose. When they began to understand that there were no restrictions, parameters, or guidelines for implementing technology and that they would *be in charge of their own learning, teaching, and assessing*, they were skeptical. However, as they began to develop their own plans for learning a new tool, a sense of control and ownership began to surface. One professor stated "technology is a waste of time and I will never use it." Over the course of the two years, that professor became very attached to his iPad and regularly shared new apps with other faculty members. Another professor saw no benefit to learning to use the iPad for personal and professional use but within a few months, the iPad became her new *best* friend.

As the project concluded, the consensus was they could not live without their iPads and wanted more time to share with one another the nifty and often time-saving applications they were using. Another faculty member created a form that could be used to review applications which could be used in teaching our courses, and applications which could be used in our classroom where students were struggling in learning to read, write, or speak. The next steps in our journey of discovery will be to plan, implement, and assess how our department can use a heutagogical approach to teaching, guiding, and facilitating the learning of our staff who are seeking credentials to teach students with disabilities. Learning about heutagogy and the positive impact it can have on adult learning and creating a cohesive high functioning team caused me to ponder and reflect on what I learned from the process and how I could transfer this new knowledge to new situations.

Lessons Learned

Three years ago, I was searching for a theoretical basis to support my gut feeling about creating a professional environment that entrusts its members with the ability to determine what they want to learn, how they want to learn, and how they measure their progress over time. I reviewed adult learning theory, pedagogy, andragogy, and a whole host of other research, and in doing so I came across the research of Stewart Hase and Chris Kenyon (2007) on heutagogy. I had never heard of heutagogy and wanted to learn more about it to ascertain if this was the theoretical basis I was seeking, and indeed it was. After immersing myself and my colleagues within this new framework, we decided to determine if the theory would truly allow us the flexibility and nimbleness in our thinking and actions we definitely needed. Now, after the success of its use in our department, we have utilized the same processes and strategies in other venues, including other professional meetings, home and family, and our own interests and passions.

Lesson #1 -
A mindset which seeks growth is crucial to believing we need to be involved in the design of assessment, self-diagnosis, and application of knowledge

As people climb the organizational ladder, they sometimes think there is only one way to solve problems, address issues, or behave. However, if we are to become self-directed learners, we must believe it is the time and effort or growth mindset (Dweck, 2006) we put into accomplishing something, not just our innate abilities. One of our faculty members indicated she saw no advantage to using technology, yet requested more training as other members of our department demonstrated their excitement and increased efficiency in grading assignments. Had she had a fixed mindset, (only innate ability) she would never have attempted to learn something new. However, with a growth mindset, she saw herself as needing to put the effort and time into learning how to use the iPad to become proficient in what she wanted to learn.

Regardless of our age, socio-economic status, or number of degrees held, maintaining a growth mindset ensures we will continue to skydive at 80, obtain a high school diploma at 60, challenge courses and graduate from college with honors at 17, or learn another language at 40. Because it is not intelligence that counts so much, but the amount of effort and time we put into learning something new. I love playing golf but I am not very adept at it. My granddaughter said, "You know, Nana, if you really want to be good at something you have to put 10,000 hours into it." Every time she comes over to our home she says, "Well, how many hours left now?" I am sad to report I am at 9,991 hours left to go. Hopefully, in the near future, I will be able to devote more time to improving my golf game.

Lesson #2 -
Believing in the capacity of others and in collaborative learning

Our university recently sought national and state accreditation for the school of education. This endeavor required thousands of hours of document production, creation of charts, graphs, and tables, and road trips throughout California to ensure all of our campuses had the knowledge and resources for this monumental task. One of the most important lessons I have learned through the process of implementing heutagogy is to believe in the capacity of others.

Our department wrote over 3,000 pages of documents for the visiting accreditation team. Initially, I tried to significantly influence the actions of others by devising a task chart with names and deliverables, not thinking about which tasks would appeal more to some than to others. As I learned more about heutagogy and began to appreciate the fact that everyone in our department had doctorates, had run large programs or school districts, had published numerous books and articles, and had tremendous talents and skills, I realized it was me who was constraining or restricting their capacity for innovation, project completion, and collaboration. By the end of our accreditation journey, we were a lean, mean, fine-tuned, machine, with all parts working in tandem, and doing the jobs we were best at and enjoyed.

Our department was the only one that met all criteria and passed accreditation without areas for improvement; in fact, one of the reviewers wants to join our team.

Lesson #3 -
Freedom equates to exploration and recognition of the emergent nature of learning

When we started our iPad initiative and it became apparent there were no externally imposed rules, expectations, or assessment, faculty members explored, investigated, and evaluated a wide variety of applications in which they were personally interested. At monthly meetings, time was set aside to share what they had learned and to teach one another how to use the applications.

Additionally, in our faculty community (social media) we uploaded evaluations of applications that could be used across programs for a variety of disabilities. Without limits or restrictions on exploration, faculty members were initially free to find applications that interested them on a personal level. Later, as they became more comfortable with their iPads, they reviewed and downloaded applications, which could help the students we were teaching to better meet the needs of the students. One of the first ones we had fun with was Angry BirdsTM (http://gamesappsfree.com/review/angry-birds-epic/) but we quickly graduated to:

- PagesTM (http://www.apple.com/mac/pages/),
- DropboxTM (www.dropbox.com),
- PandoraTM (www.Pandora.com),
- WebExTM (www.WebEx.com),
- SkypeTM (www.Skype.com),
- NewsstandTM (https://itunes.apple.com/us/genre/ios-newsstand/id6021?mt=8),
- PinterestTM (www.pinterest.com),
- Evernote TM (https://www.evernote.com) and
- iBooksTM (http://www.apple.com/search/?q=ibooks%20free&section=mac&geo=us)

to name a few.

Each month we continue to share new books, strategies, applications, music, YouTube™ (www.youtube.com), videos, and interests.

Lesson #4 –
Guidance versus control or identification of learning activities/ processes by the learner not just the chair of the department

This lesson is linked to Lesson #3. As we continued to determine our own learning, we were able to share our new learning with others. And as we toggled

between the role of teacher and student we gained new perspectives and appreciation for the opportunities we were afforded. I used a heutagogical approach by involving all members of the department in the design of new initiatives, by ensuring they determined where they themselves were in the process, and by supporting them as they ascertained how they were going to apply their new knowledge in other real life contexts (Hase & Kenyon, 2007).

As a result, a close knit professional learning community emerged in which decision-making, running meetings, and planning for future projects were ours. The more empowered our faculty became, the more we shared new ideas, thoughts, beliefs, feelings, strategies, and possibilities which previously remained undisclosed. While sitting in a recent school of education meeting, I happened to look at the members of our department who were busily taking notes on their iPads in contrast to others (not in our department) who were using yellow legal pads to record the proceedings. After the meeting we shared our perceptions by emailing our notes to one another, which were then synthesized and saved in a desktop folder for future reference.

Lesson #5 -
The power of individual and group learning

National University (www.nu.edu) was one of the first universities to invest in online learning. Currently, over 50% of our degrees and credentials are available online. We have recently found that the hybrid model of delivery is seen as highly desirable by both students and faculty. In this model students come to class one night a week for three hours; the rest of the week's instruction is then online. Most of these hybrids are also *flipped classrooms*, where students complete all of their readings, lectures, and assignments online, and then bring their questions to the professor, participate in group discussions and projects, present research and findings to their peers, and practice administering assessments, with professors guiding them through the process.

This face-to-face portion of the course is critical to ensure students not only understand the concepts and knowledge but can also apply this new learning to a variety of environments or situations. Without the group learning, discussions, demonstrations, and guidance, it is really difficult to assess exactly what our candidates actually learn.

Equally important is the individual learning that takes place at the candidate's pace and cognitive preference. Here I am using Sternberg's (2005) cognitive model *Successful Intelligences* – which states that we have preferences on how we approach learning. Some, such as doctors, scientists, mathematicians, and economists lean toward an analytical approach. Others, such as Bill Gates and Steve Jobs who took complex ideas and scaled them to be understood by the world, prefer to relate new learning to a practical situation. While others, such as architects, teachers, artists, playwrights, and poets, tend to enjoy the creative aspects of learning. As we continue to revise the plethora of courses in our department, we are viewing them

through our nascent heutagogical lens, which encourages engagement, self-confidence, and passion for what we are undertaking.

Lesson #6 –
A sense of accomplishment and the value of collaborative learning

When we determine our own learning and accomplish the tasks we delineated, there is an immense sense of accomplishment. This applies to both individual and group learning. As mentioned earlier, our university, recently went through state and national accreditation in order to continue to offer our credentials and programs and gain recognition for excellence. When the demanding process was over, our department surfaced as the best in the school of education with no stipulations or areas for improvement. We came together as a group, focused on the task at hand, changed roles, and demonstrated to others in the university, the power of teamwork and collaborative learning. We all took responsibilities for the task and credit for the accomplishment.

Since the accreditation team left, we have worked as a highly invigorated team to expand our programs to Nevada, created new credential programs approved by California Commission on Teacher Credentialing, developed a strategic plan of projects and initiatives, implemented a Book of the Month Club (we have read *Teaching as Leadership* by Steve Farr, 2010 and *Mindset* by Carol Dweck, 2006), and partnered with Long Island University and New York University to implement Sanford Harmony and Inspire programs in schools across America. However, we still have much work ahead of us in helping others to utilize heutagogy instead of pedagogy as we share knowledge with these new colleagues.

Lesson #7 –
Personalized training

We all know how we learn best. I was asked recently to make all of the brides-maids'' bouquets for the wedding of the daughter of one of my best friends. I had never done anything like that before but I had faith I could do it if I put my mind to it. I looked at books, talked with friends, but what worked best for me was watching YouTube videos of the process and practicing over and over again with artificial flowers. When the day came, another friend and I created all of the bouquets with fresh flowers, wrapped the stems in white satin ribbon, and secured them with white hatpins. When the bride saw the bouquets we had made, she said they were better than the one she was holding, which cost a lot of money.

In our university courses we are offering different pathways for candidates to demonstrate their knowledge, skills, and dispositions. In one of our courses, candidates have to read several research articles and synthesize the information they learned. How they do this is up to them – it can be a chart, Venn diagram, essay, pictorial representation, whatever they believe would demonstrate their understanding and application of research.

In the near future we will be looking at stackable courses which could lead to even more differentiation of learning based upon prior experience, expertise, and the training our students have completed. As ilearning, which focuses on technology and its impact on learning, continues to influence our decisions in higher education, the more we need to focus on various pathways or routes to ensure the individual student is entirely engaged in determining what she or he wants and needs to learn.

Lesson #8 –
Learning to learn

When I was a visiting educator in Denmark, I noticed that the children did not have playground staff to monitor their behavior, ensure they were following rules, and escort them to class when recess was over. Starting in the first week in kindergarten, children assumed responsibility for the other members of their four-person teams. The position of captain of the team rotated each week to a new team member. At four and five years of age, these children were checking backpacks to make sure everyone had his/her homework, they helped put on coats, made sure they lined up where they needed to be, and shared snacks or special treats with one another. They genuinely learned to care about one another. The principal told me, "We not only care about the mind of the child, we care about the heart as well."

The hub of the school was a classroom of children with significant disabilities. As general education classrooms were released for recess or for lunch, a barrage of children poured into this classroom to *play* with the others who were unable to go outside, walk, or in some cases, communicate. That did not prevent the children from reading stories, playing in the camping tent, making up plays with their puppets, and sharing their snacks with others in the classroom. The dispositions and skills that these students were experiencing taught them how to collaborate, appreciate and value each other, and engage in highly sophisticated interpersonal relationships.

In the United States we continue to spoon feed our children without providing them with opportunities to learn to value and appreciate the differences and the similarities in each other, and to practice and apply these skills throughout their education experience.

When I became a superintendent in Connecticut, we started a charter school in which students, grades 3-8, practically ran the school. They determined the colors of the school uniforms, mascot, mottos, special events, governance, and norms of behavior. We did not use textbooks but primary source documents, videos, biographies, guest speakers, and artifacts to immerse the students in learning. They each created their own individual learning plans, monitored their progress, and shared their successes with one another.

We taught them how to learn, how to understand different points of view, and what great readers and writers did; every student played an instrument, sang in the choir, and took art classes. They engaged in debates on a variety of topics including

eating *family style* rather than *cafeteria style* at lunch. They assumed roles of famous people in both United States and the world and portrayed them during an open house without notes or references. Rarely did a student miss school unless he or she was really sick. Students believed others would miss their contributions to the school, and that they would likewise miss learning from others.

Lesson #9 –
Different intelligences – different approach to learning

Even though our university prides itself on being one of the leaders in online education, with 27 campuses throughout California and Nevada, serving students in the United States, China, Japan, Europe, South America, and Africa, we have failed to examine and include the "process of learning" (Hase & Kenyon, 2001, p. 2) and have focused mainly on the content.

As Common Core State Standards are implemented in schools across America, how are we going to ensure our faculty staff have the capability and flexibility to create these new learning environments? If we wait much longer, it will be too late. When we continue to have students read boring chapters in textbooks, answer questions at the end of the chapter, take multiple choice exams, and write papers on content they no longer need to know, we are almost ensuring their failure. We must guarantee our staff have opportunities to practice innovative and novel approaches to dilemmas and situations; they must be nimble and flexible in responding to the different intelligences and learning styles of their students; they must believe all students can learn and may learn differently.

Staff must demonstrate that their classrooms will look nothing like those of yesterday with desks in rows and with the teacher behaving as the *sage on the stage*. Instead, these classrooms will be hubs of learning, facilitated by this new breed of teacher. I think teachers have been forced to use *scripted lessons* for so long, at least in California, that they have lost their own passion for learning, creativity, and enthusiasm for making a difference in the lives of their students.

We must guide them in imagining, dreaming, and wondering about what their classrooms could become; help them create those environments; and support and embolden them as they implement and assess what worked well and what did not. But first we must deal with our own classroom, whether online, face-to-face, or hybrid. We must break out of the old mold and embrace heutagogy as a promising and viable option that facilitates creative and innovative thinking, problem-solving, divergent and convergent approaches, and focuses on the humanness of learning (Hase & Kenyon, 2001).

