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Ongoing Networking for Talent Development

Taisir Subhi Yamin; Ken W. McCluskey

Time marches on … And it marches much faster, it seems, as we get older. It's truly hard to believe this is already the fourth issue of IJTDC. As per usual, we'd like to highlight a few items that are emerging from our ongoing International Centre for Innovation in Education (ICIE)/Lost Prizes International (LPI) partnership.

From the ICIE end, one development worthy of note is the fact that a new office has been opened in Ulm, Germany to house the organization's Headquarters. Just in time too, for ICIE personnel are gearing up in earnest for this year's International Conference, to be held July 1-4, 2015 at Jagiellonian University in Kraków, Poland.

There will be keynote sessions on *Embodied Creativity: Flexible Brains, Open Minds* (by Alessandro Antonietti, Catholic University of the Sacred Heart, Milano, Italy); *Creativity and Reflexivity* (Vlad Glaveanu, Aalborg University, Denmark); *Improving Intelligence – Changing Brain Activity* (Norbert Jaušovec, University of Maribor, Slovenia); *Enrichment, Games, and the Future of Education in a Digital World* (Linda Jarvin, Paris College of Art); *Questioning: A Window into Productive Thinking* (Lynn Newton, Durham University, England); *Stories of Transformation: Memories of a Global Citizenship Practicum* (Lloyd Kornelsen, Winnipeg University, Canada); *'The Life Expects' Learning Paradigm* (Gary Hunter, Winnipeg University, Canada); *Building on Resilience: Models and Frameworks of Black Male Success Across the P-20 Pipeline* (Fred Bonner II, Prairie View A&M University, USA); and *Habits of the Creative Mind* (Lorenzo Paoli, Novaxia, Milano-Italy).

There will be invited sessions on: *The Effectiveness of Cognitive Trainings* (Edward Nęcka, Jagiellonian Univeristy, Krakow-Poland); *Intelligence, Creativity and Achievement Motivation as Predictors of Outstanding Achievement of Gifted Students* (Andrzej Sękowski, Catholic University of Lublin, Lublin-Poland); *Creativity and Education: An Awkward Association* (Maciej Karwowski; Academy of Abnormal Pedagogy, Warsaw-Poland); *What is creativity? Scope, History and Utility of the Concept* (Michel Henri Kowalewicz, Jagiellonian Univeristy, Krakow-Poland); *Music in Movement - Movement in Music: Creative Activities in the Dalcroze Method* (Magdalena Stępień, UMFC Warsaw, AM Krakow, Poland); and *Interdisciplinary and Intercultural Approach to Creativity and Innovation: From Theory to Practice* (Min Tang, University of Applied Management, Germany). In addition, there are a variety of workshops, and breakout sessions on achievement motivation, assessment of creativity, cognitive training, curricular enrichment, problem-based learning, and other topics.

Once again, the University of Winnipeg (UW) will be front and centre at the Krakow event with Lloyd Kornelsen and Gary Hunter delivering keynote sessions drawn from their recent books on, respectively, international student teaching experiences and the power of educators to inspire their students to lead fulfilling lives. Further, Ken McCluskey, Karen Magro, Phil Baker, and Joe Goulet will offer a UW Forum on *Community Outreach and Servant Leadership in Higher Education*.

Next year's 13th ICIE International Conference will be held in Croatia (in partnership with the University of Rijeka) from May 26-29, 2016. And in 2017, the Conference will take place for the third time in France (at Université Paris Descartes) from July 4-7. More details are available on ICIE's website.

Publishing has been moving full steam ahead as well, with ICIE producing two new books in 2014 (i.e., Kornelsen's *Stories of Transformation: Memories of a Global Citizenship Practicum* and Hunter's *Life Expects: Educating Students to Lead Fulfilling Lives*). A number of other texts will be coming out very shortly, including *Expanding Voice and Vision in Literacy Education* (Karen Magro), *Lost Prizes: Identifying and Developing the Talents of Marginalized Populations* (Ken McCluskey, Don Treffinger, Phil Baker, & Alan Wiebe), *Middle C: Pedagogy for Creative Problem Solving* (Peter Merrotsy), and *Innovation Education* (Taisir Yamin; Ken McCluskey; Don Ambrose; & Todd Lubart). ICIE has also recently concluded eight years of editing, publishing, and funding *Gifted and Talented International*, the journal of the World Council for Gifted and Talented Children.

With respect to LPI, the 3rd annual *Lost Prizes*/ICIE Seminars will be held from July 8-11, 2015 at the University of Winnipeg. Together, Steve Van Bockern and Mark Freado from Reclaiming Youth International in South Dakota will deliver keynote addresses on *Healing Invisible Wounds* and *Responding to the Inside Kid*. Other keynotes will be on *Bullying and Violence Prevention* (John Hoover, St. Cloud State University, Minnesota), *One Great City? Adopting a Community Cultural Wealth Lens* (Marc Kuly, University of Winnipeg), and *Mind the Gap: Inequality, Inequity, and Indifference* (Jan Stewart, University of Winnipeg). More information about the Seminars can be found in Kari McCluskey's article elsewhere in this volume.

That's about it for now, other than to say that we're excited about the next IJTDC offering, our first special issue, which will feature a substantive target paper by Don Ambrose (Professor of Graduate Studies, Rider University and Editor of *Roeper Review*), and responses to it from several eminent scholars in the field. This provocative piece, "Borrowing Insights from Other Disciplines to Strengthen the Conceptual Foundation for Gifted Education," seems to be generating intriguing commentary from many quarters – we're certain the upcoming conversation will be relevant and thought-provoking.

From the Editor's Desk:

Creative Journeys: Inspiring Imagination and Innovation

Karen Magro
The University of Winnipeg, Canada

"When old and familiar things are made new in experience, there is imagination."
John Dewey, 1934 (Boydston, 1987, 2008. p. 271).

Welcome to our fourth issue of *The International Journal of Talent Development and Creativity* (IJTDC). Our ICIE conference last year at Descartes University in Paris, France provided a rich panorama of research in creativity and talent development from all corners of the world. Papers were presented in diverse disciplines and subject areas that included science and technology, engineering, applied medicine, psychology and psychotherapy, and literacy. It was interesting to listen to conference sessions that centred on ways to empower students and to encourage imagination and creativity. Encarta World English Dictionary defines imagination as "the ability to form images and ideas in the mind, especially of things never seen or never experienced directly." In his essay "Imagination Goes to School," Esbin (2007) explains that "the ability to imagine what doesn't exist is a primal skill. Our ancestors first practiced it when they envisioned a hand tool hidden in raw stone.

Consider winged horses … None exist in the biological world, yet from time immemorial we've depicted such creatures in story and picture" (p. 24). In contrast to Western societies that value empiricism, rationalism, objectivism, and materialism, many non-Western cultures (e.g., Tibetan, Bhutanese) have affirmed the power of imagination in its intuitive, spiritual, and mysterious dimensions. Values such as generosity, kindness, patience, and ethics, which form a unique set of beliefs and practices, contrast with acquisition and self-centredness (Clarkson, 2014; Diamond, 2012; Wright, 2006). Indeed, analytic psychologist Carl G. Jung (1964) emphasized that purposeful imagination is deeply embedded in the collective psyche and that it resurfaces in universal archetypes, myths, legends, and folk tales. Jung further observed the parallels between the ancient alchemists and the contemporary world of images and he concluded that the study of the alchemist's symbols would lead to a better understanding of contemporary people. The stone, for example, represents an "eternal" symbol of the self and the psyche. Jung explained that the universal appeal of stones across time and civilizations depicted in such items as monuments and statues, represent an enduring mystery and fascination. "[Individuals] have collected stones since the beginning of time and have apparently assumed that certain ones were the containers of the life-force with all its mystery." (Jung, 1964, p.221)

In this issue, Francisco Prado writes that "alchemical symbols transcend individual or culture-specific experience to become archetypal ... the investigation of the symbolism and imagery of alchemy goes beyond temporal constraints to study processes of psychological transformation, the inner process of individuation, and the human unconscious in the present time" (p. 5). Symbols and archetypes representing light and darkness, goodness and evil, and life and death surface in all art forms. By learning from ancient cultures and by embracing the power of critical thinking and imagination in positive ways, transformative advances in the arts and applied sciences can occur. Writers such as Isaac Asimov, Aldous Huxley, George Orwell, and Ray Bradbury had a visionary insight into robotics, the widespread consequences of war, and the erosion of the natural environment. In presenting the problems and challenges they observed in their own societies, these writers were challenging individuals to be alert and aware. Navigating the ethical boundaries of biogenetic engineering, the fragmentation of the family and community, the

devaluing of literacy, surveillance and control, alienation and loneliness, and the role of individual free will in societies that stress conformity and mass production are ever more present in the 21st century.

Despite the constraints of educational programs that neglect imagination and creativity over the "faculty of reason which is explicitly and assiduously cultivated," Esbin (2007) explains that students continue to apply their imagination artistically through poems, stories, music, painting, photography, and indirectly through service- learning ventures like volunteering in developing communities. As practitioners, theorists, and researchers, we need to work collectively toward a vision for humanity and the natural world that is hopeful and sustainable for future generations. Without cultivating empathy, compassion, and ethics, and without an underlying value for the planet, advances in science, technology, and engineering would lose their meaning (Global Challenges Forum, Geneva, 2012). Creativity involves the ability to visualize, to foresee, and generate ideas within a context of empathy and compassion (Osborne, 1963; Diamond, 2012).

The common bond that unified the ICIE presentations at Paris Descartes University in 2014 was a search for innovation as a way to improve the quality of life around the world. In response to a need for a more holistic, integrated, and democratic education that is aimed at addressing the challenges of globalization, the Global Challenges Form Foundation (GCFF), a non-governmental organization located in Geneva, Switzerland, organized a Transformative Education Forum (TEF) which explored conceptions of transformative education for the 21st century. The TEF identified that across educational levels and disciplines, there is an urgent need to develop a curricula that encourages creativity and critical thinking and a new approach to problem solving that will lead to greater sustainability and global peace:

> "We need new curricula that emphasize not only traditional skills, but curricula that will help develop creative, complex problem solvers and global critical thinkers …. These new models of education, besides having a focus on Science, Mathematics, Engineering, and Technology must also deliver an education that is international, teaches partnership skills, embraces diversity and focuses on Global sustainability if we are to reverse the ecological and human damage currently being imposed on the earth and its inhabitants. And, it must deliver this education, without prejudice, to all people; people of every race, gender, economic status, and religion." (GCFF, p. 2)

Creative and critical thinking do not occur in a vacuum. They are nurtured within communities that affirm and value uniqueness. As conceptions of learning evolve to include more dynamic, adaptive, and coherence-seeking and coherence-maintaining patterns, our perspectives of effective teaching and the learning environment can change to be more creative and inclusive (Davis and Sumara, 2011). We know that teachers make a significant difference in creating a climate that can promote either "surface level" (e.g., extrinsically motivated and oriented toward achieving external rewards and recognition) in contrast to "deeper level" learning that promotes perspective taking, divergent and critical thinking, and a transformative shift in thinking and behaving.

Carol Dweck (2007) makes a distinction between individuals that have a "fixed mind set" (there is a belief that ability and intelligence is "set" and that effort and persistence make little difference in learning outcomes) to those individuals that have a "growth" mindset. Such individuals are more open to change and new ideas. They set personal and academic goals that involve risk and effort; intrinsic rather than extrinsic motivation is valued. Dweck's ideas can be applied to larger educational contexts and society in general.

The popularity of STEM (Science, Technology, Engineering, and Mathematics) is viewed by many educators as a creative approach to bridge disciplines. In essence, STEM education "is an approach to learning that removes the traditional barriers separating the four disciplines and integrates them into real-world, rigorous, relevant learning experiences for students" (Vasquez, 2015, p. 11). The idea of STEM introduces "transdisciplinary" learning

where students are able to apply knowledge from two or more disciplines in order to undertake or to solve a specific authentic or real-world problem or project. Multidisciplinary and interdisciplinary studies are scaffolds that help students move toward more complex "transdisciplinary" learning.

The STEM approach can be a window to examine creative ways to encourage both self-directed and collaborative inquiry. Vasquez (2015) uses the metaphor of an inclined plane to describe the increasing levels of sophistication in terms of content knowledge and application that students would need to demonstrate. "At the bottom of this plane sits disciplinary teaching, where students learn the content and skills of the different students in separate classes.

At the highest point of the inclined plan is transdisciplinary integration" (p.13). The success of a STEM-focused curriculum depends upon factors such as: clear learning objectives and outcomes; varied educational tools and resources; the expertise of teachers and their willingness to collaborate with educators in different content areas; the prior knowledge, motivation, and skill of the students; and, effective assessment tools that provide learners with opportunities to demonstrate "evidence" of learning. The teacher as facilitator, mentor, designer, and content expert are emphasized in a STEM approach, and while this approach is complex and challenges, it offers new a promise in creative thinking and transdisciplinary learning.

Summary of the Papers

The papers that form this issue of the IJTDC reflect diverse journeys exploring a different dynamic of creativity, giftedness, and talent development. Collectively, they suggest that creativity and talent integrate imagination, intent, motivation, and action.

Roland Persson applies an interdisciplinary approach to analyzing creativity and conceptions of "gifted and talented" within a neo-liberally oriented knowledge-based economy. His article raises important ethical questions for scholars, teachers, and parents. Persson presents a critique of the emerging knowledge economy, the neo-liberal agenda, and the continuing move to superimpose a business framework on educational endeavours.

In an effort to be "efficient" and economically viable, spiritual values, emotional intelligence, and creativity can be eroded. Chris Rogers highlights the way that engineering can be an important aspect of our daily lives yet few individuals have taken an engineering class. Researchers have learned that engineering concepts can be used to help students solve authentic problems in their own communities by using the available resources. Students from diverse cultural groups can work together to explore creative solutions; examples of two such projects that integrate science, engineering, mathematics, and literacy are discussed.

In this issue, David Zejda and Ellery Canoy explore videoconferencing and Virtual Reality with a range of students in the Czech Republic. The potential of the information and communication technology in addition to the cultural differences between the tutors and the students influence the teaching and learning dynamic in intriguing ways. Implications for using technology in different educational settings is explored.

Herie de Vries, Christiane Kirsch, and Adrian Furnham analyze the relationship between creativity and personality in different cultural contexts. Personality factors such as openness to new experiences, extraversion, and a willingness to appreciate and integrate elements of new cultures are essential skills for newcomers trying to navigate a new culture.

Jill Forster applies the concept of creativity to everyday life.

Evgenia Cherkasova and Nicholas R. Raby present a model responding to the pedagogical challenges inherent in "Big Questions" courses.

Alejandro S. Bernardo explores creating teaching approaches on teachable cultural moments in English as a Second Language (ESL) classroom. His research explores the important way culture is disseminated in texts. Teachers play a valuable role as cultural guides and mediators who can help demystify the idioms and cultural contexts that are intricately part of language learning.

Florence Kabba encourages personal and literacy development in creative ways by

challenging conceptions of gender in texts and in life.

Lloyd Kornelson addresses the importance of global citizenship and innovation in education. Future teachers are increasingly choosing to work overseas in developing countries and in cultural contexts that may be starkly different from the cultures that they are familiar with. Being open to new experiences and possessing intercultural intelligence empowers teachers to appreciate, understand, and integrate new ideas from unfamiliar cultures.

Saigeetha Jambunathan and J. Jayaraman discuss the concept of giftedness and gifted education.

Felicity Andreasen explores the issues around testing for the selection of musically-gifted primary graduates to elite secondary school music programs.

Mazzoli-Smith and R. J. Campbell use a qualitative methodology to explore the perceptions of giftedness utilizing four working-class families in the northeast of England.

Piotr Gindrich and Zdzislaw Kazanowski present a qualitative study that shows the way drama therapy can be used to encourage inclusive education and creative learning among adults with learning challenges. The researchers identify six findings that have important implications for educators and policy-makers who wish to develop a more socially inclusive approach to gifted education.