Lesson #10 –
Learning is dynamic

Learning should be dynamic, alive, energizing, invigorating, and challenging at times, thus there is "the need for a *living* curriculum that is flexible and open to change as the leaner learns (Hase & Kenyon, 2007, p.115) When we have not participated and engaged in planning our learning it can be very frustrating.

My husband and his computer are enemies because the way he was taught to use technology is not the way he learns (which is visually). He needs guides to reinforce what he has learned, and lots and lots of practice to ensure he has mastered the skills. In contrast, I love technology because it makes sense to me intuitively (I used to work on car engines with my father when I was young), so exploring and figuring out how things work intrigue me and I am a tactile/ kinesthetic learner; when I do it I can usually remember it.

However, when my husband reads something, he rarely forgets it and can cite facts and events from around the world, which occurred several years ago. I, on the other hand, have to refer to notes and other reminders of what I read yesterday.

This can be applied to classrooms throughout the world. Children are stifled by the memorization of factoids rather than being stimulated and thrilled by challenging and inspiring opportunities to learn. I have a corporation that works with under-performing schools sanctioned in California by the No Child Left Behind Act of 2004.

In one of the high schools where we were conducting classroom observations, I struck up a conversation with a student on his way to an algebra class. I asked him why he was taking algebra as a senior and he said, "The teacher doesn't teach me so I can understand." I followed him into his class, unnoticed by the teacher. Much to my dismay, the teacher, from behind his newspaper, told students to look at the examples on the board and do the homework. Not once did he look up or attempt to explain any of the problems on the board. Needless to say, the teacher and I had a lengthy conversation after class.

When we do not have the strategies, knowledge, or skills to learn as we learn best, have ownership in that learning, or have teachers who believe in a *living* curriculum, learning often becomes a large and tedious task.

Next Steps

As we contemplated our next steps and vowed to recognize the significance of heutagogy, we determined we needed many more resources to guide and support our endeavors. Here is a list of documents and activities we will be designing, implementing, and gathering over the next few years:

1. Guidelines, training, and thinking about how to facilitate heutagogy in higher education, schools and districts, organizations, and corporations.
2. A network, blog, twitter, social media, or some other way of communicating with one another.
3. Forums and colloquiums where we can share and discuss in small groups our understandings – large conferences are based upon a pedagogical approach with little if any new learning occurring.
4. Examples, samples, models, and templates across all organizations of what worked in which environments.

Lessons Learned

I guess in my long tenure with education my enthusiasm has ebbed and flowed for the numerous theories affecting learning and teaching. I must say, heutagogy has awakened a sleeping giant within me and I am truly reinvigorated at the prospects of what lies ahead of us. We must be brave and push forward against the waves of apathy, control, and lack of understanding and embrace the naysayers with a heutagogical approach to solving the chasm that currently exists.

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Further Resources

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THE CURRICULUM

13 CULTIVATING CREATIVE APPROACHES TO LEARNING

Thomas Cochrane and Vickel Narayan

Summary

The 2014 New Media Consortium Horizon Report (Johnson, Becker, Estrada, & Freeman, 2014) highlights the growing ubiquity of social media in higher education. It also flags the low digital fluency of faculty as a significant challenge and impediment to adoption of social media and new technologies in education. This indicates that facilitating a culture shift in education requires not only a catalyst but also significant time. We have found the establishment and nurturing of communities of practice (COP) exploring mobile social media integration within the curriculum to be one way to achieve this change. From our experiences we have developed a simple framework for cultivating creative pedagogies that move the focus of teaching and learning from teacher-directed approaches towards student-directed heutagogy, using mobile social media as a catalyst. In this chapter we provide several examples of how this framework was used to establish COPs that have resulted in rethinking of higher education towards heutagogical approaches.

Introduction

In our roles as Academic Advisors, the authors of this chapter have a mandate for facilitating innovation in teaching and learning; we believe this involves cultivating significant cultural change within higher education. In our experience the majority of higher education lecturers we work with are still in a web 1.0 teaching paradigm that focuses upon teacher-directed content. We see our roles as stewards to move lecturers conceptions towards creative approaches, moving them along a continuum from teacher-directed pedagogy towards student-directed heutagogy. We illustrate this continuum in Table 13.1 below.

The default position of higher education focuses upon content delivery and a reliance upon summative exams and written essays that ultimately measure memory recall and student ability to follow a preset structure and format. This approach often leads to a disconnect between theory and situated or authentic practice, where real world variables and creative problem solving are required. This produces graduates without the real world skills that are needed for the twenty-first century.

Table 13.1: Post Web 2.0 Continuum

1995	2005	2013
Web 1.0	Web 2.0	Mobile
Teacher	Student	Collaboration
LMS	ePortfolio	Connectivism
Content delivery	Student-generated content	Creativity
Pedagogy	Andragogy	Student-generated contexts
		Heutagogy

Biggs (1999, 2003) argues strongly for constructive curriculum alignment – where course outcomes and graduate profiles need to be matched with appropriate course activities and assessment practices that effectively encourage and measure the learning objectives. However, for most existing courses a refocus upon creativity as a learning outcome requires a significant redesign of the curriculum.

Redesigning the curriculum for creative approaches involves redesigning course activities and assessments to focus upon authentic learning and on developing creativity and collaboration among students.

Laurillard (2001, 2012; Laurillard et al., 2013) has made the case for collaborative curriculum design for integrating technology into the curriculum. We believe that mobile social media is a powerful catalyst to enable conceptual shifts in teaching and learning (Kukulska-Hulme, 2010; Laurillard, 2007). The conundrum is how to achieve these conceptual shifts practically. Laurillard et al. (2013) argue for a theoretically-informed collaborative approach to technology-enhanced curriculum design: "To be able to adopt, adapt, and experiment with learning designs, teachers need a theory-informed way of representing the critical characteristics of good pedagogy as they discover how to optimize learning technologies" (p. 13). A typical approach in academia is for lecturers to design and evaluate teaching and learning activities and assessments using theoretical frameworks such as activity theory.

However we agree with Pachler et al. (2010) who critique activity theory as being too complex to implement, while focusing upon describing activity processes rather than focusing upon learning as transformation. What is needed for application across a wide range of learning contexts is a framework that guides lecturers to become reflective practitioners and to redesign creative activities and assessments within their curriculum context without requiring them to enroll in an educational technology professional development qualification in order to understand the complexities of various learning theories. In the following sections we explore how we approached a solution to this conundrum.

Creative Approaches to Learning

Creative approaches are concerned with a holistic approach to education, focusing upon the learner becoming part of a professional community, involving the dimensions of knowledge, performance, and that of establishing and forming their individual identities.

Within most fields of the arts, and design, there tends to be a clear acknowledgement of the interconnectedness and synergy between knowing, doing and being… To disconnect this ontological dimension from the epistemological and performative dimension leads to an impoverishment of the learning (and teaching) experiences.(Danvers, 2003, pp. 53-54)

In order to transform students into creative professionals, educators' need to focus upon ontological pedagogies that deal with the process of becoming active members of professional communities outside of the university realm, rather than pedagogies that focus upon knowledge transfer. This approach could also be extended to other fields beyond the creative industries and design, as critical engagement with new technologies including mobile social media grows into core twenty-first century literacy. We find the concept of learner-generated contexts (Bruns, 2007; Cook, 2007; Luckin et al., 2010) to be a useful frame for measuring a change towards creative pedagogies.

Mobile Social Media

The rapid rise of mobile social media ecosystems such as the iTunes® App store for iOS and Google Play™ for Android devices provides a vast array of options for user-generated content production, sharing and collaboration directly from the device that virtually all of our students now own. Almost any social media platform now has a companion mobile app, and many innovative social media platforms have a mobile-first focus (for example: Instagram, Vine, Vyclone, WhatsApp, Tumblr, Ingress, Bambuser, and Twitter).

Almost all of these mobile social media platforms are user customizable and support collaboration, making them ideal for use in creative and collaborative learning environments that do not require specialist computing or programming skills, and therefore can be used within a wide variety of educational contexts. The best examples of mobile social media utilize the unique features of mobile devices which include the portability and flexibility of the built-in media production capabilities of the camera, microphone, and speaker, the connectivity and communication capabilities, voice recognition, and the increasing range of contextual sensors such as: GPS, accelerometer, proximity detection, compass, gyroscope, multi-touch, and image recognition.

Some of the specifically unique scenarios where mobile social media can be leveraged for creative student-generated projects include the use of: QR codes, augmented reality, Twitter, Google® Plus communities, mobile movie production, and situated learning (Cochrane, 2011, 2012).

Framework

The framework that we have developed over many iterations of mobile social media projects is a multi-layered approach to encouraging and supporting the use of mobile devices that includes:

- establishing teacher communities of practice to learn about the affordances of mobile devices in relation to new modes of student learning;
- redesigning the curriculum in response to shifts in conceptions of teaching;
- employing students to support teachers in their learning of mobile technology;
- collaborating with ICT Services to develop the necessary infrastructure to enable mobile learning across the campus (e.g. wireless networks, flexible learning spaces, mobile presentation technologies).

The framework utilizes the unique affordances of mobile social media, that is, we focus upon what mobile devices are really good at doing rather than replicating what can be achieved on a laptop or desktop computer. Our mobile social media framework is essentially a mashup of concepts that we have found particularly useful to support the introduction of creative approaches via mobile social media.

These include: the concept of the Pedagogy-Andragogy-Heutagogy (PAH) continuum (Luckin, et al., 2010), and Puentedura's (2006) SAMR model (Substitution, Augmentation, Modification, Redefinition) of educational technology transformation. Both of these frameworks resonate with the Sternberg, Kaufman and Pretz (2002) view of creativity involving incrementation (or modification of a current idea) followed by re-initiation (or redefinition).

Using this framework we have designed and integrated the types of activities and pedagogies that support creativity and move beyond substitution towards redefinition, and move from teacher-directed pedagogy towards student-directed heutagogy. The implementation of the framework (Table 13.2) is supported by establishing communities of practice (COP) of department lecturers partnered with educational technologists, creating a team of first-response students as Learning And Teaching Technology Enablers or LATTEs (Frielick, Klein, & Probert, 2013), and working in partnership with the institution's IT department to create a wireless screen-mirroring infrastructure to enable mobile devices to become collaborative tools nicknamed MObile Airplay Screens, or MOAs (Cochrane & Withell, 2013).

Table 13.2: A Framework for Creative Pedagogies (Modified from Luckin et al., 2010)

	Pedagogy	**Andragogy**	**Heutagogy**
Activity Types	Content delivery Digital assessment Teacher-delivered content Teacher-defined projects	Teacher as guide Digital identity Student-generated content Student-negotiated teams	Teacher co-learner Digital presence Student-generated contexts Student-negotiated projects
Locus of control	Teacher	Student	Student
Cognition	Cognitive	Meta-cognitive	Epistemic
SAMR	Substitution & Augmentation Portfolio to eportfolio PowerPoint® on iPad® Focus on productivity Mobile device as personal digital assistant and consumption tool	Modification Reflection as VodCast Prezi on iPad® New forms of collaboration Mobile device as content creation and curation tool	Redefinition In situ reflections Presentations as dialogue with source material Community building Mobile device as collaborative tool
Creativity (Sternberg, Kaufman, & Pretz, 2012)	Reproduction	Incrementation	Re-initiation
Knowledge production	Subject understanding	Process negotiation	Context shaping
Self-perception	Learning about	Learning to become members of professional communities (outside of the university environment)	Active participation within the professional design community

Communities of Practice

Implementing our framework involves a collaborative partnership between educational technology experts and curriculum lecturers to explore the appropriate use of mobile social media to enhance a specific learning context. We see these partnerships as long term, mutually beneficial journeys for the participants.

Our role as educational technologists is described by Wenger et al. (2009; 2005) as *technology stewards* guiding each community of practice to make informed

choices about the integration of mobile social media into their curriculum. The glue or domain that holds these communities together is a shared interest in better learning outcomes for our students.

Keeping these communities of practice active and bringing on board other peripherally interested participants requires nurturing and social interaction that can often be facilitated across time and geography via the use of social media platforms such as Twitter and Google® Plus (Cochrane, 2013; Cochrane et al., 2013; Cochrane & Keegan, 2012).

Curriculum Integration Examples

Our curriculum integration examples are driven by a rethinking of learning rather than by technological determinism. Mobile social media provide the tools for this rethinking rather than the impetus; hence there is a belief in the benefits of reframing of education around heutagogy. The establishment of a community of practice supporting each project, and the overarching community of practice of the collaborative interdisciplinary teams provides the pedagogical and technical support structure for the shift in conceptions of learning and teaching.

This ontological shift (Chi & Hausmann, 2003), involves reconceptualizing the role of mobile social media in education, and reconceptualizing the roles of the teachers and learners – moving away from a teacher-focused content delivery mode towards a student-directed learning paradigm (heutagogy). These long-term projects are continually evolving.

Digital Media

The Digital Media project focused upon developing learning communities using Google Plus and the Google® Plus App on smartphones and tablets. The researcher and the lecturers established a Google® Plus Community to experience and explore the potential of mobile social media within the curriculum (http://bit.ly/GA4kQW).

The main course assignment was for a student team to develop an m-learning application. The course assessment requirements were redesigned from focusing upon the submission of a written Word® report on the development process to the establishment of a team-based project e-portfolio using mobile social media such as Google® Plus Communities, blogs, and Google Drive™. Students were able to use large screen displays or MOAs in class to collaborate on their application development and preview their development directly from their mobile devices. This was an improvement on creating static screenshots and using PowerPoint® presentations of the application as they had previously. Table 13.3 shows an example of an original assessment outline and the redesigned outline, based upon our mobile social media framework.