In this volume, we include a number of reflective selections.

Lloyd Kornelson and Trevor Tebbs present their reflections on the recent ICIE conference held in Paris. Their observations assert the value of sharing divergent ideas on creativity and talent development with international researchers and educators alike.

Randy Kroeker reflects upon the importance of creative renewal in teaching. We often forget that as educators and theorists, we also experience challenge and change. In reflecting on specific experiences, a time of crisis can be an opportunity for transformative change. Francisco Prada applies psychological concepts from Carl Jung in a very creative way to shed new light on D. H. Lawrence's novel *St. Mawr*.

Book review written by Dorothy Sisk is also featured.

I would like to extend my appreciation to my colleagues who took the time out of their busy schedules to help with editing and revising these two issues: Don Ambrose, Val Mulholland, Beverly Brenna, Jocelyne Scott, Randy Kroeker, and Gary Evans. Thank you to all the contributors that make these issues, a unique volume.

I welcome your letters, research articles, literature review, tributes, and book reviews. I would like to thank all the contributors for these important issues of *The International Journal for Talent Development and Creativity*.

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High Ability and Dreams of Innovation and Prosperity in the Emerging Global Knowledge Economy: A Critical Analysis of Changing Orientations in Research and Practice

Roland S. Persson
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Abstract

Are the gifted and talented destined for greatness in a neoliberally oriented knowledge economy? This is undoubtedly an important question for scholars, teachers, and parents advocating the value of gifted education to policy makers and employers worldwide. This review of literature from a multitude of relevant disciplines attempts to answer this question in drawing from political ideology, economic history, human universal behaviour, and principles of social evolution to the extent that we currently understand them. The analysis showed that while high ability is well underway to take centre stage globally in terms of stakeholder interest, the analysis also suggested that hopes projected onto the highly able are often illusory. The social dynamics characterizing the knowledge economy appears unlikely to accept potential contributions of the highly able, since it is not in the nature of a neoliberal economy to offer the necessary conditions needed for creative and innovative efforts. Given that these conclusions are reasonably correct, clearly much of gifted education, its research and *raison d'être,* will need to be reconsidered and new objectives and fields of research be explored.

***Keywords*:** Giftedness; gifted education; talent, high ability; creativity; innovation; accountability; efficiency; talent management.

Introduction

Many, but not all, highly able children and youth have benefitted from the attention and intellectual stimulation provided to them by schools in a systematic way. Hence, where gifted education is available, going to school has been a successful venture for some (Matthews, 2006). Whether entire gifted education programs can be thought of as successful or not is more difficult to assess. Some researchers in the field say yes (Hany & Grosch, 2009; Steenbergen-Hu, 2011) while others are more doubtful (Craven & Marsh, 2000; Ziegler & Phillipson, 2012). How to define successful gifted education is a complicated matter considering the variety of remedial action constituting gifted education worldwide making the multitude of efforts, objectives, and actions taken difficult to compare. However, until recently gifted education in its many forms was mainly an effort of *empowerment* to aid and support children in school who had extraordinary needs for intellectual stimulation. These needs and interests were not necessarily met in regular school systems without targeted planning and specially trained teachers. These were then students with "unique characteristics, interests, abilities and learning needs" representing a wide diversity of characteristics and needs; students who had "a fundamental right to education [and to be given] the opportunity to achieve and maintain an acceptable level of learning" (UNESCO, 1994, p. viii). This somewhat idealistic understanding of school children—gifted or not gifted alike—has dramatically changed in recent years.

This article is a review of literature from a multitude of disciplines in search of an answer to a

question prompted by the on-going transformation in both education and global economy. Are the gifted and talented destined for greatness in a neoliberally oriented and globalized knowledge economy? This is undoubtedly a crucial question for scholars, teachers, and parents advocating the value of gifted education. This critical review and analysis of the literature attempts to provide a possible answer in drawing from political ideology, economic history, human universal behavior, and principles of social evolution to the extent that we currently understand them. First, the emergence of human capital and the framing of society in predominantly economic terms on neoliberal values are discussed. In the 21st century, mediated by the information technology revolution, the economy turns truly global and the interest of both business and policy makers worldwide is turning increasingly to highly able individuals, who more than other citizens represent efficient human capital. A database search was performed to chart to what degree the emerging link between high ability and economic growth is affecting research and scholars. A discussion follows focusing on human universals and the fact that, irrespective of known negative facts, humanity is prone to upheld and favor positive illusion. This characteristic has implications for how we understand the gifted and the talented. However great our projected expectations, they exist within the boundaries of evolutionary programming, limited free will and self-determination, and the imposing dynamics of human nature. The highly able are quite possibly our best hope for a brighter future. In concluding the article, the rationale for why they are unlikely to have such an impact on the world is discussed.

Needless to say, I cannot claim that my findings in searching for an answer to the stated question are in all aspects correct. Like every scholar, too have to weigh my conclusions and reasoning against received wisdom, common sense, experience, emerging logic, and the multitude of diverse theories, research results and their interpretations, published in peer-reviewed journals. I can with some certainty, however, claim that I am at least in part correct, and that I am appropriately pointing out a troublesome weakness in high ability research and practice: our general ignorance of how human nature, as derived from our evolutionary past, affects the social dynamics of society and its institutions. Harvard University's Stephen Pinker (2002) gave voice to this problem already more than a decade ago, and others have followed (e.g., Fernandez-Armesto, 2004; Kenrick & Griskevicius, 2013; Wilson, 2004). While my answer to the important question is frustrating at best, it is my hope that it will trigger further research and action to make our future brighter, more opportune, and in line with human nature. Let us not pretend that this does not exist! (Pinker, 2002).

The changing face of education

Gifted education is increasingly attracting the attention of economists and societal stakeholders and as a result gifted education has been given a very specific goal, namely to be *efficient* in comparison with the demands and stated needs of society (Abdulkadiroglu, Angrist & Pathak, 2011; Bhatt, 2011; Bui, Craig & Iberman, 2011; Davis, Engberg, Epple *et al*., 2010). Efficiency relates the outcome of a process to its input. A system is said to be efficient if a maximum output is obtained from given input, or if a given output is obtained with minimum input (Woessmann & Schuetz, 2006). While it is probably always of interest to any educator to know whether chosen methods of instruction are working and targets are actually reached, the framing of educational objectives, the means of reaching them, and their assessment in mainly economic terms, are all relatively new to education. Abbot and Mac Taggart (2010) observed that "education now has become micro-managed by the state so as essentially fitting with a new economic imperative of supply-side investment for national prosperity" (p. 257). The models for educational transformation have been borrowed from the corporate world and have the support of the market. Currently, moral goals of human development "are often combined with national hegemony and economic profit" (Sahlberg, 2010, p. 101). One way of securing and controlling the efficiency of education, making certain it lives up to standards inspired by the market, is to create accountability by regularly carrying out assessments such as PISA, TIMSS and PIRLS. The results of such assessments signal levels of economic potential for each country (Hanuschek & Woessmann, 2008; Pereyra, Kotthoff & Cowen, 2011; Rindermann & Ceci, 2009). Education worldwide is now framed in terms management, flexibility, benchmarking, production, competitiveness, responsiveness, total quality management, accountability, lean organizations,

control, target-setting, excellence, and so on (Astuto & Clark, 2005; Currie, 1998; Hamilton, Stecher & Klein, 2002; Sheehan, 1996; Thrupp & Hursh, 2006; Wilkins, 2012). In the words of the World Bank: education is being *upgraded* (World Bank Institute, 2007). Perhaps more importantly in this worldwide zeal for reforming all education towards efficiency, is the fact that students are simultaneously and increasingly less understood as individuals with "unique characteristics, interests, abilities and learning needs" representing a wide diversity of characteristics and needs (UNESCO, 1994, p. viii). In accordance with corporate management models they have become more like customers, production units, and investments. Their teachers are no longer instructors, mentors, and role models. They have by and large transformed into managers supervising and administrating quality and productivity making certain that set targets of excellent quality are reached (cf., Hill, 2006; Ross & Gibson, 2006; Sallis, 2002). In this new product oriented and efficient context, the highly able are believed to "… guarantee a constant reservoir of individuals who will later lead both … research and development, and education, thus continuing to propel recruitment of the community, the State, and humanity at large toward a knowledge-based economy" (Sever, 2011; p. 454).

The advent of human capital

Schools and education have more or less become globally oriented and market-influenced hothouses for *human capital* where each unit is held accountable for quality. Quality is rarely defined from within education, but rather from without according to the the values, needs, and dictates of the market (e.g., Sahlberg, 2010; Sallis, 2002). Theodore W. Schultz (1981), a 1979 Nobel Prize Laureate of economy, coined this term in the 1960s and defined it as representing the education, experience, and the abilities of an employee, all of which has *economic* value. The term also signifies that not all labor is equal but education can be used to improve "the quality of people" for economic benefit and profit. For this reason, to speak of human *capital* is, per definition, *dehumanizing*; that is, it is depriving people of their perceived dignity and individual uniqueness as they are construed as a means to another's end (Haslam, 2006; Haslam, Kashima, Loughan *et al.,* 2008).

Routine jobs, low-skilled and manual labor, are usually not considered human capital (Stewart, 1997). An increasing number of such jobs are, in fact, in the process of disappearing. They are progressively being replaced by automated technology where possible and when cost-efficient. In the United States alone 47% out of 702 officially recognized jobs are likely to be replaced by computerized processes within 20 years (Frey & Osborne, 2013).

In Sweden, being more sensitive to infrastructure change than the United States, 53% of such jobs are likely to become obsolete. Because of this on-going and quite dramatic re-evaluation and restructuring of global society—termed "The second machine age" by MIT scholars Brynjolfsson and McAfee (2014) and hailed enthusiastically as "The new digital age" by Google visionaries and executives Schmidt and Cohen (2013)—political and economic emphasis worldwide is increasingly given to *intellectual* production. If an individual constituting such intellectual capital decides to emigrate in search of greener pastures (or perhaps safety) elsewhere this migration constitutes human capital flight or "brain drain"-- an often politically sensitive issue for any nation, since lack of human capital relates to poverty and access to it relates to wealth (Carrington & Detragiache, 1999; Hausmann, Hidalgo, Bustos, *et al.,* 2011).

Implied in this on-going macro-structural reshaping of the world is that the highly able represent a very interesting and alluring aspect of the intellectual capital in any country worldwide. At the very least they may represent the perceived potential to considerable intellectual productivity for future prosperity and welfare. The highly able are seen as embodying efficiency by providing maximum output obtained from a minimum of input. For any country, institution or enterprise prioritizing profit by ever-increasing growth for a minimum of expenditure this is highly attractive:

In Indonesia, for example, gifted children are nurtured "for the progress of the future of the nation" (Suyono, 1996, p. 77). In Germany, the special promotion of gifted children is "an investment in the future" (Wilms, 1986, p. 17). According to former British Prime Minister Tony Blair, "Talent is 21st century wealth" (quoted in Brown & Hesketh, 2004, p. 1). For all

of the European Union "talents contribute to the increase of competitiveness and help the realization of the strategic goals of the European Union" (Hungarian EU Presidential Conference, 2011; p. 1). From an Australian perspective Diezmann (2002) pointed out that whereas Australia could previously be seen as "the grave of genius" at the one extreme, it is now rather viewed as an incubator for creative individuals the reason being they have the potential for "achieving great things for their country;" quoting former Australian Prime Minister John Howard. For this reason, in Diezmann's view, especially gifted mathematicians need to be promoted, since "the knowledge-economy depends heavily on the quality and quantity of mathematical expertise that is developed" (p. 2). In Korea "creativity has come to the forefront in considering Korea's future in the global economy (Seo, Lee & Kim, 2005; p. 98). The same is true of Azerbaijan, one of the republics to emerge from the former Soviet Union having made a transition from a planned economy to a market-based economy. In Mammadov's (2012) words "science and education are keys to assuring success in market competition … one of the important features of scientific schools is … [bringing] together gifted people. In Azerbaijan, a lack of comprehensive gifted education is one of the issues which need an urgent solution" (p. 30). Also, post-communist Russia, aspiring to become an economic world power, reasons in much the same way. Russia is at a stage where further economic growth can only be achieved by knowledge-based industry supported and generated by Russian talent and gifted education (Bondarik, Dymarskaya & Persson, in preparation).

For the sake of generating economic growth, education all over the World is being "McDonaldized" to use sociologist George Ritzer's (1993) term descriptive of the famous fast food franchise (Hayes & Wynyard, 2002). Things cultural are becoming increasingly framed as merely strategic in the interest of economic growth with cultural issues being of limited importance for their own sake (European Cultural Parliament, 2006; Sidhu, 2002; World Bank Institute, 2007).

Needless to say, there are critics of this on-going global transformation who argue that "the rising tide of 'efficiency' in contemporary education often masks a reduction in both the quality of education provided and attempts to reduce levels of resources invested in education, particularly in the public sector. In particular, efficiency movements can be argued to be predicated upon the idea that both individual worth and the worth of education can be reduced to economic terms. The conflict between rivaling stakeholders and values in any society, as reflected in educational systems and their purpose, is by no means a new one. It emerges with regular intervals following certain critical junctures in history. Karl Marx, Emile Durkheim, Max Weber, John Dewey, Pierre Bourdieu, Basil Bernstein and Michel Foucault have all addressed the *raison d'être* of education and the advantages or shortcomings of different positions (see Lauder, Brown, Dillabough & Halsey, 2006; for an overview). However, this often quite heated debate has never before had global ramifications. The advent of information technology and its global use has paved the way for globalization. It has, in fact, irrespective of individual countries' culture and preferred political ideology, made the entire world capitalist in nature and function (Castells, 1999). Whether we like it or not, globalization means that economy by growth has become everyone's concern.

High ability: The new kid on the block

The introduction of high ability into this context, and its perceived potential in national and global economy as human capital, is also a new piece of the global financial puzzle of economic prospect and dominance. The scale of this development is considerable and is growing at an astounding rate. At the beginning of the 21st century 53 multi-national private corporations were each wealthier than 120 of the world's nations, and in 1990 there were a mere 3000 such multi-national corporations around. However, by 2003 there were 63.000 (Chandler & Mazlish, 2005; Greider, 1997). The search for highly able individuals to act as engines of innovation for increased marketability and growth has indeed created an entirely new stage for gifted education. The highly able worldwide are in the process of becoming actors on the world center stage (Gabbard, 2000; Shavinina, 2009a). If market actors cannot find them, or if what they find does not live up to expectations, some are perfectly prepared to manufacture them

instead! Doping is common occurrence in sports, in spite of ever-changing ethics, rules and testing to accommodate the developments of new ways of improving results illicitly. The allure of exorbitant gains makes any risk of exposure and injury worth taking (e.g., Schneider & Friedmann, 2006). It is now possible—also in a normal population of non-athletes—to considerably enhance cognition, mood, physical abilities, and even to extend life. Savulescu, Meulen, and Kahane (2011) have observed that while human enhancement research has developed tremendously in a short time, moral enhancement and ethics have not followed suit. They have both been neglected by science and society. Persson and Savulescu (2011) assert:

> Even if human beings were psychologically and morally fit for life in those natural conditions in which they have lived during most of human history, humans have now so radically affected their conditions of living that they might be less psychologically and morally fit for life in this new environment which they have created for themselves (p. 486).

The global development towards a global knowledge economy will surely appear promising to many: to parents of gifted children who wish their offspring to have a bright and prosperous future (e.g., Conrad, 2011); to scholars who see that an appeal to policy makers' need for efficient production and innovation as leverage in promoting gifted education and its research (e.g., Clinkenbeard, 2007), and to politicians and global markets increasingly seeing high ability as being ultimate intellectual human capital. Policy makers and actors on the market, however, have little understanding of what constitutes high ability. Neither do they generally want to know (Persson, 2014).