Table 13.3: Assessment Criteria for an Educational Mobile Web Application

Original assessment criteria	Redesigned assessment criteria
Your research on the topic you selected to be taught within a folder named "YOURINITIALS_Research" A diagram of your mobile web app as a .pdf named "Diagram" A Mockup of your mobile apps pages as .jpgs or .pdfs named "Wireframe" Your completed mobile web app and all its components contained in a folder named "WebApp" Your individual contribution as a .doc names "INITIALS_Contribution" Your references as a .doc named "References" Ensure all files are named correctly and contained within a folder labeled "TeamName_Brief4".	Your research and media for the project must be uploaded to your WordPress blog and external media embedded or linked to your blog. Make at least a weekly project progress summary blog post, and attach/embed supporting media to this post. Use the hashtag #148302a3 to filter blog posts and media for this assignment. Create a Google® Plus Group for scheduling and recording your group meetings and activity. Create a shared Mendeley (http://www.mendeley.com) library of your references, using APA formatting, and link this to a blog post named "References" Your final blog post will be a reflection on the project, including a summary of the team and your specific contribution to the team project - this can include a short 1 minute VodCast uploaded to either YouTube™ or Vimeo and embedded in your blog post.

Table 13.4 shows a comparison of the change in curriculum activities and assessments, with the original assessment approach situated firmly within a teacher-directed pedagogy, while the redesigned assessment activities move towards student-directed heutagogy.

Table 13.4: Mobile Social Media in the Digital Media Curriculum

Pedagogy	Andragogy	Heutagogy
Activity Teacher-defined projects: course requirements, project scope Teacher-delivered examples Assignments descriptive Assignment submission via Word® reports and Powerpoint®	Types Teacher as guide Digital identity: WordPress journals Student-generated content using smartphone Student-negotiated teams in Google® Plus Community	Teacher modeling use of mobile social media within collaborative curriculum redesign team Student-generated contexts: Authentic mobile application design and development
Creative Reproduction	Incrementation	Re-initiation

Product Design

This project involved the redesign of a course developed around a traditional physical design studio environment. This limited the student interaction and collaboration to a specific physical space, and also limited the bridging of students' real world experience in field trips and situated projects.

A core aspect of the curriculum was a Design Thinking Toolkit (DTT), initially delivered as a set of PowerPoint® slides, and redesigned as a mobile-friendly html5 online toolbox. The integration of social media within the course enabled a more flexible link to authentic student projects beyond the design studio, and the establishment of shareable e-portfolios of their work.

Journalism

First year journalism

This project was initiated in 2012 with the establishment of a community of practice with a group of staff teaching the first year course in Journalism Studies. Over the years, the courses and the teaching practice have gone through a significant change. Journalism is a practice based on real events either in the past, current or the future. Learning and teaching of journalism studies, however, remains heavily situated within the confines of the four walls of the classroom. Prior to the start of the project, students wrote news articles and submitted them to the lecturer in Word® format. Previously, the learning mostly revolved around gathering the news, writing and editing between the student and the teacher. The students now publish their work on their own blog and promote their stories through social media tools like Twitter. Learning happens where the 'story' is, out in the real world and is mediated by mobile and social media tools. Table 13.6 outlines some of the changes in the courses.

Table 13.5: Assessment Redesign – Product Design

Original assessment criteria	Redesigned assessment criteria
Assessment 1: Collation of a portfolio of student's work throughout the year as hard copy documentation supplemented with a printed PDF report.	**Assessment 1:** Establishment of student-generated e-portfolios using student-owned mobile devices, WordPress blogs, enabling peer and lecturer critique and formative feedback.
Assessment 2: Students use an institutionally hosted version of Mahara to document their project.	**Assessment 2:** Student project collaboration using Dropbox, Google Drive™, and student-owned mobile devices.

Assessment 3: Student-negotiated team projects presented to class via PowerPoint®	**Assessment 3:** Student-negotiated team projects exploring the unique affordances of mobile devices in partnership with Vodafone New Zealand and Auckland Transport. Presented by team blog journals and wireless screen mirroring from their mobile devices.

Table 13.6: Assessment redesign – First Year Journalism

Original assessment criteria	Redesigned assessment criteria
Ten stories submitted to the teacher of the course in written format via email in Word® format.	Stories are published on a student blog, shared with the world using Twitter. Focus on the creation of multimedia news articles which may have a combination of pictures, videos, and analysis of facts using social media. Emphasis on students building a sense of identity (as a journalist) and creating a network and using social media for collecting and broking news. For example, this news reported by a prime time current affairs channel (http://bit.ly/1dl4kOd) was initially broken by a student in class.

Third year journalism

This project involved the collaborative redesign of a New Media Journalism course from a previous focus upon teaching students rudimentary web 1.0 development skills and the PowerPoint® presentation of social media case studies from the lecturers, to providing students with an authentic experience of using and critiquing mobile social media as it has transformed contemporary journalism practice (Cochrane, Mulrennan, Sissons, Pamatatau, & Barnes, 2013).

A key change in this course was the modelling of the use of social media live in the classroom, with a Twitter and Todaysmeet backchannel displayed throughout classes from students' smartphones to a large screen MOA; this produced a lively interactive class environment.

Table 13.7: Assessment Redesign – Third Year Journalism

Original assessment criteria	Redesigned assessment criteria
Assessment 1: In-class group presentation (PowerPoint®) on aspects of media convergence, new media journalism and web-based reporting (10 marks) and an individual essay of 1000 words (20 marks)	**Assessment 1:** Students create an extended journalism community of practice facilitated by mobile social media, and curate and publish coverage of a public news event. Student teams then present their stories in class using mobile social media (Prezi, Skype™, Vidyo™cast etc…), while being live-streamed to Bambuser, e.g. http://youtu.be/a58l3L5O18E
Assessment 2: Use the institutions LMS discussion forum to create a web-journalism portfolio – accessible by the class only	**Assessment 2:** Develop a real world personal journalism digital identity profile using mobile social media (Twitter, YouTube™, WordPress, LinkedIn, etc.)
Assessment 3: Learn Dreamweaver® for personal web design and production of a news-oriented website	**Assessment 3:** Students collaboratively curate, critique, and publish a news portfolio enabled via mobile social media tools for publication on the School's website using Storify. This includes the use of Twitter, blogs, live-blogging, Vidyocast, videoconferencing, crowdsourcing, Vine and Vyclone. These pieces of content will be curated into a Storify with a total of 500 words giving context and analysis on the social media tool they have used, and how it has enabled the production of the item.

Graphic Design

This project centred upon the development of a lecturer community of practice to explore the development of a new media minor consisting of four elective courses over three years of the degree, based upon mobile social media. The new minor focuses upon extending students' experience and expertise beyond the formal requirements of the course to give them a real world collaborative experience via mobile social media such as Twitter, live streaming via Bambuser, eportfolios such as Behance.com, and the use of mobile devices to present in-class reports and to participate in live critiques via screen mirroring of their mobile devices to MOAs. The development of the new media minor is structured around four new elective papers across three years, outlined in Table 13.8.

Table 13.8: Developing a New Media Minor Based Upon Our Mobile Social Media Framework

Paper	Yr	Cognition level	Assessment activities	Conceptual shift	PAH alignment
Paper 1: Introduction to mobile social media	1	Cognitive	Personal digital identity building and student-generated content	Teacher-modeled	Pedagogy
Paper 2: Mobile social media collaboration	2	Meta Cognitive	Collaborate in a team-based project as content creators	Teacher-guided	Andragogy
Paper 3: Contextual affordances of mobile social media	2	Epistemic	Establishment of an international team project	Student-negotiated	Andragogy to heutagogy
Paper 4: International community of practice	3	Epistemic	Active participation within a global professional community	Student-directed	Heutagogy

The final paper of the new media minor requires students to create and actively participate in a global team project, giving them an authentic experience of working in a professional community of practice within their discipline.

Communications Studies

A community of practice was set up with a group of staff teaching a second year paper in Bachelor of Communication Studies. The focus of the COP was to explore alternative communication platforms that students could use to explore or compliment a genre of communication.

Another focus was to help upskill staff on the use of mobile social media in learning and teaching. The project was implemented within a design-based research approach to establish a set of guiding principles to help two other courses and a group of staff to revisit the courses they taught. As a result of the approach, the initial COP has had a significant impact on the design and facilitation of the three courses taught as part of the bachelors degree.

Table 13.9 highlights the changes achieved over the last year of the project.

Table 13.9: Assessment Redesign – Communications Studies

Original assessment criteria	Redesigned assessment criteria
Paper 1. Students created a series of podcasts as a platform for communication. The students were assessed at the end of the semester with formative feedback throughout the learning process.	Student created group projects to work on. The projects could be anything they were interested in exploring together. Students then explore the appropriate mobile technologies (e.g. Twitter, blogging, augmented reality with WikiTude®, Google Maps™, movies, and animation) that complimented the communication process and created an artefact that was assessed at the end of the semester. The assessment was portfolio based with formative feedback throughout the process.
Papers 2 and 3. Student portfolios captured behind institutional system with very limited or no opportunity for collaboration.	Still very early in the redesign phase but the two papers were moved to open systems (e.g. WordPress and Google®) to increase collaboration between students and to encourage creative use of mobile technologies and social media for authentic learning.

The key change in Paper 1, and Papers 2 and 3 was the authentic context students learn in. Before the start of the project, learning was situated in the classroom and the computer lab, whereas now the learning is situated in the 'real world' and determined by the student. Mobile social media has replaced the computer labs, unlocking an entire world of new opportunities.

Lessons Learned

We have worked with the PAH framework and supported this through building communities of practice for a number of years. We have observed a significant transformation in teaching practices, leading to enhanced learning experiences for the students. Academia has grappled with staff development with the aim of improving practice via educational technology. However, an inability to move beyond the workshop model has led to making the same mistakes again and again. In this chapter, we have given examples of how sustained engagement with lecturers, over a significant duration of time, can help achieve the outcomes needed in a twenty first century education system.

The community of practice model helps nurture a conversation across domains as highlighted in Figure 13.1. In our experience implementing the approach, we have observed that conversations within the community do not happen in isolation but are the result of a mix of appropriate approaches, technologies and course design strategies. The conversations in the community of multidisciplinary skills resulted in a rich source of creative ideas being brought to collaborative curriculum design. While this is a resource intensive approach, the rich results make it worthwhile.

Student reactions to the changes

We have found that the best approach to managing student experience, based upon their previous teacher-directed educational experiences, is to create a new culture within the course by beginning the change process in the first year of the course, and building upon this throughout the length of the course. The changes are then not seen as an add-on to an already existing curriculum, rather they become avenues for student-generated creativity and the beginnings of a life-long student portfolio that can be used to showcase student skills to prospective employers (Cochrane, Guinibert, Simeti, Brannigan, & Kala, 2014).

Student levels of performance

New approaches require staging and scaffolding as new experiences and assessment approaches are introduced into the curriculum. New approaches also require explicit explanation of the underlying justification for their applicability to student graduate capabilities (Cochrane, 2014). When these are an explicit part of the design of the leaning processes of each project, then students are invariably exposed to more authentic learning environments that enable them to gain a deeper understanding of curriculum principles, which results in more creative outputs and higher assessment marks.

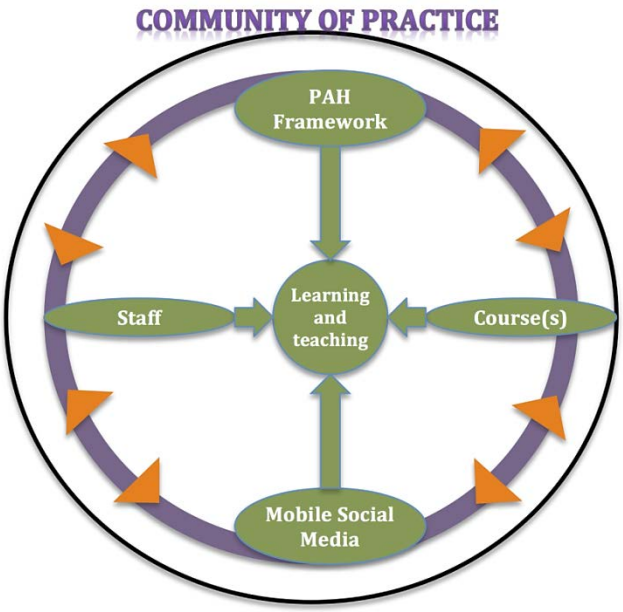

Figure 13.1. Elements of cultivating creative pedagogies

Approaches used to persuade academic staff to change methodologies

In each case we view the change process as a long-term strategy and the journey that this change occurs is unique for each COP. By moving away from a one-size-fits-all workshop approach to academic development, we have seen more significant and sustained change. While a long list of delivered workshops may look good on paper, case studies that showcase significant pedagogical change

within a department are ultimately a better measure of successful change (Cochrane, Black, Lee, Narayan, & Verswijvelen, 2012).

Staff commitment and enthusiasm for the new approaches

The key to sustaining a COP is finding the appropriate domain of interest for every specific group of lecturers. When this is identified via a collaborative process with the participants, we find the glue that sustains both commitment and enthusiasm. For some, this is the access to new technologies, for others it is increased research output, and for others it is the liberation of being supported to be creative within their teaching practice (Cochrane & Narayan, 2013).

How executive endorsement for the changes is obtained

All the projects have used the formation of collaborative COPs as a model, involving both departmental lecturers and academic developers as members. This multidisciplinary approach brings awareness of successful change to several levels of educational management – at a departmental level, a faculty level, and a central services level. Heads of departments, faculty deans, and teaching and learning deans are eager to celebrate success stories and support these positive changes and embed them within institutional strategies (Cochrane, 2010). We use regular showcases of the projects, and a growing significant body of research publications on the scholarship of teaching and learning, as outcomes of each project providing peer-reviewed evidence of the pedagogical change achieved.

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Further Resources

Here we provide links to resources that explore the key parts of our mobile social media framework in more depth.