> In a Human Resources context of large companies "talent has little meaning in the abstract … organizations have become impatient. They want more than someone with potential; they want people who can 'hit the ground running'. They want people who can add immediate value" (Brown & Hesketh, 2004; p. 195).

The changing values of the scholarly community.

Considering the increasing political interest in high ability as instrumental in controlling national and global economies, it is of interest to ask to what degree the scholarly community has actually followed this trend in terms of what they study. Clinkenbeard (2007), for example, encourages the community of scholars and educators in gifted education to advocate the significance of the highly able for future prosperity. As do Bleske-Rechek, Lubinski and Benbow (2004), who see intellectually precocious youth as "extraordinary human capital for society at large" (p. 223). Duke University's Jonathan Wai (2012) goes one step further and has argued, boldly, that the extremely smart ones of the world are also the extremely wealthy ones, citing the *Forbes* list on the World's 400 wealthiest individuals as evidence. It would seem that tying wealth and potential profit to the notion of high ability is very much on the agenda for researchers and educators, but to what extent?

A basic database search.

A count of articles on relevant topics published between, for example, 1984 and 2014 would indicate whether scholarly publications conform to what can largely be described as a market-adapted agenda. Three periods in time were chosen for comparison: 1984 - 1994, 1995 - 2004 and 2005 -2014. Also, three suitable databases were considered relevant for the task: 1) Educational Resources Information Center (ERIC)—a database containing research and materials relevant for education; 2) PsycArticles—a database focusing on psychological research, and finally 3) Emerald Insight, which is a database containing business literature but also contains literature in education and technology.

A search string suitably representing economy and high ability was selected: giftedness AND talent AND economy AND human capital AND asset. Similarly, a search string representing topics more traditional to the study of giftedness and talent was also selected for comparison: Giftedness AND talent AND identification AND self-actualization. Each term in the two search strings was combined with every other term so as to maximize the number of possible hits relevant to what is representative of the research field. Additional search criteria were that each hit must represent full-

text articles, be written in English, be peer-reviewed, and must have been published in a scholarly journal. There is invariably an overlap between economy and tradition and there is no feasible way of controlling for whether trends strictly represent number of researchers or number of specific topics for study. Most likely the resulting database searches represent both. The search was performed in July 2014 (see Table 1).

Table 1: Results of database search July 2014 for comparison of publication trends. The table shows number of publications per time period and change over all three time periods as expressed in a percentage.

DATABASE		1984 – 1994	1995 – 2004	2005 - 2014	1984 – 2014 Change
ERIC	*Economy* *)	0	5	29	-
	Traditional **)	55	139	152	276%
PsycArticles	*Economy*	44	89	146	332%
	Traditional	0	0	0	-
Emerald Insight	*Economy*	911	1682	5109	561%
	Traditional	285	531	1501	526%
Total	*Economy*	955	1776	5284	553%
	Traditional	285	531	1501	526%

*) *Search string economy: Giftedness AND talent AND economy AND human capital AND asset;*
**) *Search string traditional: Giftedness AND talent AND identification AND self-actualization.*

It would seem that the number of studies tying giftedness to economy has increased spectacularly over the studied period of time. It is worth noting that only few studies in psychology and no study in education addressed the link from 1984 and to 1994. It is, however, no surprise that business itself already had such a focus from the start. The worlds of business and management have always been interested in high-achievers epitomized in the study of talent management. However, they prefer the term talent rather than giftedness or high ability, and define it in several ways and often differently than does the academic world (Persson, 2014). From 1984 and to 2014 there is an overall increase in number of studies, both traditional and economic, but most surprising is the considerable increase in psychological studies relating giftedness to economy by 332%.

At the very least, these results suggest that attempts to promote the causal link between giftedness and the state of national economies have been listened to. Even if the comparison is flawed for lack of precise control, it still suggests that framing research in economic terms by appealing to potentials for production and innovation is now an established and important part of mainstream high ability research. Scholars have increasingly become socialized into the emerging global Superculture (Frazetto, 2004; Persson, 2012a; 2012b), with its own set of values and objectives, coinciding with those of business and global economy, whilst deviating from the more traditional value of academic freedom (Hil, 2012; Nocella, Best & McLaren, 2010; Rider & Hasselberg, 2013). They have fully embraced the *raison d'être* of the *Homo economicus* (Persky, 1995).

The highly able in our midst have thus become potential "cash cows." The idea of innovative and high-achieving individuals epitomizing efficiency in the global economy is now also integrated into the worldview of many scholars and educators. Whether the highly able actually are effective in an economic sense, or whether they fit socially into the infrastructure making the global world economy possible, is another question entirely and one rarely addressed in the research community. For a start, success as currently defined by education and industry is not necessarily the same as how the highly able define success themselves (Arnold, 1995; Freeman, 2010; Persson, 2009b). This requires reflection, as well as further research in, important fields of study hitherto neglected.

The makings of an impossible hero

Understanding the highly able as ultimate assets and as individuals of more or less guaranteed success is, by and large, a problematic notion since being exceptional—if defined as extreme behavior—is rarely compatible with the social dynamics of human nature. There are limits to what any social context will accept and tolerate. Behavior, which is acceptable, or even encouraged, follows identifiable patterns (Persson, 2009a; 2011). Someone who is perceived as being too different in a group, at the expense of group cohesion, risks becoming the focus of bullying and social exclusion. It is no coincidence that gifted children and adults employ a variety of coping strategies trying to fit into society. They may deny or hide their giftedness, conform to society by any means necessary in trying to be like most others, or avoid situations altogether which could reveal the manner in which they are different from the rest (Foust, Rudasill & Callahan, 2006). In addition, deviating from the social norm, whichever it is, is most likely more of a problem in collectively oriented cultures—more characterized by the demand for conformism—and less of a problem in more individualistically oriented cultures (Crystal, 2000; Toivonen, Norasakkunkit, & Uchida, 2011). All cultures, however, have limits for what is considered acceptable and to what degree deviating from established norms can be tolerated. Exceeding these boundaries will invariably trigger a negative response and lead to suspicion, avoidance, marginalization, social exclusion, stigmatization, and over time, in extreme cases, even to eradication (Crocker & Quinn, 2003; Judge, Colbert & Illies, 2004; Shultziner, Stevens, Stevens, *et al.,* 2010; Simonton, 1994). Even so, we like to think of the gifted and talented, with their extreme skills, as a kind of superhero. Why is that?

Enter Superman and Wonder Woman

The human species is fascinated by the idea of heroes, great leaders, astounding achievers, and doers in every conceivable context from sports and finance to cooking competitions and in the arts. This inclination is likely to be a human universal. One reason is our psychological need for believing in a just world, even if it is far from it by evolutionary design. We seek and admire outstanding individuals to change the world around us in our favor (Lerner, 1980). Another reason is, when need be, we like basking in the glory of their success and vicariously take on their achievements as if they were our own. Similarly, we tend to distance ourselves from their failures because these could reflect badly on our own image in a certain social setting and may undermine our self-esteem (Cialdini, Borden, Thorne *et al*., 1976; Snyder, Lassegard, & Ford, 1986). However, we pick our favored high-achieving heroes very selectively, and there is a certain pattern to who is attributed a hero status and why. Some will never become heroes no matter how clever, how stupendous, or how correct they may be (see Persson, 2009a).

At least when younger, we also like to occasionally escape reality for a while reading about or watching fictional superheroes using their "superpowers" for good against evil. The good always vanquishes evil. The idea of superheroes and what they represent offers psychotherapists ways of appealing to and helping children in therapy (Rubin, 2006). Furthermore, we borrow from culturally generated mythology when defining great leaders. Each culture projects its own cultural virtues onto what an ideal leader should be: North Americans prefer the noble, strong, brave, self-reliant, and advantage-exploiting superhero showing off his or her superpowers in public, whereas a leader in the Middle East, and particularly in Iran, rather embodies the teaching of wisdom and a leader characterized by loyalty, fairness, justice, kindness, chivalry, and moderation. For Scandinavians, and particularly the Swedes, a supernormal leader is paradoxically an equal amongst equals. She or he is collaborative, avoids conflicts, empowers, is pragmatic and seeks consensus. The Scandinavian leader is more like a superhero in hiding and being publicly in denial of his or her superpowers (Kessler & Wong-Mingji, 2009).