Elements of the framework:

1) Mlearning Critical Success Factors:
http://www.researchinlearningtechnology.net/index.php/rlt/article/view/19186
2) Creating Communities of Practice:
http://www.researchinlearningtechnology.net/index.php/rlt/article/view/21955
3) Collaborative Curriculum Redesign:
http://ascilite.org.au/ajet/submission/index.php/AJET/article/view/191
4) Building a Technical Infrastructure:
https://docs.google.com/document/d/1JWaJojgrXn3oNQ_Pzf5DEDo2ZpoHLSt09kpMPZdkFBk/edit
5) Technical and Pedagogical Support
   (a) Technology Stewardship:
   http://www.ece.salford.ac.uk/programmes-2011/papers/paper_135.pdf
   (b) LATTEs:
   http://www.photoninja.co.nz/Images/latteposter.pdf

Example Implementations:

1) Product Design
   (a) Case Study:
   https://dl.dropboxusercontent.com/u/9114924/thom/pdfs/v3n4p150_Cochrane.pdf
   (b) Project Plan:
   https://docs.google.com/document/d/1JZLQH1VI-ilORKi7ODCDorVOumO1tAwkn9w5fhOHKgU/edit?pli=1
2) Journalism
   (a) Case Study:
   http://www.icicte.org/Proceedings2013/Papers%202013/08-2-Mulrennan.pdf
   (b) Project Plan:
   https://docs.google.com/document/d/1OiGlB06hQuQqn0gx7mXWO69uoHSZO12dlOxyS8N_z-8/edit?pli=1
3) Graphics design
   (a) Case Study:
   http://www.qscience.com/doi/abs/10.5339/qproc.2013.mlearn.2
   (b) Project Plan:
   https://docs.google.com/document/d/17A_gfdXry2zbPFD0WYnHO6SeNC9O8MKk6B2pn_91Rbo/edit?pli=1

4) Communications
   (a) Case Study: https://dl.dropboxusercontent.com/u/9114924/thom/pdfs/Chapter1CochranePrePrint.pdf.
   (b) Project Plan: https://docs.google.com/document/d/1gxQXBQK3b2Vkyjeh79dJTWQdB01iyhQfvMg6LCmYR1o/edit?pli=1
5) Paramedicine
   (a) Project Plan: https://docs.google.com/document/d/1WgiHFPxxShzP0jPqQ7uUhVbhzCTC8T_7f_g4_dqwlog/edit?pli=1

Example Student Projects:

1) Public Relations social media collaborative presentations: https://picasaweb.google.com/104071444159890894025/ICollab02?authuser=0&feat=directlink
2) Storifying Journalism – reinventing the essay: https://picasaweb.google.com/104071444159890894025/Journalism?feat=directlink
3) Collaborative mobile movie production: https://plus.google.com/photos/+ThomCochrane/albums/5857151857614353985?banner=pwa
4) Product Design eportfolios: https://plus.google.com/photos/+ThomCochrane/albums/5722857670601669665?banner=pwa

14 FROM OBSTACLE TO OPPORTUNITY

Using Government-mandated Curriculum Change as a Springboard for Changes in Learning and Teaching

Jon Andrews

Summary

When faced with a seemingly rigid curriculum mandate and patches of professional inertia, complacency or uncertainty, how can schools heighten learner autonomy, co-construct the conditions for it, venture into heutagogy and scale up pockets of brilliance? The story of St. Paul's School in implementing curriculum change using a heutagogical approach offers some answers. In 2013, St. Paul's School, Queensland, Australia embarked on the process of implementing new government-mandated curricula in their Junior School for seven subjects in the areas of the Arts and Technologies. St. Paul's rejected this standardised curriculum delivery as a default for cushioning change and, instead committed to a heutagogical approach to curriculum adoption and learning. St. Paul's found that the keys to creating the conditions for heutagogy and unlocking the talent, interest and passion of students (as demonstrated by self-determination within curriculum demands) were:

- *Developing and implementing a model for program design (the FACE model)*
- *Providing curriculum and learning support to teachers*
- *Creating dedicated space within the timetable for a heutagogical approach*
- *Developing a culture of trust for risk-taking, innovation and reflection between staff*
- *Sensitively managing the transition from teacher-driven pedagogy to learner-centred heutagogy.*

Developing a Heutagogy Mindset

St. Paul's School (http://www.stpauls.qld.edu.au/page/home) is located in Brisbane, Australia and is a co-educational school with approximately 1450 students from early learning to Year 12. St. Paul's Junior School educates students from Pre-Prep (3 to 4 years of age) up to Year 6; the Middle School comprises Years 7 to 9; the Senior School comprises Years 10 to 12. The school is 52 years old and has 160 staff, both teaching and non-teaching. The school is an independent school, that is, it is regulated but not owned by the state government. Like other schools in Queensland, St. Paul's must follow a government-mandated national curriculum, participate in national standardised testing regimes, meet state government assessment and certification requirements, and demonstrate continual school improvement. (http://www.acara.edu.au/)

St Paul's articulates a holistic education. Its approach to developing learner capabilities involves a proactive, not passive, process and students are seen as key agents in their own learning which, more often than not, is the product of personal experience. There is a deeply embedded Reggio Emilia philosophy in early childhood and lower junior years learning (https://www.reggioaustralia.org.au/).

The approach emphasizes and fosters a culture of collaboration and social learning amongst children, co-construction of knowledge, and interdependence of the individual. It is also founded on the use of deep exploratory questions where children drive the learning, and teachers are keen observers, documenters, and facilitators. Although this approach was well established, the school began to investigate heutagogy and envision how it might be applied across all years. Heutagogy was a natural complement as it traverse many of the underpinning Reggio Emilia principles.

A compelling vision energizes people by providing them with an exciting picture of the future and all that it might deliver. To begin the process of helping our staff to reimagine and even re-engineer what learning looks like, we first designed a conceptual framework that was meant to help staff reflect on their current philosophy and practice and how it stood in relation to the new approach.

The matrix in Figure 14.1 was co-developed with David Price and draws on the work of Hase & Kenyon (2013), Blaschke (2012), and Garnett and O'Beirne (2013).

The process of building a new learning and teaching culture should be collaborative, consultative and ideally involve stakeholders to authenticate the process and build trust. However compelling the vision of heutagogy, it can also be threatening to those teachers who still see themselves in the "master-apprentice" role. Using the matrix in Figure 14.1 allows us to map and customise the journey to the desired.

	Pedagogy: **Teacher-Led Learning**	***Andragogy:*** **Self-Directed Learning**	***Heutagogy:*** **Self-Determined Learning**
Dependence	• The learner is dependent. The teacher determines what, how, where and when anything is learned	• Learners are independent. They strive for autonomy in learning, to arrive at a destination determined by others. They are 'problem solvers'	• Learners are 'problem-finders'. They know their destination and become interdependent on those who can help them determine the route
Reasons for Learning	• Learners place their trust in the teacher and the efficacy of linear, sequential learning. Learners take little or no responsibility for their learning	• Learners seek guidance/mentorship, but aspire to increasing responsibility for the direction of their learning	• Learning is not necessarily sequential or linear. Learners accept full responsibility for their learning, welcoming challenge and serendipity
Focus of Learning	• Learning is subject-centred and focussed on prescribed curricula	• Learning is goal-driven, focussing on tasks which allow for cross-disciplinary thinking and autonomy	• Learners are enquiry driven – they take a long-term view of their learning, seeking further complexity and uncertainty
Motivation for Learning	• Motivation derives from external/ extrinsic sources, e.g. parents, teachers, sense of competition etc.	• Motivation is intrinsic – learners enjoy the boost to self-esteem that comes from successfully completing challenges	• Motivation lies in experiencing 'flow' and knowing how to learn. Learners seek out unfamiliar situations and the gaining of 'adaptive competencies'
Role of teacher	• Pedagogue – designs the learning process, suggests and provides materials deemed effective at achieving desired outcomes	• Facilitator – sets tasks but encourages diverse routes to solutions. Pursues meta-cognition in learners	• Coach – brings together opportunity, context, external relevance and extended complexity. Fosters a culture of collaboration and curiosity

Figure 14.1. The learner's journey: From pedagogy to heutagogy (Price & Andrews, 2014)

To further support the awareness and development of heutagogy, St. Paul's has created five unique roles called Heads of Learning within the following areas: Design, Entrepreneurship, Sustainability, Inquiry, and Creativity. Each Head of Learning role is not a traditional Head of Department role. The primary role of the Head of Learning is to support teachers in interpreting curriculum, explore possibilities for innovating learning, encourage risk and trial, evaluate methodology, and coach individuals, small groups, or the whole staff in the five areas. The role is not aligned to subject areas, but is trans-disciplinary and spans the age continuum (Pre-Prep to Year 12). The Heads of Learning occupy and champion an approach to learning – or learning lens – within their specialist fields.

The Impetus to Take a Giant Leap Forward

Since 2009, the Australian Government has been developing and progressively implementing a national curriculum. Currently, Australian primary schools are facing the challenge of fully implementing and timetabling, by 2016, newly designed national curricula covering seven subjects within the Arts and Technologies () learning areas. As with the introduction of all new national curricula, the demands on teacher professional learning/skilling, resourcing, strategic development and support from enabling technologies are significant.
http://www.australiancurriculum.edu.au/thearts/introduction
http://www.australiancurriculum.edu.au/technologies/rationale-aims/technologies

In responding to this challenge, St. Paul's decided to avoid standardised and compartmentalized curriculum delivery as a default for cushioning change and instead sought ways to capitalise on existing learning innovations and effective practices in the Junior School. The pedagogical frameworks of the Heads of Learning were already well-embedded in the classrooms and practices of the Junior School. Even with youngsters in the Prep year, there was evidence of creative thinking, entrepreneurship, design thinking, and inquiry in both planning and learning. Learning has become more than just content mastery, it builds transferable skills and fosters deeper engagement. With a government-mandated curriculum revamp looming, it was decided to commit to phasing in the new curricula early and to put heutagogy at the centre of the process. Instead of allowing compulsory curriculum change to become an obstacle to innovation, we chose to use it as an opportunity for transformation.

Facing the Future

Blaschke (2012) suggests that there are four critical elements of a heutagogical or learner-centred approach to course design:

1. Learner-defined learning contracts to "support students in defining and determining their individual learning paths" (p. 64)
2. Flexible curriculum, "which adapts and evolves according to learner needs" (p. 64)

3. Learner-directed questions to "guide learners and serve as mechanisms for helping learners make sense of course content, bring clarity to ideas, and promote individual and group reflection" (p. 65)
4. Flexible and negotiated assessment, involving the learner in his or her assessment and including "measurable forms of assessing understanding of content, including whether the learner has achieved the competencies desired" (p. 65).

These elements were interpreted and conceptualised as the FACE model (Figure 14.2) and were used to describe the guiding principles for the transition, as well as a rubric for program design at St. Paul's.

The FACE model neatly dovetails with the St. Paul's educational philosophy, staff and student aspirations and provides an overarching heutagogy strategy.

Figure 14.2. The FACE Model © Jon Andrews and St. Paul's School, 2014

Making Time to Learn

For the FACE model to be successfully implemented, we needed to create space within an already crowded timetable. As in many school settings, finding the space to implement new subjects, curricula, or initiatives is challenging. More often than not, space can be found; it is a question of "letting go". In the same way that adopting heutagogy requires a re- engineering of the balance of power between learner and teacher, some timetable comforts that have "always been there" required scaling back to make way for innovation and redesign. This wasn't easy, as it meant grappling with the cultural capital of Junior School teaching to build a common vision and language for the approach.

Along with some minor re-shuffling of other commitments, we were able to designate one morning a week for what we called Immersion Studies Time, or IST. We set high expectations for IST, which was an important statement of intent, demonstrating our commitment to adopting heutagogy, reframing learning, and empowering students. We undertook curriculum mapping to identify content and knowledge duplication and to highlight opportunities for positioning and provisioning IST. Through IST, the new curriculum areas would be explored, covered, and integrated in a more interdisciplinary fashion.

In terms of the modes of learning described by West-Burnham & Coates (2005) (Figure 14.3), a key goal of IST is not to incrementally improve learning (single-loop) or to reframe it (double-loop, after Argyris & Schön, 1978), but to transform it into a complete experience and a preparation for the world today, as well as for an uncertain future (triple-loop).

Central to achieving triple-loop learning is the development of a culture of goal-setting, reflection, and critique that supports student in building resilience.

Such a culture also helps students take control of learning with the goal of helping them to achieve their full individual potential. This is our current situation.

The "FACElift": Implementing the FACE Model

With a specially created space in its Junior School timetable and with staff already accessing the expertise and support of the Heads of Learning and subject specialists, St. Paul's was ready to transform the FACE model into a practical reality.

Modes of learning

Professor John West-Burnham

	Shallow What?	Deep How?	Profound Why?
Means	Memorisation	Reflection	Intuition
Outcomes	Information	Knowledge	Wisdom
Evidence	Replication	Understanding	Meaning
Motivation	Extrinsic	Intrinsic	Moral
Attitudes	Compliance	Interpretation	Challenge
Relationships	Dependence	Independence	Interdependence
	Single loop	**Double loop**	**Triple loop**

Figure 14.3. Learning and skills improvement service (LSIS)
(West-Burnham & Coates, 2009) (Permission granted with thanks)

Flexible and negotiated curriculum

In using a hook statement or question based around an overarching theme that can then be interpreted by the child as an inquiry focus, St. Paul's Junior School staff applies a Reggio Emilia provocation and brainstorms with curriculum specialists to identify possible curriculum opportunities within the seven new national curriculum subjects. These are then shared with students who, in turn, interpret the provocations individually or in small groups to determine inquiry questions and to propose pathways. Students are excited to engage in learning beyond school and in learning that involves parents and community members, as well as adopting new and innovative modes of making, documenting, and displaying work that matters to them. Every fortnight, students check-in with their teacher or elected specialist to articulate and check against goals and to identify next steps.

Assessment: Flexible and negotiated

In establishing students' learning pathways, students and facilitators collaborate to establish success criteria. Teachers are supported in understanding what this could look like. (If the curriculum is being covered using a heutagogical approach, teachers are able to partner with one or more of the "on-demand" Heads of Learning who have dedicated IST time built into their teaching loads.) Many students opt for a creative mode of manifesting their learning – one that not only matches their strengths and interests, but also builds skills. These include designing, making, blogging, filming, and progressively building an assessment portfolio. Classes often see clusters of students opting for similar routes, which encourages collaboration.

A core tenet of IST – and heutagogy – is deep reflection. Students self-assess and peer-assess to support the redrafting and transformation of learning (triple-loop). This approach is not dissimilar to project-based learning critique, which requires that feedback is kind, specific and helpful. The time used for the approach is not

dedicated student time, but is part of the process that has been established and become the norm. Often, this process is conversational and supported by group time or by teacher interaction. It certainly happens more in classes where developmental changes emerge as students become more confident and teachers can use less scaffolding. It is common for learning to be adjusted in light of critiques, and this authenticates the self-determined nature of learning. Assessment is ongoing, unstandardized, and flexible. The process also includes a summative element, which involves a 'gallery-walk", and a showcase, which brings together all of the learning and allows the learner to engage with the community.

Contracts: Learner-defined pathways

With seven new subjects to cover, the temptation to "tick off" content by teaching discretely and having dedicated timetable allocations to the separate subjects is high. In a primary setting, there is also the temptation to make sure students are getting the proper foundation. Initiatives such as IST may be seen by some as usurping the significance of individual subjects, but at St. Paul's, the content is the what, and IST and learner-generated pathways are the how. In IST, the students are in the driving seat, and the content does not dictate the learning path. Moreover, IST is used to roadmap exploration. Again, there is variance depending on each student's developmental stage and teacher confidence in removing structures of support.

One key to growing awareness and authenticating heutagogy is the documentation of learning. Incentivised by choice and autonomy, students and teachers are encouraged to document their progress and growth. In many cases, staff model good practice by photographing or filming sessions, blogging, Tweeting, and sharing success and failures in collaborative meetings. This powerful form of self-reporting along the pathway inadvertently means that students and teachers hold themselves accountable individually and collectively to reflective practices and heightened human agency (see Chapter 1 for more information on human agency).

Inquiry questions: Learner generated

The Reggio Emilia philosophy and approach to education promotes the importance of provocations on which learning can hang. St. Paul's staff involved in IST catalyse this process by exploring the trans-disciplinary patterns and connections observed in the seven new subjects. From here, they filter down to broad-sweeping themes, such as change, sustainability, and the future, which can then be transplanted into classes, interpreted by students, and used to form the inquiry questions. Students can then embark on their learning adventure and develop their capabilities and competencies individually or in small groups.

Collaboration figures very strongly into staffing structure, decision-making, and problem-finding and solving at St. Paul's. It is no different for students. Collaboration is embedded in the fabric of lesson design, language, and expected dispositions. During IST, there are many opportunities for students to inquire together, struggle together, discover together, resource and present together. IST is

facilitated to enhance a healthy blend of self-determination and social learning atmospheres. Teachers and students can frequently be seen orbiting key questions, sharing visible and conceptual ideas, and transforming intended outcomes.

Professional learning support

Mention has already been made of the five Heads of Learning who are designated to support teaching staff as learning coaches. These five specialists have time built into their teaching loads to be available during IST to provide support and have been integral to the development of IST in terms of supporting professional learning and fostering a heutagogy mindset.

Collaborative meeting and planning are key elements in staff learning and support, particularly in supporting the heutagogical approach to IST. Staff meeting time has been adjusted to become transformational – talking about and centering on learning – rather than being merely transactional in nature.

Alongside the Heads of Learning, a team of curriculum specialists has been established that represents the seven new subjects. This team from the Middle and Senior Schools provides coaching, resources, and collaborative opportunities to support Junior School class teachers. This on-demand professional learning results in shared planning (and accountability), collegial reflection, and critical thinking.

A Twitter professional learning network (PLN) for facilitating learner-driven content and pathways has developed alongside "in-lesson" team support. This informal, flexible, social staff learning is proving highly successful and is recommended for leaders to support and encourage staff in order to facilitate the transition into this new approach to learning.

What Does Heutagogy LOOK Like in a Junior School Classroom?

Tosey (2002) describes "learning at the edge of chaos" as the place where the most significant learner gains are observed. Learning becomes empowering and relational: "In chaos, a system could self-organise into a higher level of complexity, with novel forms of relationship emerging" (Tosey, 2002, p. 17).

In some of our Junior School classrooms during IST, the teacher and student are almost indistinguishable as learners. While a central provocation drives the process, students can be seen individually honing their skills in craftsman-like fashion. Some may be making and creating through interpretive dance or music, others designing and making, some composing and performing music, and still others employing technologies to discover and create. In essence, these opportunities are about enhancing human talents and encouraging and celebrating diversity. In other classes, there is a little more structure due to the students' developmental stage or particular learning needs. However, an overarching journey of transformation continues throughout the Junior School.

Yong Zhao (2012) differentiates between education in the employment and the entrepreneurial. IST is a way of enacting this shift in thinking by placing the student in the driving seat.

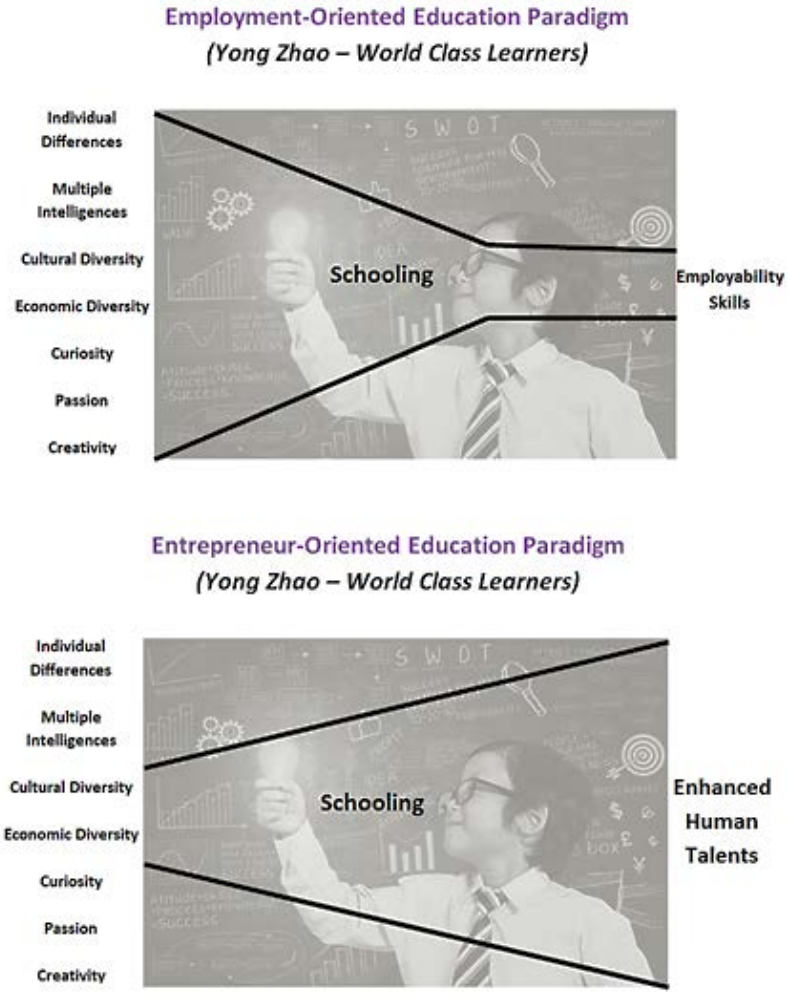

Figure 14.4. Employment-oriented and entrepreneur- oriented education paradigms (Zhao, 2012). (Permission granted with thanks)

At St. Paul's, teachers operate in teams and facilitate the resourcing of students, nudging them forward in the reflective and reframing processes. The aim is for minimal input from teachers, As writer and lecturer in education and human behaviour, Alfie Kohn (n.d.) says, teachers probably have "teeth marks on their tongues" (para. 6); when this happens, they are transitioning from pedagogy to heutagogy. At St. Paul's, many teachers can be seen filming, recording, writing, brainstorming, and capturing the learning. These reflections are transposed into journals and portfolios to document the learning and the learning progress and to share with colleagues in further predictive planning.

Lessons Learned

As Canning (2013) points out, one core tenet of heutagogical learning is that it is a "highly individual process with unpredictable effects when it occurs" (p, 172). In planning for the adoption of heutagogical approaches, this principle applies to both teachers and students, thus making them co-learners. Below are some lessons that we at St. Paul's School have learned in our journey and that others may find valuable.

Invest in time: While St. Paul's committed one morning per week toward implementing a heutagogical approach to its new Arts and Technologies curricula, our experience indicates that there is a case for more time to be committed to such a significant shift in thinking and practice – perhaps a whole day or more each week!

Build trust: Shifting the organisational culture towards heutagogy is vitally important. Heutagogy can appear as a threatening proposition for teachers. The notion of relinquishing control of learning and moving to a facilitative role – and one where the goal is to create experiential opportunities for students to unlock interests and strengths – takes great trust in oneself, in colleagues, and in the students. Tyler and Kramer (1996) note that:

> In the absence of trust people are increasingly unwilling to take risks and demand greater protections to defend their interests…Without trust, issues are seldom discussed and never resolved; people are likely to say only those things they expect others want to hear (Lovell & Wiles, 1983). Without trust, a school cannot improve and grow into the rich, nurturing micro-society needed by children and adults alike. (p. 172).

Collaborative intent and authorship of the process is the key to building that professional trust, developing working relationships, embracing change, and accepting a swing in the balance of power to become a co-learner. Browning (2014) identifies 10 practices commonly used by successful transformational school leaders to build and enhance trust in relationships with staff:

1. Admit mistakes.
2. Offer trust to staff members.
3. Actively listen.
4. Provide affirmation.
5. Make informed and consultative decisions.
6. Be visible around the organization.
7. Remain calm and level-headed.
8. Mentor and coach staff.
9. Care for staff members.
10. Keep confidences.

While Browning's research lies largely in the area of principals' practices, the findings are transferable to teacher-peer, teacher-student, and student-student

contexts. It is vital to acknowledge the primacy of trust when navigating into heutagogy, risk, and innovation. Regular evaluation of levels of trust would be advisable, and Browning's research and 10 indicators are a useful yardstick.

Staff development: Do not underestimate the impact on staff development as staff move from traditional pedagogies or hybrid practices that engage learners to the more empowering model of heutagogy. Be prepared to building in systems of ongoing professional learning and collaborative support. Professional learning communities (PLCs) are critical. Harris and Jones (2012) suggest that learner gains are enhanced as a direct result of teachers' collaborative intent with students' learning in mind. However, establishing a professional learning community needs to be supplemented with more flexible and well-tailored forms of teachers' professional learning. As suggested by the Australian Institute for Teaching and School Leadership (AITSL, 2014), affording teachers the opportunity to learn autonomously can result in significant gains in both trust and professional growth. From research and prototyping to action and reflection, colleagues should be encouraged to blend learning collegially with individual preferences. Encourage them to share successes and challenges, as this can also build trust.

Clarity + communication of vision to community: From the idea to the introduction of heutagogy and then throughout the journey, be clear in the articulation of the vision, or the why. Heutagogy is not a traditional education paradigm, and it is important to help those whom you want to take on the journey to imagine the path ahead. Asking the following questions is important: Why are we going this way? What value does it add? What is the role of the teacher? How do we bring families/caregivers on board? A compelling vision also spells out roles, responsibilities, expectations, and layers of support. Make every effort to publicise each step and celebrate and display work that matters (ideally with students as curators, publicists, guides, and speakers). Seek also to involve families and community groups to contribute ideas, resources, time, or expertise and to be an authentic audience for critique.

Capture the journey: Arguably, this is the most onerous but most rewarding aspect of embarking on the journey of embedding heutagogy. The joy, excitement, and curiosity witnessed in the students at St. Paul's are testament enough that heutagogy is a path well worth pursuing. The power of trans-disciplinary, self-determined learning and multi-age collaboration has created a culture of growing together. Students and teachers alike develop digital and physical portfolios of their learning journeys, not only to capture and constitute flexible assessment for and as learning, but also individual growth in capabilities and capacities. Photos, videos, blogs, tweets, presentations, models, and drafts: whatever can attest to this development, capture it! The success of IST has led to St. Paul's to embark on another design-led, entrepreneurial and heutagogical projects in the middle-school (http://thecentreonline.com.au/2014/06/24/shipping-coffee-adult-education/).

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15 ONE WAY OF INTRODUCING HEUTAGOGY

Chris Kenyon

Summary

This chapter describes one way in which a group of people was introduced to the ideas and practical application of heutagogy. The challenge faced was to make heutagogy meaningful and useful to this group, who had different professional roles, with different personalities, and who ranged in age from their twenties to their sixties. And a couple more challenges: nobody in the group had any idea what heutagogy was, and there were just 150 minutes to get everyone involved and inspired to learn more.

Introduction

I was asked to run a workshop at an annual staff conference for an organization that helps people in difficult situations. Clients range from children to adults in later life; problems mainly concern relationships, but clients may also include people who are disadvantaged in some way: socially, physically or mentally. Because all staff have to work with or attend to clients who are experiencing problems, establishing sound communication with these clients is of paramount importance. So, what are the skills and knowledge needed to make communication with clients effective, and how can these skills and knowledge be acquired? The workshop aimed to provide some answers to these questions.

Planning and Preparation

Where to begin? As I saw it, the first challenge was that the workshop participants would be expecting that heutagogy would be some sort of technique that they could be taught, and thereafter, magically, their communication with clients would become so much easier. The next challenge was to work out what, if anything, the participants had in common since it was a fairly heterogeneous group of counselors, trainers, administrators, and staff in finance and logistics. Staff ages were wide ranging, and hence there were different life experiences and different levels of professional skills. I needed to find something that everyone had in common that could serve as a starting point for the workshop. I could then adopt a heutagogical approach to enable people to determine their own learning desires.