This superhero idealism, projection, and escapism, fulfills a need to imagine a better and more just and acceptable world. If we cannot have it or see it manifest around us, at least we can imagine it for a while and resolve some of our worries and fears by proxy (Alison & Goethals, 2011; Bettelheim, 1991; Fleet & Hammer, 2013; Rosenberg & Canzoneri, 2008).

Irrespective of culture, we also satisfy our need for collective identity and group cohesion with the wins of formidable athletes in international contests. However, when we hail, admire, and greatly reward the winner and his or her physical prowess, we inadvertently also demonstrate a certain contempt for weakness. Tännsjö (1998) warns of fascist tendencies. Similarly, using business rhetoric, we have a propensity for construing the ones we consider successful or unsuccessful in society as "winners" or "losers." A Google search on each term provided 302 million hits searching for winners and 47 million when searching for losers. Also, the term "success" yields 1 billion hits whereas "failure" gives 428 million (search done on 26 August, 2014). Given that this comparison is a reasonable indication of where the World's attention generally lies, we appear to be about six times more interested in the winners than we are in the losers and about twice as likely to focus on success rather than on failure, which Swedish song group ABBA made perfectly clear in one of their hits from 1980. They demonstrated how deeply rooted the notion of winning or losing is in our collective consciousness, by singing (Andersson & Ulveus, 1980):

> The winner takes it all. The loser's standing small.
> Beside the victory that's her destiny.

This tendency to glorify success is likely to be prompted by a universal propensity for engaging in competition, seeking perceived advantages and avoiding that which we feel offers little prospect. Perceiving a win or loss is tied to changing testosterone levels as well as to clinical depression (Baumeister, Heatherton & Tice, 1993; McBride-Dabbs & Godwin-Dabbs, 2000; Schwartz, 1974), whereas being perceived as a loser, either by oneself or by others, may in the end, in extreme cases, lead to self-destruction (Bloom, 1995).

Riley and Karnes (2000) pointed out that education, even since Ancient Rome, is inextricably linked to competition in several ways. Competition also serves to develop talent "for the workforce, complementing educational initiatives in securing and developing a nation's economic health" (p. 166). However, how far can winning and losing or being successful or unsuccessful be taken? In a recent conference paper by Alice W. Huang (2014) students with learning difficulties were alarmingly construed as a *liability* to teachers, family and school management. To remedy this problem the author proposed that schools should impose monetary fines on what she termed "irresponsible learning-disabled students". This intervention certainly signals contempt for students' difficulties, little concern for their cause, and a limited interest in offering individualized support.

The seductive cult of success

A *cult of success* has developed in the wake of a knowledge based economy's insistence on cost-effective outcomes and profit-driven growth. The cult of success places more emphasis on making money than on human social and emotional welfare (Banerjee, 2008; Devinney, 2009; Senechal, 2011/2012). Above all, the global economy seeks high-quality achievement in STEM-subjects: that is, science, technology, engineering and mathematics because these make technology and innovation possible (Melguizo & Wolniak, 2011). As increasing emphasis is placed on economy in education so too, it seems, increases our willingness to construe the highly able as almost superhuman in what we expect them to achieve in the future. Most likely the changing focus and purpose of education worldwide also drives our perception of who the highly able are and which their societal function should be.

Against this background it is only natural that, apart from recognizing the tremendous feats and skills of the highly able by observation and measure, we are additionally prone to assign them with a kind of superhero status. Several factors contribute to this tendency: a deeply rooted desire for a just world, ethnocentric motives for group cohesion and cultural dominance, and our harboring selfish motives of which we are unaware. Consequently, we construe their considerable abilities to impact anything from world peace, global welfare to health and wealth for all. The highly able are generally construed as winners also (e.g., Rimm, Rimm-Kaufman & Rimm, 1999), or as saviors on which

human existence depends. British historian A. J. Toynbee (1967) in an almost euphoric manner emphasizes:

To give a fair chance to potential creativity is a matter of life and death for any society. This is all-important, because the outstanding creative ability of a fairly small percentage of the population is mankind's ultimate capital asset, the only one with which Man has been endowed (p.24).

It is worth considering why there is so little written on perceived failure and on so-called losers. In one study, 287 highly intellectual individuals and their career patterns were focused; a mere 25% of them considered themselves happy and successful, but the rest were quite dissatisfied and frustrated with their work and how they were treated by their employers (Persson, 2009b). This is not to say that they necessarily viewed themselves as losers, but in the eyes of the surrounding community, and in the understanding of neoliberally oriented economy, they were not winners (cf., Frank & Cook, 1996). Compare this with management scholars Brown and Hesketh's (2004) taxonomic division of talented job applicants into stars, razors, safe bets, and "iffys." The latter are the creatively and intellectually gifted ones often considered too naïve and idealistic by prospective employers. They are seen as lacking in business awareness. Furnham (2008) observed that these often do very badly at interviews and are therefore overlooked when hiring.

Hence, the highly able ones, whom we have a tendency to attribute with a superhero status, are not infrequently also individuals considered by the market to be the least suitable for employment in a business-oriented knowledge-based organization even though the opposite could actually be true, given that they were accepted and their uniqueness in need and deed was recognized. To argue that success as defined by economic terms and on the basis of an accountable, controlled and effective production ethos is guaranteed because of skill and knowledge, is quite unlikely, or at least uncommon. First, this happens because of the global economy's demand for strict control of virtually everything constituting the economic growth process. In Michael Power's (1997) terminology, the highly able must contend with "the audit society and its rituals of verification", for which most of them are eminently unsuitable given that they tend to be free spirits, morally astute, idealist and visionary, empathic, independent, individual, self-sufficient, independent, autonomous, dominant and individual, self-directed, intellectually curious, reflective, creative, imaginative, and non-conformist, and rebellious, which is how the literature characterizes these individuals (Janos & Robinson, 1985; Shaughnessy & Manz, 1991; Shekerjian, 1990; Winner, 1996). Secondly, the highly able may not fulfill their expected heroic role in the global economy because of the boundaries imposed by the social dynamics of human nature (cf., Arnold, 1995; Freeman, 2010; Furnham, 2008; Nauta & Ronner, 2008; Persson, 2010). We are less free to act and impact the world around us than what we might think. This is especially true of the highly able!

Free will and human nature

Many, if not most, of our projections of what we imagine the highly able to do for today's world and even more so for tomorrow's, is generally based on the assumption that all things are possible. However, as Eibl-Eiblsfeldt (1989) has so cogently argued, we need to be aware "of the more primitive action and reaction patterns that determine our behavior, and to not pretend as if they did not exist. It is especially in the area of social behavior that we are less free to act than we generally assume" (p. 3). This is a field of knowledge and discovery much neglected in the social sciences. Harvard scholar Stephen Pinker (2002) correctly pointed out that not recognizing and counting on human nature and its impact has a seriously corrupting influence on science. If we do not we risk arriving at the wrong conclusions, since we would then theorize and apply research in practice on the bases of flawed assumptions!

The beliefs, wishes, and convictions that we regard as being real and true might, in fact, in a more objective sense, actually be illusions. "Illusions are generally useful," Austrian neurologist and philosopher Franz M. Wuketits (2008) argued, "they may as a result of evolution, through natural

selection, actually be instrumental in serving our survival" (p. 6, author's translation). In other words, we wish to understand ourselves and our environment in as positive a light as possible because it benefits our development over long periods of time. This programmed propensity for illusion is quite possibly the reason for our universal need for our undeterred belief in a just world (Lerner, 1980). A positive self-serving bias is a well-researched field in psychology. It is an established and universal fact that cognitive and perceptual processes *distort* what we see and yield an understanding aimed at maintaining and enhancing self-esteem (Mezulis, Abramson, Hyde & Hankin, 2004).