One of the things I learned early in my career was that in the first few minutes of a workshop you can usually ask participants to do almost anything, and they will oblige. An impactful start to this workshop was needed. Neuroscience tells us that valuable learning takes place in an emotional context (see also Chapter 1 of this book). So there needed to be a positive common emotional experience or experiences for the workshop participants. This would not only kick-start the learning, but as the workshop progressed, enable participants to readily discuss

their learning and their emotions with colleagues. And of course the workshop needed to give participants a learning experience from which they would benefit and which would be useful in their lives, either at work or away from work. So what was needed was something that would immediately strongly spark and then retain participant positive emotions.

I decided to use an experiential approach called Deedeekun, which has been around for about twenty years and is available in two versions. The first version is designed so that people learn about working with "different" people, and the second version aims to provide an experience in learning about communication, planning, innovation, and flexibility while working in a team environment. Both versions intentionally create different emotions at various stages of the experiential. (More details about Deedeekun can be found in the Further Resources section at the end of this chapter.)

The Workshop – Part 1

Participants came into the workshop venue and sat at round tables, eight people to a table. There was no formal introduction nor any explanation of what the workshop was about. I greeted the group and told them that they would be building a tower with Lego blocks. Laughter. I then explained that they would have written instructions on how to build the tower. Four of the people at each table would have one set of instructions, and the other four people would have another set of instructions; the aim of the exercise was for everyone to work *together* to build the tower. And because the spoken and written word can sometimes be misinterpreted, there would be no verbal or written communication during the building of the tower. This time there was laughter, disbelief, and uncertainty. Participants, as expected, looked puzzled, probably wondering if this was what usually happened at a staff conference.

Four people from each table then went away to be given their instruction, and the remaining groups of four were briefed on how to follow their set of instructions. The two parts of each group were then reunited, reminded that talking was not allowed, and then asked to start building the tower.

In the early stage of the Deedeekun experiential, there is often lots of laughter as people communicate non-verbally. The level of noise in the room (even though people are not talking) rises; laughter seems to encourage more laughter. Then gradually the laughter subsides and a general air of frustration and confusion becomes apparent as people are unsure of what they are trying to do and how to do it – even though they all have comprehensive instruction sheets in their hands. Towers tend to be partially built and then taken apart as each side seeks to follow what they perceive as the correct way of building. Participants are eventually told that they have only fifteen minutes left to complete the task, and this announcement propels the groups into the final stage. There is a determination to finish. Quite quickly an atmosphere of intense concentration is created; this is only punctuated by grunts of approval and sighs of satisfaction as the towers near completion. Finally, time is up, and there are sighs of relief all

round, coupled with shouts of satisfaction at the achievement of the objective. This is also what happened in the first part of this workshop.

The two sides from each table were then again separated and asked to write down ten things they had learned about the ideas and behaviors that those on the other side of the table seemed to have. Reunited, the groups faced each other across the room and read out their list of ideas and the behaviors they had observed. The other side listened, but not impassively, and then the roles are reversed. Many of the things 'learned' about those on the other side were incorrect, and there followed a discussion as to why this was so.

Next, everyone was asked to write down three things that they did, three things that they thought, and two things they felt during the game. I then collected this information on a whiteboard for all to see. Finally, I asked a question of everyone: *what were you trying to do?* And the answer, of course, was to work *together* to achieve something. I then asked them: *And what made this difficult?* The answer: Not understanding the others and negative emotions. *And what happened when you finally built the tower?* Excitement, satisfaction, relief, joy, and the sense that next time they would know what to do.

Figure 15.1. Deedeekun tower building

The Workshop – Part 2

The experience of working together was then likened to a work situation where one was having a conversation with a client. In this situation, there would be a need for both sides to understand each other and to work towards an outcome

that was mutually agreeable. Sometimes an outcome may be pre-determined, but usually there are a range of options and different ways of reaching each option. Learning about the other person and his or her needs, and also revealing one's own position and ideas, are essential to achieving the best outcomes from conversations.

Next, everyone was asked to 1) think about something they had learned that was really important to them, and then to 2) write down how and when that learning took place. After a few minutes, each person then shared his or her significant learning experience with the others around the table. The emotions experienced and shared during Deedeekun produced an atmosphere in which people were open, and they share their learning experiences in detail. Then in open session, some people described their experiences for everyone to hear. We drew out these common themes:

- having a strong desire to gain a particular skill or acquire specific knowledge,
- finding out how to satisfy this desire (sometimes through courses, sometimes through people who had the requisite skills or knowledge, sometimes accessing the internet),
- the enthusiasm that accompanied the learning,
- the joy and excitement that came from achieving one's goals,
- wanting to learn more, and
- being more confident about learning.

I then provided a brief explanation of the ideas behind self-determined learning (see Chapter 1). Participants immediately recognized the similarities between self-determined learning and the learning that they had just experienced. The next step was to give every participant an opportunity to further build on the workshop experience, and decide what learning was important to them individually.

Everyone was given a sheet of paper on which they were asked to complete the following information:

- I would really like to learn about, or learn how to:
- My preferred way of learning this would be:
- The person/people who could facilitate my learning is/are:
- The resources I need are:
- I will obtain these resources by (method):
- I will start the learning (date):
- I will be happy with my learning when:

For about 15 minutes there was silence in the room, and the atmosphere was one of intense concentration. Everyone was then asked to share their answers with others in their group. Other people in the group were able to offer their

suggestions that might assist in starting, progressing, or achieving each of the desired learning experiences.

As the time available for the workshop had by then run out, I quickly thanked everyone for their participation, and said I would be available for further discussion during the conference. Some of the crowd surged off to afternoon tea and several people stayed behind to talk about their experiences and their learning.

Post Workshop

The energy generated during the workshop was palpable. Participants left the workshop clutching their desired learning sheets, and still deep in conversation with colleagues. During the following day, several participants made a point of saying not only that they had enjoyed the workshop, but more significantly that they were ready to embark on a learning experience for which they had long held a deep desire: they had been motivated to make a start. Other participants commented that they would use the information sheet when working with clients and with younger members of their own families.

Many of the desired learnings that people described were work-related, such as:

- Learn how to create options instead of just pushing for the "right" answer.
- Learn to write articles for journals that will promote the caring work we do.
- Learn how to manage the negotiation process with various funding bodies so that I can be better supported in my work.
- Learn how similar Australian organizations work so that I can be innovative.
- Learn how our emotions influence the way I think, so that I have a better understanding of myself and others, and can use that knowledge every day.
- Learn about the different types of motivation and how they are created, so that I am better equipped to assist people in tackling their challenges.

Interestingly, there were also non-work learning intentions such as:

- Learn how to do Chinese calligraphy properly.
- Learn how to grow vegetables so I can be more self-sufficient.
- Learn about architecture so that I can appreciate old and modern buildings.
- Learn how to properly use the Single-lens reflex (SLR) camera my wife gave me for my birthday.

Lessons Learned

It is possible to use a heutagogical approach to introduce people to the ideas and practices of heutagogy, even when they have had no previous exposure to this topic. What worked on this occasion was the opportunity to initially provide everyone with a common learning experience (ostensibly a fun activity, but with a serious intent) during which several emotions, both positive and less-positive,

were elicited. This new experience created an atmosphere in which people were confident about revealing to others their own learning desires, and in accepting suggestions from colleagues as to how their learning could be advanced. For some, motivation may ultimately flag, but hopefully for others, the defining of a desired learning path and encouragement from colleagues will bring immense satisfaction – and the desire for further learning.

Further Resources

Copyright of both versions of the experiential Deedeekun was originally owned by Good and Better Publishing, Melbourne, Australia, but has now passed to Chris Kenyon. A complete kit includes facilitator instructions, sets of participant instructions, and sample participant answer sheets; Lego blocks are not provided. Kits can be ordered from Chris Kenyon, Cavanagh House, Cavanagh Close, Googong NSW 2620, Australia. Email address is chriskenyon136@gmail.com.

16 APPLYING HEUTAGOGY IN ONLINE LEARNING: THE SIDE MODEL

Eric Belt

Summary

This chapter describes the SIDE model as best practice using a heutagogical approach in online learning. SIDE is an acronym for Students, Instructors, Design, and Experiential learning, and suggests a way to move from the informal to formal learning context where there is a requirement to do so. Institutions, instructional designers, and educators can use the model to adopt a heutagogical approach to learning and perhaps increase retention rates in the online learning environment. The SIDE model describes the changing roles and dynamics of students, the reassessment of instructor control, the fundamental principles of heutagogical instructional design, and the experiential factors to consider in teaching and learning in this way.

- *Things to consider as you read this chapter:*
- *Heutagogy occurs in both formal and informal learning contexts*
- *When learners achieve an autodidactic approach to their learning, heutagogy comes into use*
- *Learning, and the design of new technology, can both be seen as individualistic enterprises; online education needs to cater to such individualism*
- *The SIDE model represents a way to increase the value proposition of online education.*

Introduction

Heutagogy is a 21st century approach to learning that opens up doors to new ways of thinking and conceptualizing the exchange between teachers and students in online learning environments. The principles of heutagogy (see Chapter 1) draw from a number of learning theories that are useful for online learning. In particular, self-determined learning recognizes elements of the online learning experience such as learner autonomy, motivation, and readiness. Moreover, double-loop learning, universal design, and non-linear approaches are all characteristics of heutagogy that can be found in online learning. Given the global impact that technology and the Internet have had, it is possible to conceive new ways of facilitating the learning experience. The SIDE model conceptualizes such a new approach and describes the process of moving students from informal to formal heutagogy in an online learning environment.

Moving From Informal to Formal Learning Contexts

Heutagogy describes both formal and informal learning contexts, and it is easy to overlook an important distinction between the two. Informal learning is often unaccredited, while formal learning has the potential for accreditation. People learn informally from the moment they are born. From the ability to learn a language to higher order cognitive processes such as the ability to think abstractly, this

informal learning is a natural phenomenon. Formal education is a social construct that was designed for mass education primarily to meet the demands of the industrial revolution. There is a popular misconception that formal learning environments are necessary to enhance or improve an individual's ability to learn. Formal and structured learning environments, based on traditional pedagogy, tend to focus on the collective rather than the individual learning journey. While both individuals and groups can learn in this way, there is no theory that implies people should learn in this way, or that this way of learning is ideal.

The value proposition for formal education is unique to everyone who chooses a structured path to learning, and not everyone has the same reasons for seeking formal education. That said, the goal of formal education should be to tap into the natural way that people learn in order to improve the quality of education.

Informal learning in this chapter is meant as learning that occurs at any time, in any place. Formal learning, on the other hand, is learning that occurs in a structured context. The focus here is on post-compulsory education where structured online learning is most common. There are characteristics of online learning, online learners, and the online learning environment that make it desirable to use the principles of heutagogy in online learning; there can be a natural progression from informal to formal learning.

Defining the SIDE Model

The SIDE model is a way of supporting heutagogy in the online learning environment. SIDE is an acronym for Students, Instructors, Design, and Experiential learning, and each component is described below:

Students (S) – In this model, it is paramount to recognize that the student is the center of the learning design. Twenty-first century learning requires an understanding that students have far more control of their learning journey than ever before. Personalized learning environments and the ability to choose how and where they receive instruction have great potential in the online learning environment. Provided that there is easy access to information and skills, students should be able to connect their own tools and resources in a way that is unique to their needs and their learning style. The structure of the online 'classroom' needs to facilitate this process through using heutagogical principles, particularly those relating to constructivism and connectivism.

Instructors (I) – Perhaps the most difficult part of applying the principles of self-determined learning is redefining the roles of instructors. Instructors are no longer seen as the sole or proprietary knowledge source in education; rather, they should represent the ultimate form of student support in finding the correct answers and developing deep, critical thinking skills. As Hase and Kenyon (2007) succinctly state, "learners create the learning map, and instructors serve as the compass" (p. 59). Instructors need to change their current ideas of what 'learning' is, and what their role as 'teacher' is. They need to agree on a curriculum and assessment in consultation with the students. The heutagogical approach is different because the

relationship between instructor and student changes to what Blaschke (2012) labels "learner-defined learning contracts", whereby instructors present information resources and the student then chooses the conditions of his or her learning (p. 64).

Design (D) – Instructional design needs to consider the best possible ways to nourish the learning process. There are a myriad different ways to approach assessment and the curriculum in the online 'classroom'. Students and instructors need to agree upon the design of the course, to encourage a heutagogical framework. The design of an online course should allow a degree of search, exploration, and discovery where students can explore their natural curiosity and have the ability to apply this in the online learning environment. A heutagogical approach to learning requires a shift in instructional design to encourage learning approaches through Universal Design for Learning (UDL), non-linear learning, double-loop learning, and self-directed learning.

Experiential Learning (E) – Students should be in control of their learning journey. The instructors and designers should help students access the range of knowledge sources they are seeking. The context of the learning may be controlled by the curriculum but the learning process is not bound by it. The "E" in this part of the model exemplifies the idea of experiential learning, in which learning is an individually conscious endeavor, devoid of labels, stereotypes, and definitions.

Applying the SIDE Model

The SIDE model conceptualizes a way to think about how we learn in both informal and formal contexts. The key principle of heutagogy is that students are at the center of the learning process, and they are capable of seeking out the requisite knowledge and skills from any source available. Students have questions, and they find the answers they need in any way possible; this practice occurs constantly and is labeled as informal heutagogy or Version A (Figure 16.1). When students decide to enter a formal learning environment they continue to seek-out the requisite knowledge but the process is designed to some extent and is called formal heutagogy or Version B (Figure 16.2).

The SIDE model represents a way to move self-determined learners from informal to formal learning contexts. It is suggested that online courses designed using the SIDE model can keep students engaged in their learning journey. The SIDE model combines the desires of the student – seeking knowledge – with the goal of the institution – providing education. Attrition rates in online education are sometimes a problem: students may feel isolated or disconnected, they experience technical problems, and some have unrealistic expectations (Lowe & Cook, 2003; O'Regan, 2003; Thorpe, 2002; Willging & Johnston, 2004). However, it has been shown that careful intervention may improve retention (e.g. Duff & Quinn, 2006). The SIDE model is a way for online education providers to use the principles of heutagogy to possibly encourage student retention.