This propensity for positive illusion is an evolutionary adaption making us feel special and transcendent, according to Humphrey (2011), who also suggested that illusion should be understood as a mode of consciousness. We think we initiate great plans for the future and that the outcome of them will make all the difference. We often project the hoped-for success of such plans onto the gifted and talented. However, are the decisions taken to initiate such plans of our own decision?

The issue of free will (or volition) is an age-old philosophical and still largely unresolved conundrum, but the issue belongs in this context also. The greatness that we often project onto favored heroes assumes self-determination; that he or she takes action on our behalf because of an altruistic choice. But how self-determined is this choice?

Science traditionally holds that the process of applying one's will is a conscious and also self-determined process leading to action (e.g., Dörnyei, 2000; Heckhausen & Kuhl, 1987). Recent neurological evidence of how volition appears to function, however, has baffled scientists and rattled philosophers. It would appear that the decisions we believe we take actually *precede* our becoming aware of them. Actions can apparently be initiated *without* us being aware of their goals (Bengson, Kelley, Zhang *et al*., 2014; Custers & Aarts, 2010; Libet, 1999; Wegner, 2002). These findings certainly undermine the idea of self-determination as a basic human need (Deci & Ryan, 1985). How could it be if our actions have been decided ahead of becoming aware of them? The findings also cast a shadow over the idea of self-actualization and popular adages such as "to be the best that I can be" or "to reach one's full potential;" all of which are part of the discourse in the sub-cultural context of giftedness studies. Perhaps expressions such as these should be construed more correctly as benevolent illusions rather than factual possibilities (cf. Baumeister, 2008; Baumeister, Masicampo & DeWall, 2009)? Another way of looking at this is evolutionary Meme Theory (Blackmore, 1999): We could all be seen as "meme machines". While a gene is a self-replicating biological unit the meme is a self-replicating idea, behavior, or style. In meme theory we are all considered agents played out by vast numbers of memes. Hence, also in this line of reasoning free will is not a necessary component to life and living. If it exists free will is itself a meme, but generally we are as Homo Sapiens relatively passive automatons

While we may never learn to fully understand how volition functions, but the basis of converging research evidence from several disciplines, it is correct to argue that free will as expressed through action is limited for a number of reasons. To what degree is open for debate—and it is certainly being hotly debated (e.g., Harris, 2012; Mele, 2014)—but the boundaries imposed on Homo Sapiens, whether we accept them or not, remain undisputable. This has implications for not only ourselves as scholars and educators but most certainly also for how we construe the societal function of highly gifted individuals.

The limits of great expectations

Reality for many intellectually gifted individuals is often quite different than how we envision it. Reviewing the literature of the socio-emotional difficulties of the highly able, Fielder (1999) insightfully concluded that "along with the promise of potential come the problems of potential—problems that are often a direct effect of differing from the norm in ways that others are not necessarily prepared to deal with" (p. 434). This is a far cry from the German position of understanding gifted children as investment in the future, the British understanding of talent as the

wealth of the 21st century, or other any other nation's hope for the highly able individual. Highly able individuals do not necessarily embody efficiency by providing maximum output obtained from a minimum of input. Nor are they always prepared to submit to quality audits as determined by commissioners who are unaware that the highly able tend to be more or less perfectionistic themselves (cf. Pyryt, 2007). This occurs in a context ruled by the principle that "time is money;" a typically Western notion. With a global economy and the establishment of a neoliberal superculture, the relationship between time and profit is likely to spread and emphasize efficient human capital everywhere.

Above all, there are a number of challenges, social in nature and prompted by human nature, which any intellectually gifted individual will have to face if aiming for a career. How these challenges are dealt with and resolved is likely to decide their social status in any community worldwide, and therefore also determine their degree of societally acknowledged "success" in the context of a normal population. There are a few simple but very fundamental principles, borrowed and adapted from the wielding of political power (Alford & Hibbing, 2004):

1. In a normal population, you must be perceived as being more like most others rather than being perceived as dissimilar in comparison to most others.
2. To be merely tolerated in a social setting is not enough. You must also be accepted, recognized, and given trust and relative permission to act by the majority of this social context.
3. To be accepted by the majority of any social context, *you* must also accept and be patient with *their* standards, understanding, and levels of ability.

There are of course additional criteria as well, shifting with each culture and context, but these are in all likelihood the most basic criteria, prompted by human nature, and operating largely unaware and irrespective of culture or context. To my knowledge, they are never explicitly considered in recruiting people to various jobs, which may well explain why psychometric approaches to finding "the right people," no matter how sophisticated the testing, have relatively poor predictability (cf., Furnham, 2008).

The key to being considered successful in society, irrespective of whether an individual is gifted or not, is always whether an individual is relatable and can be perceived, more or less, like I imagine myself to be—or indeed wish to be. He or she must qualify as "one of us." This is, then, ultimately the dilemma of the intellectually highly able, who we often foresee as taking high offices, being leaders of the world, producing great innovations, bringing peace and prosperity, and generating unprecedented growth of the global economy because of their outstanding abilities and insights. Their skills are not in doubt, but will they be permitted by society "use their power for good?" (Freeman, 2005). More often than not the answer is, sadly, no.

The gifted often know instinctively that perceived similarity to the rest of society is the key to social acceptance. For this reason many do their best to hide their skills and talents in order to be "normal" and to fit in by trying to being like most others (Foust, Rudasill & Callahan, 2006). But can they? Clearly most cannot because it would mean denying oneself an identity and always remain involuntarily under cover. Hollingworth (1942) famously addressed this problem already in the 1940s, concluding that "a lesson which many gifted persons never learn as long as they live is that human beings in general are inherently very different from themselves in thought, in action, in general intention, and in interests.

Many a reformer has died at the hands of a mob, which he was trying to improve in the belief that other human beings can and should enjoy what he enjoys. This is one of the most painful and difficult lessons that each gifted child must learn, if personal development is to proceed successfully" (p. 259).

Conclusion: Changing the course of history?

Many scholars and educators may have taken Hollingworth's (1942) research too lightly. If so, it is easy to understand why. Her findings are contrary to illusions of a self-determined and just world lead by highly able superheroes. In addition, they are incompatible with neoliberally motivated fervor for construing the gifted and talented as being anything but successful. Shavinina (2009b, p. vii) enthusiastically argued, and many other scholars and educators probably agree, that

> one way to understand the history of human civilization is via inventions and discoveries of the gifted … People increasingly realize that gifted and talented individuals are even more important [now] than in the past. Thus, industrial competition is increasingly harsh … To survive, companies need creative and talented employees whose novel ideas are to a certain extent a necessity … for existence and future success. Consequently, modern society desperately requires highly able citizens … In short, intellectually creative citizens are guarantees of political stability, economic growth, scientific and cultural enrichment, psychological health, and the general prosperity of any society in the 21st century.

This is an optimistic and encouraging statement, but it is nevertheless a very problematic one. It is much too simplistic. Tannenbaum (1993), for example, argued in his time that a genius does not make history, nor does history make the genius. Individuals and their environment *both* have influence on how things develop and turn out. Simonton (1994) agrees, citing the fact that quite a few political leaders in the United States, of the very highest recognized caliber, never made it into the White House, even though they tried in earnest. "They all shared the misfortune," Simonton observed, "of having been out of step with their times" (p. 409). This is the point of this entire article! While there is an undisputable genetic potential with some individuals, nothing will come of it unless its social context encourages it, supports it, trains it, and to use Freeman's (2005) words: gives this potential *permission* to act.

The study of high ability would have gained much needed insight had research focused in equal parts on what the gifted can do and how *and* on the social world and its determinants for acceptance and tolerance. However, in this choice too we have fallen for a trap set by evolution; we tend to be fascinated by that which deviates from the normal. "In seeking to understand intelligence," Sternberg insightfully stated, "we should inhibit our desire to look in obscure nooks and crannies, and dampen our fascination with the unusual and the bizarre. Instead, we should first look in the most obvious of places—ordinary people living their ordinary lives" (p. 6).