Figures 16.1 and 16.2 depict the SIDE model and the best practice of moving from the informal version A to the formal version B of heutagogy. Informal

heutagogy, version A, places the learner at the center of the learning design as an autodidactic learner. The learner seeks knowledge, questions, and answers through various knowledge sources. In this version, the knowledge source can be anything from an application, to a mobile phone, to a computer, to a friend, or to a massive open online course (MOOC): the interaction with the knowledge source is usually unique to each individual learner. Formal heutagogy also places the learner at the center of the learning design, but as a bound autodidactic learner. Being a 'bound autodidactic' means that there is structure and control for the student in the learning process. In formal learning, the students seek knowledge from dedicated knowledge sources including, but not limited to, an online, classroom, college, institution, or university environment. Dedicated knowledge sources are places where students and teachers have, as a minimum, a pedagogical exchange; a starting point wherein heutagogy can grow and develop.

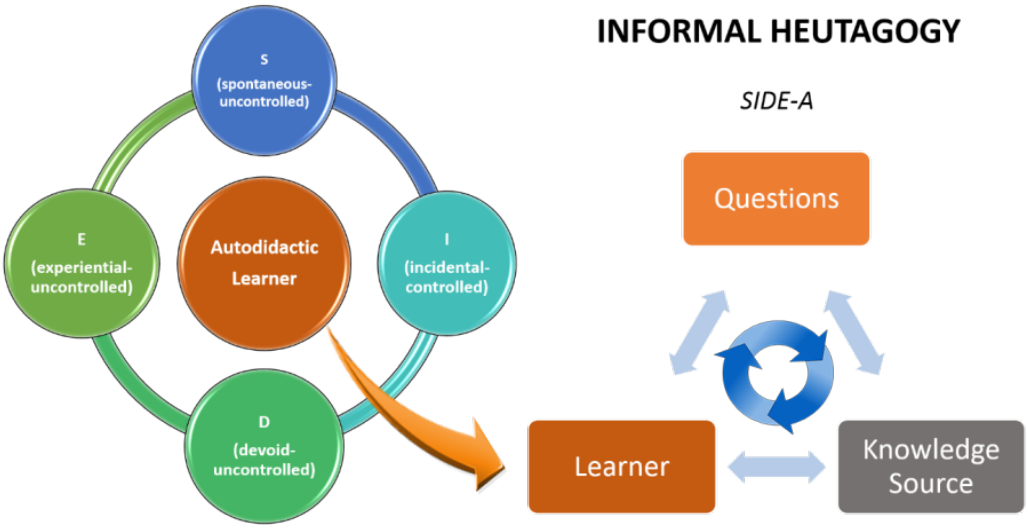

Figure 16.1. SIDE A: Moving from informal to formal heutagogy

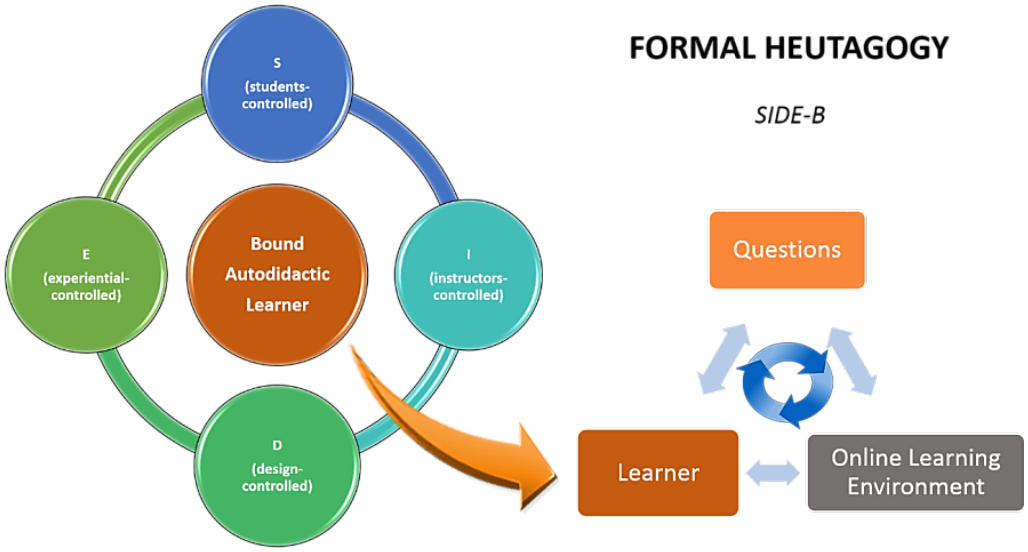

Figure 16.2. SIDE B. Moving from informal to formal heutagogy

It is important to note that not all online learners in the 21st century are automatically autodidactic. There are two learning contexts to consider informal and formal learning environments. Informal learning occurs in everyday life, at any time. There is no apparent structure or control to the informal learning environment. Conversely, formal learning occurs in structured and controlled learning environments. Moving students from informal learning to formal learning creates added benefits for both the student and the organization creating the learning environment. Version B reinforces the students' natural way of learning and helps bolster autonomy, self-direction, and self-determined learning. The organization using version B may be ahead of its competitors by using cutting-edge learning theory to support design, and perhaps increasing the chances of student retention.

Imagine an aspiring musician who wants to learn more about music theories, techniques, and so on. The musician wants to become more knowledgeable. When the musician taps into known resources for the requisite knowledge (phone, internet, friends, and fellow musicians) this is an example of autodidactic learning. In the SIDE model, this occurrence is an example of informal heutagogy (version A) where students engage in an unstructured autodidactic approach. When the same musician then seeks out the requisite knowledge in a structured online learning environment, he engages in a structured autodidactic approach to learning. In the SIDE model, this change is an example of formal heutagogy (version B). In this example, the musician begins by engaging informal knowledge sources and then moves into the online learning environment and engages formal knowledge sources.

Instructor as Guide

In learning theories such as constructivism, connectivism, and the community of inquiry, there is a central tenet of redefining the role of the instructor in the learning process. King (1993) labels this transition as moving from "sage on the stage" to "guide on the side" (p. 30). In order for heutagogy to work, instructors must let go of most of their perceived control in the students' learning or development. However, there are aspects of curriculum and competency attainment that are partially the purview of the teacher. This is not to say that instructors are obsolete, rather that instructors change from being seen as a knowledge source to being a support agent in student development.

Using the self-determined learning approach, combined with positive feedback and support, is a recipe for developing capable people. In the heutagogical model students are engaging in learning based on self-interest. Instructors (using best practices) then encourage the students to find a topic of interest and complete an appropriate assignment. Using positive feedback and assessment methods, the instructor can boost student confidence and thereby enhance student capability.

Discussion

Benefit of the practice

A heutagogical model is a democratic one; it may expose online learners to a way of learning that is completely different from traditional methodologies which they have previously experienced. By opening up choices for learning and allowing learners to choose and discover their own learning journey, the model creates a situation where the heutagogical learner can become capable, empowered, and the learning is open-ended. Once this way of learning instills confidence in the hearts and minds of online learners, there are limitless possibilities. Hopefully, heutagogical learners have such a rewarding and positive experience that they continue to explore concepts and topics of interest long after the online classroom is over. Learners become self-aware and free to choose learning based on their own personal leaning needs, likes, and dislikes.

Challenges to the practice

In spite of all the positive benefits of implementing the heutagogical model and developing capable students, there are some obstacles. Facilitation, institutional culture, time, and assessment are all factors to consider before implementing heutagogy. Facilitation and culture relate to an academic institution's approach and design for online education. Not every institution's learning culture is conducive to the heutagogical approach. Online education providers need to assess their ability to use heutagogy in distance learning settings, and more importantly, need to assess the institutional culture surrounding teaching and learning in this model. Nevertheless, adopting a heutagogical approach will provide students with greater opportunities and increase their capabilities: and the education institution may have the advantage of increasing retention and taking a lead over rival institutions.

Conclusion

Heutagogy informs many of the philosophies of online learning theory, characteristics of online learners, and principles of online instructional design. Many people currently use the online environment to meet their informal learning needs and are already accomplished self-determined learners.

Incorporating heutagogy in online learning environments will benefit the student, the instructor, and the institution. Students become enthralled with their learning, they are motivated to learn, and they take control of their learning journey. When the student is self-directed and self-determined, pressure lifts from the instructor. The instructor can then focus on encouraging students to find their individual learning pathway. In pedagogical instruction, teachers expend a great deal of effort in developing motivation and interest. Ideally in heutagogy, it is the instructional design that builds and fosters the motivation of online students. Institutions stand to gain from this model because it reduces waste (Bhoyrub, Hurley, Neilson, Ramsay, & Smith, 2010). The principles of heutagogy applied to online learning

environments create a more direct relationship between student goals and institutional offerings.

The SIDE model details how an understanding of students, instructors, and instructional design can bolster the application of heutagogy in online learning. Students are learning in new ways, with new technology, and internet access. As current technology is designed individualistically, then educational institutions should also adapt the student-centered model for learning; it is a natural extension and progression in education. The SIDE model embodies this transition as a best practice for incorporating heutagogy in online learning.

Lessons Learned

The SIDE model was developed after a review of current literature and an understanding of successful online learning practices. The principles of heutagogy encourage autonomous, self-directed, and self-determined learning.

The model can be a selling point that an online education provider can offer to incoming students – the ability for students to use their natural, informal inclination for learning in formal settings and thereby earn a degree or substantiation. Combining individual self-interests with the formal learning constructs is now more achievable than ever before. Online institutions that can leverage ability, catering to student needs and self-direction stand to gain the most via higher retention rates and a push towards online learning.

On a personal note, I never considered myself to be a self-determined learner. When I enrolled in graduate school I wanted to further my career prospects and I had a vague interest in instructional design. After my first course I developed a passion for self-determined learning. That course was taught online by Lisa Marie Blaschke and was my introduction to heutagogy. This introduction changed the way I viewed learning and reinforced my desire for learning. The approach has given me great confidence and reinforced the belief that not only I can learn anything, but that I also know how to find the desired knowledge.

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Further Resources

The SIDE model comes from a review on current literature related to learning theories, instructional design, online students, and online instructors. Heutagogy is a relatively new theoretical construct in education, and there are few quantitative studies on the effective of a heutagogical approach. Therefore, is important to note that the SIDE model is purely a conceptual model based on qualitative analysis. Heutagogy requires more quantitative and qualitative research and analysis to further the development and understanding of the approach. Ideally, quantitative and qualitative studies will confirm that the SIDE model is an excellent way of introducing heutagogy in online learning.

Case Studies:
http://ascilite.org.au/conferences/wellington12/2012/images/custom/cochrane,_thomas_-_heutagogy_and_mobile.pdf

The Autodidactic Press: http://www.autodidactic.com/index.html

Training the Trainer: http://www.ica-sae.org/trainer/english/index.htm

APA- Self-Determination Theory: http://www.apa.org/research/action/success.aspx

Learning Theory Summaries: http://www.learning-theories.com/

17 ENGAGING THE WIDER COMMUNITY

A Heutagogic Journey Made by a Heutagogic Learner to Develop a Heutagogic Project

Mark Narayn

Summary

This is the story behind the design of a simple, small-scale project that I am about to start. It is an attempt to mix self-determined learning with the fun involved in discovering new, unexpected topics, all within a group context that is driven by the learners.

Introduction

This chapter is about an intellectual journey I am in the process of making that will lead to a practical project. Like most such journeys, it does not follow a linear route, but is the slow building of several disparate strands that have gradually come together. I have always been a bit obsessive about following my own path: trying out and testing things for myself and seeking out opposing viewpoints, just for the fun of the diversity. When I first found out about the concept of heutagogy a couple of years ago, much of it seemed to fit in with this, and so I have been drawn to it as something I wanted to explore further.

Heutagogy is rather like breathing – both are natural human functions. Knowing a bit more about them and the context in which they exist, allows the practice of doing them to become deeper and more efficient. I am interested in developing heutagogy in those people who have been educated out of it and would never be interested in reading a book such as this, and for whom the very word *heutagogy* is a barrier.

Disparate Threads and Their Impact on the Project Design

The design for this project has evolved from several disconnected observations, conversations, research and thoughts. In this chapter, I outline the five main, independent threads that have coalesced to act as triggers for this project.

The Initial Idea

The initial idea for an independent learning project was born from an interest in creating a liberal arts style course for adults who were not in college or university. I've always liked the idea of liberal arts university courses in the USA, where a wide variety of topics are studied. Many of these courses tend to be more about general self-development, rather than specific subject specialism. However, they have come under a lot of criticism for not having enough depth in any one

discipline. I believe that one of the strengths of liberal arts is the opportunity to discover and explore new topics.

In my own learning, there have been topics in which I had no initial interest. But in a few cases, once I had the opportunity to experience more about them in the company of an enthusiastic guide, my interest grew enormously. Rather like a song that initially makes no impact, but upon several subsequent listens, grows to be a favourite.

As far as I was aware, there was nothing like this sort of liberal arts course that was available to adults who were not in university – especially in the UK. But as I was designing it, this initial idea started to morph and extend. I hadn't heard of heutagogy at this point, but knew that I wanted to push this liberal arts idea further along, to make it more learner-led. The design of this project is the result of that extending.

Growing Discomfort

Over the last several years of teaching in Further Education (FE) and University in the UK, I have become increasingly worried about the entire approach that underpins the educational institutions I have seen. There are so many excellent teachers and staff who work incredibly hard to provide their students with a quality education. The problem seems to be the dysfunctional system they work in, the continual changes brought in by government, and the outdated measures that are used to define success. Over time, some teachers have accepted it as something they cannot change, while others have bought-in to it because they have become embedded in the ethos behind it. So gradually, it all becomes normalised and accepted as obvious common sense.

The teachers I know are so busy and pressured that their focus only seems to be on the detail of delivery, rather than the problematic context in which they work. So when, for example, a primary school head explained to me how they train their teachers to only ever hug a distraught child from a sideways-on position, so that they do not have issues with safeguarding, she could not initially understand why I found the idea both ridiculous and dehumanising (especially for such a young age group of children).

It was not that we had widely differing opinions on the likelihood of harm, or hugely different perspectives how to balance the potential of risk, against the importance of allowing teachers to show their compassion and humanity in a natural way, that was the issue. It turned out that because it had been handed down as a part of the system, (along with many other, ever changing mandates) she had just accepted it. She was too busy focusing on the details of implementation, to step back and ask: why are we doing this in the first place?

A few years ago, I read Elizabeth Pisani's (2008) book The Wisdom of Whores, about the drugs and sex trades, and responses to them. What it demonstrates over and over, is that perspective is everything, and what can seem to make perfect sense from one point of view, can be total madness from another. More

recently, I heard a radio interview, in which Brian Eno (2010) said: "details are easy to deal with, whereas to be able to step out of the situation and look at it in a bigger way, is hard to do" (quote at 1'10").

These approaches interested me, as I wanted to step back from the detail of teaching, to get different perspectives and ask questions around what the function of an FE (technical) college, or a school, or a university should be in the 21st century. Is it really just about chasing funding and encroaching on each other's space to gain *more customers?* These *community-based* institutions seem to be losing their identities in their commercially-driven financial scramble. As the head of one large FE college told me: "we follow the money".

We are still at the beginning of the social revolution that has been fuelled by the internet. Our education systems need to be flexible and agile enough to keep up with the speed of the deep social changes and the unknown future we have entered. But I imagine that it is tricky to fit this in with an outcome-driven, short-term financial model, built of necessity. Especially when traditional perspectives on what constitute *success* and *failure* are so deeply embedded.

I recently attended a conference at a highly regarded university. The conference was held in a new (only just finished), state-of-the-art building. The main space inside was a large lecture theatre where 450 fixed, tiered seats were laid out in rows, all facing a podium at the front. *The guru delivering to the humble apprentices* approach. Is this really what modern design for an educationally agile future should look like?

My discomfort with the current mainstream ethos, has led me to explore alternative approaches. Those that might be thought of as educational versions of Clayton Christensen's (2000) disruptive innovation. One example is well-illustrated by Dougald Hine's (2013) talk on the gradual side-lining of universities (in their current form) as potential students start to question the value of a degree. Another example is the work done by Howard Rheingold (2012) and the five 21st century digital literacies he has proposed: Attention, Participation, Cooperation, Critical Consumption (crap detection), and Network Awareness. I want to build these into the project, as fundamental skills that will be naturally developed as a consequence of taking part (rather than being explicitly *taught*).

I also want the project to put the learners onto an equal, more democratic footing with the facilitator (no gurus), and have learning spaces that encourage this idea (King Arthur's round table type setups perhaps?) In addition, I would like the group structure to be diverse enough to generate several different points of view, so that the learners can experience other perspectives.

Being Told

In my experience, an increasing number of new learners who start my college classes, want to be delivered to. They do not want control over their learning, and it is difficult to move them to a position of autonomy (Dick, 2013). This is partly because there is a comfort in *being told*. An abdication of responsibility to a higher

power. An expert guide to follow in an unknown land. A wise, benevolent dictator, or a good parent.

To add to this, the school system they have come from has often comprehensively trained out any hint of heutagogy, and it can be very difficult for them to re-embrace it. More aspects of what used to be common sense or an obvious part of living life as a human being, are being packaged by institutions and sold back to us as a list of *guidelines* to follow. It's a formulaic version of humanity, and avoids the need for thinking and learning from mistakes. Just follow the rules and it will be fine – if it isn't, then it is someone else's fault. However well-meaning this approach may be, it only promotes learned helplessness. This is often underpinned by a risk-averse culture. Fear breeds obedience, and irrational fear breeds a craving for certainty.

The Nazi party's ability to persuade and move intelligent people, bit by bit, until they were happy to carry out inhuman acts, was underpinned by irrational certainty (Bronowski, 1973). As Richard Feynman (1981) puts it: "I can live with doubt and uncertainty and not knowing. It's much more interesting to live not knowing, than to live with answers that might be wrong…… but I'm not absolutely sure of anything" (quote at 0' 5").

Heutagogy breeds self-reliance, questioning and curiosity. This project needs to allow the learners the space and permission to play with ideas and explore the real world and to realise that, unlike exam questions (and soap operas) where everything is tied up in a neat package, the best solutions are usually messy compromises that are the least bad option. Out of this should grow a greater comfort with uncertainty. So it is important that the learners have control over what they want to learn and how they want to learn it.

However, within this, the distinction needs to be made between *training to learn a skill* and a *liberal education* (Illich, 2002, pp. 16-17). *Learning a skill* is often best done through practising and can be most effectively learned by practising at the point where mistakes are beginning to be made (Coyle, 2009). Good coaching, self-correction, simulators, and rote learning can be very effective with this. But it is important for mistakes to be seen as part of the learning process. *Liberal education* is where "what ifs?" and open thought patterns take charge. Everything becomes more uncertain and nebulous. Questioning, dialogue and subversion of established dogma hold sway. Illich (2002) argues that schools confuse these and are not very good at delivering any of them. As much as is possible, I want this project to be designed so that both *skill training* and *liberal education* can be catered for.

The Power of Groups

In 2013 I attended a workshop run by Tessy Britton. She had our group of 10 people play an interesting game – there was a large deck of cards and on each one was written a skill needed to run a community. So one card had "drive a tractor", and another had "complete financial accounts", or "grow food". The game

involved the group sorting the cards into two piles. One pile for all those skills that could either be done by someone in the group or by someone that they knew personally. The other pile was for skills that could not be done by any of the group or their personal contacts. I have played this game several times with other groups of 8-12 people, and always (so far) with a similar result: over 80% of the cards end up in the pile of skills that can be done by the group or their personal contacts. Another example is Sugata Mitra's (2013) *Hole in the Wall* experiments with children, which illustrate the learning power of groups in a heutagogic setting. One result that I found particularly interesting was the significant increase in learning when external "admiration and encouragement" was provided.

For the last few years I have attended (when I can) a weekly meet-up in London called *Everything Unplugged (EU)*. We have informal, convivial discussions (rather like the British coffee-houses of the 17th century), loosely based around education and learning. It is lucky that those who usually attend are comfortable with robust discussion in this atmosphere. But most important of all, is participants' willingness to listen and have productive dialogue, despite their very different views and opinions. EU has given me the space in which to explore ideas, be challenged, and learn a huge amount. It has been a very heutagogic experience and a major trigger for this project.

As a result of these experiences, I have decided that one of the cornerstones of this project is that it should be built around group learning. I believe in the statement: *learning is a social activity*, and that (under the right conditions) a group has the potential to be far more than the sum of its parts. Of course this leads to an interesting conflict I need to cater for – how can individual members be following their own heutagogic path if they are working within the context of a diverse group that has competing agendas?

A Chance Conversation

In January 2011, I was talking to a friend about a *wine* course he had recently attended. The course had 10 people on it. All were intelligent, highly educated professionals in their 40s/50s. I asked what would have happened if they had arrived for their evening class in the college, but the teacher had not turned up. To my astonishment, he said that it had happened once, and they had all simply gone home! Despite their education and life experience, they were still working on the assumption that without the teacher, there was no point in staying and no way forward. No point in working together to pool their knowledge and experience or to use the internet to explore further. No point in going to a local wine bar to try different wines.

And yet, my friend is, by nature, a voraciously heutagogic learner who is incredibly competent at finding out what he wants under his own agenda and collaborating with others online. After the wine course ended, a small group of them did continue to get together to explore on their own. It's as if the concept of being in a *group* in the context of a course had put them all in the mental space where without a leader they were directionless. This made me curious about introducing

people to being part of a group on a course where the objective was to explore under their own mutual agenda, rather than being led. I wanted to play with the usual concepts of a course.

I also want the group to reach out both socially (so the group would have to engage with the wider community), and time-wise (encourage the group to continue on after the end of the *course*).

Project Structure

Description

This project will initially take place in my hometown of Norwich, UK. The plan is to set up groups of between 6 to 10 people who will embark on a learning journey (I'll call it a *course* for now). Each person in a group, chooses a topic area that she or he would like to learn more about. An equal amount of time is allocated for each person's topic, and the group decides on the order in which these topics will be covered (or the topics may be done in parallel). In each of the individually-allocated time frames, the whole group works together to learn about one of the agreed topics, before moving onto the next person's one. The facilitator helps ensure that each topic gets equal time, so that the shyer members of the group do not get dominated by the louder ones.

So the group as a whole is following a heutagogic path. Individuals have a reserved period of time where they can use the resources of the group to follow their own path, but in return, they will help each of the other group members with their own learning quest. This will require negotiation with their peers and will encourage them to explore new, unexpected topics. Rather like listening to music on the radio – you know you like music, but you don't know what song is coming next. This is the compromise solution to the question posed earlier, about how individual heutagogic agendas might be combined within a diverse group working together.

Every group will have a different set of learning adventures, as the content will depend upon those in the group. Of course, many things cannot be learned this way, and sometimes the group won't succeed in their initial objectives, but the real learning is in the act of trying, and in being innovative, persistent and resilient in the trying. As part of the *course*, each group will be required to pass on what they've discovered or made, to the wider community. This can take any form they want, but the group cannot sit in isolation, they must participate beyond their boundaries, and share their discoveries.

It will be up to the group to decide on the learning space and layout that best suits them, and this can vary for each meeting, if desired. A facilitator will help ensure that the underlying ethos is adhered to (participation, cooperation, ensuring all members of the group have a voice, and the sharing of whatever they produce with the wider community) and will provide resources and ask questions to encourage critical thinking, but will not lead the group or solve any group problems.

I am considering giving this project the name: *Thinking Heads*, partly as a tribute to the band Talking Heads (who were very innovative and had a lot of energy), and also because it give a good description of the process. However, this name may sound a bit *corporate*, which is not the objective. The assumption is that these will be face-to-face groups, but there is no reason that they could not be done online, (although in my experience, face-to-face sessions create more powerful commitment).

Outcomes

Life ultimately means taking the responsibility to find the right answer to its problems and to fulfil the tasks which it constantly sets for each individual. (Frankl, 1985, p. 98)

Heutagogy is about learning to pay attention to your passions and interests, and to develop them. Also one realises that these passions and interests have great value, even if it's not financial value. I believe that this will be one of the main outcomes from this project. In addition, learners will have the opportunity to explore and pay attention to new topics that they may not have encountered before.

The participation and cooperation involved in working with others and learning through their own initiative will hopefully breed greater confidence and self-reliance. It will also demonstrate the power they have as a group when working productively together. Receiving responses from the wider community when they share their work, should also boost their confidence and help them realise that they do have a voice and that they are connected to the world.

If the groups are diverse enough, there should be a range of viewpoints and sharing of disparate resources, giving the participants a chance to escape their Google Bubbles, and to improve their ability to **critically consume** information they find online. It is hoped that the course will just be the starting point and that after it ends, the group will continue in some form.

Lessons Learned

This design process has shown me that initial objectives tend to be quickly extended and sometimes replaced as a project evolves. It has been a huge learning curve that I am only at the start of, but the freedom to follow my own heutagogic path has been key. Although I suspect it will be difficult for many adults to step back from and question the accepted dogmas of the educational system they have been embedded in, I believe that this is changing. Although it has not filtered through to the age-groups I teach, it seems to me that the young children I know are more inclined to question things, are better at multitasking, and consider it normal to participate rather than merely observe.

There are a host of potential problems that will no doubt need addressing with this project, such as: engaging people in the first place; learning how to deal with dysfunctional groups; groups learning to cope with failure; and people wanting the

comfort of being *taught* a specific curriculum. I am also aware that as soon as the project is actually run, many of the design aspects will end up changing. So it may be that I have over-designed it and should have just started the groups running and then responded to the feedback. However, I was keen to think it through and have a clear underpinning ethos to support it, and that was the main objective here.

I am about to start this approach with a proactive youth worker in an area of Norwich, and I will post updates on my blog which will be running soon: www.marknarayn.com.

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Further Resources

The Common Room:
http://www.thecommonroom.so/

CROS – Self directed leaning university in Bucharest:
https://www.facebook.com/crosro

Everything Unplugged Meetup:
http://www.slideshare.net/fredgarnett/everything-unplugged-learning-conversations

Fred Garnett's blog:
http://heutagogicarchive.wordpress.com/

Fred Garnett Slideshare on "Heutagogy and the Craft of Teaching"
http://www.slideshare.net/fredgarnett/heutagogy-the-craft-of-teaching

Heutagogic information:
http://heutagogycop.wordpress.com/

Montessori Madness – Trevor Eissler:
http://www.youtube.com/watch?v=GcgN0lEh5IA

Open Space Technology:
http://openspaceworld.ning.com/page/new-to-ost

Orpheus Orchestra:
http://www.orpheusnyc.com/about/musicians

Paulo Freire:
http://www.youtube.com/watch?v=aFWjnkFypFA&feature=related

Sarah Amsler – audio talk on Boundary Work in Education (2012):
http://www.livescribe.com/cgibin/WebObjects/LDApp.woa/wa/MLSOverviewPage?sid=k7JkXPJxblk7

The Self-Directed Learning College, Brighton:
http://college.selfmanagedlearning.org/

The Social Science Centre, Lincoln:
http://socialsciencecentre.org.uk/

Spacemakers – a talk by Dougald Hine:
http://blip.tv/dougald-hine/make-it-happen-the-space-makers-approach-5382568

TED talks, from a time when (in my opinion) the TED platform was much more interesting than it is now.
http://www.ted.com/talks/dave_eggers_makes_his_ted_prize_wish_once_upon_a_school

http://www.youtube.com/watch?v=D0MVsJhTdSQ

http://www.ted.com/talks/howard_rheingold_on_collaboration

http://www.ted.com/talks/barry_schwartz_using_our_practical_wisdom

Third Space:
http://opendesigncity.de/mission-statement

http://westminster.impacthub.net/

Too Much Too Soon Campaign:
http://www.toomuchtoosoon.org/

http://www.telegraph.co.uk/education/educationnews/10302249/Start-schooling-ater-than-age-five-say-experts.html