While for a gifted individual rising to recognition and fame has always been, and always will remain, difficult at best—mainly because of human nature and the resistance it offers to deviation from the norm—but with the advent of human capital and its foundation of neoliberal ideology, as the knowledge economy gained momentum from about 1980 and onwards following in the footsteps of the IT-revolution), major individual feats of talent, insight and artistry have become increasingly difficult to pursue. Paul Verhaeghe (2014), a Belgian professor of clinical psychology, explains that anyone who fails to "succeed" in our day and time also tends to believe that there is something wrong with them. The cult of success in a knowledge economy generates pressure to achieve and be happy. This is resulting in disorientation, a distorted view of the self, and for an increasing number of people, despair. The globalized economy, according to Verhaeghe, has made people lonelier than ever before. Other research shows that a neoliberal economy is badly equipped to understand human needs. It is even worse at dealing with them when the policies it has itself generated make people ill (e.g., Carney, 2008; Navarro, 2009; Ragu-Nathan, Tarafdar, Ragu-Nathan *et al.,* 2008; Thegtsoonian, 2009). A knowledge economy, driven by economic growth through innovation, mediated by information technology, appears to be generating a world into which, generally speaking, Homo Sapiens does no longer fit. To be able to fit into in this system, we must all be completely controllable, predictable, quantifiable, and efficient. In other words, it presumes we have all been "MacDonaldized." In other words, we have all transformed into replaceable and standardized

machines (Ritzer, 1993). The global knowledge economy is therefore hardly conducive to gifted behavior!

Consider, for example, the 2013 Nobel Prize Laureate in Physics, Peter Higgs, a professor emeritus at Edinburgh University: in an interview in *The Guardian* candidly told the reporter, that he would not have made his discoveries had he been forced to work in a contemporary university because of the production-oriented and collective nature of current research efforts, with a main focus on churning out papers in acknowledged journals. "It's difficult to imagine," Higgs said, "how I would ever have enough peace and quiet in the present sort of climate to do what I did in 1964" (Aitkenhead, 2013).

In this light, how feasible is it for scholars and educators devoted to high ability to advocate the significance of high ability for future prosperity; to tout the young gifted as extraordinary human capital; to view personal wealth as a measure of success and giftedness, or view them as a reservoir of community leaders in research, development and recruitment for the State, the community, and all of humanity towards the completion of a global knowledge economy? No one questions the abilities, insights, and astounding creativity of the gifted and talented including their special needs in education. These individuals are indeed potential assets for all of humanity. We fail, however, for a number of reasons, to understand the dynamics by which extreme behavior functions universally in a social context. In addition, we have not grasped the scope and dynamics of a globalized knowledge economy and how this impacts school systems, cultural institutions, welfare, higher education, research—and democratic principles. A number of scholars understand neoliberalism, and particularly the neoliberal economy, as the bane of democracy (Harvey, 2005; Giroux, 2004; MacEwan, 2005) and constitutes a systematic program for the destruction of all things collective (Bourdieu, 1998).

It is therefore unlikely that the gifted and talented under neoliberal rule will be taking high offices, be leaders of the world, produce great innovations, bring peace and prosperity, and generate unprecedented growth of the global economy because of their outstanding abilities and insights, little depending on how we define all terms relating to high ability (Persson, 2013; 2014). Discovery, like theorizing the existence of, for example, the Higgs Particle, has become virtually impossible. The reason being that to understand, study, conclude, and to test and verify, takes much time. The knowledge economy, however, dictates that time is money and work must conform to efficiency. In general, environments facilitating great discovery, creativity, and insight, are being dismantled systematically all over the world paving way for industrial excellence through efficiency – a contradiction both in concept and in practice considering the fact that the creative process is largely dependent on an accepting environment and the absence of restrictive control and mistrust (e.g., Amabile, 1996; Sternberg & Lubart, 1995).

If we are to believe and take seriously any research on the gifted and talented generated over the years, the gifted tend to be too moral, too fair, too empathic, too passionate, too independent, too logical and too different from a normal population to accept or cope with the compromising of everything they hold dear just to competitively reach the top. Even if they do manage this, they would be too difficult to relate to for a majority of society and would therefore fail to be acceptable and liked. Only one possible scenario would make a career towards a leadership for many, or even a global leadership, possible: That is, if the highly able candidate has psychopathic tendencies. Psychopathically disordered but highly able individuals are increasingly seen as role models in the corporate business world (Babiak & Hare, 2006; Boddy, Laddyshewsky & Galvin, 2010; Wexler, 2009). The highly able psychopath is clearly morally and ethically dubious and has proven to be a disaster to social cohesion and joint efforts in any organization. However, they have at the same time acquired a socio-biological function, bringing them admiration in much, but perhaps not in all, of the neoliberally constructed knowledge economy (see Ambrose, 2011; Dutton, 2012).

In conclusion, we are sadly left with the fact that the self-determined "happily ever after," conveyed so many times on the Hollywood silver screen by strong, beautiful, adored, loved, and

successful heroes with few problems, does not usually exist. Interestingly, we are genetically programmed to believe so. Everyday life tends to be very different than in scripted screenplays with a happy ending. Life in a knowledge based economy, as discussed in this article, is not only short of self-actualization and self-determination, but it is in fact also severely dehumanizing. Is it then the purpose of gifted education to be economically effective, to follow, or perhaps even lead the development towards a knowledge economy by producing marketable individuals to lead the entire world into an imagined golden age where technology and products for profit constitute almost every aspect of everyday life? I hope not. The prospects of this are too ghastly to even imagine!

We live in a complex and rapidly changing world, but never before has the world population been so exposed to corporate greed and collective control (Huffington, 2009; Healy, 2014), often with negative consequence to the world community (e.g., Engdahl, 2007). There are no simple solutions to be found at any level of society in any country. The gifted are certainly our best hope for a brighter future. However, they are also all too unlikely to be allowed to lead the way for all the reasons discussed in this article. It is up to scholars and educators interested in gifted education and high ability, becoming and staying fully aware of our proclivity for positive illusion, to deal with these problems, and to support the gifted and talented, wisely and productively in this brave, new, world of the knowledge economy.

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About the Author

Roland S Persson, *Ph.D*. and Fellow of The College Teachers, is professor of educational psychology at Jönköping University, School of Education & Communication in Jönköping, Sweden; former editor-in-chief of High Ability Studies. He serves on the editorial boards of several scholarly journals focusing on giftedness, talent and creativity. He has advised the Hungarian and Swedish governments on the nature and necessity of some form of gifted education being part of national school system, and is currently key-figure in implementing gifted education at all levels in the Swedish school system. Research has always been eclectic in an effort to bring together the knowledge and wisdom of all academic disciplines with an interest in individuals of high ability and their function, given or taken, in society. At first interest was on musical talent and musicianship, followed by the nature of gender identity and social cognition, cross-cultural dynamics, to currently land in high-functioning intelligence in the light of evolutionary function as well as is issues related to Human Resources. In short, through a multitude of perspectives, the individual gifted and his or her world has always held a fascination for Dr. Persson.

Roland S. Persson is affiliated with the American Psychological Association, and the British Psychological Society. He is a member of the Behavior and Evolution Society, the World Council for Gifted and Talented Children; an honorary member of the European Council for High Ability, and a fellow of the British College of Teachers. Dr. Persson serves on the Advisory board for the International Centre for Innovation in Education (ICIE).

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LEGO Engineering: Bringing Engineering to all Students

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Introduction

Where science is understanding the world, engineering is changing that world. Imagine a world without the work of engineers: from air conditioning to indoor plumbing, from the clothes you wear to the internet, from transportation to energy generation. One quickly realizes that almost every aspect of our daily lives have been strongly influenced by the results of engineering, yet most people will graduate from college without ever taking an engineering class. As engineering and STEM (Science, Technology, Mathematics, and Engineering) rise in popularity, we are starting to see engineering standards emerging (for instance the design strand in the United Kingdom, robotics in Australia and Asia, and engineering standards in a handful of American states as well as in the Next Generation Science Standards). As these standards emerge, however, we are faced with a problem. The ability to engineer is difficult to test with a standardized test and we can either change our definition of engineering (having students memorize the steps of the design process and regurgitate them on an exam) or change our definition of testing (have students develop portfolios of their engineering inventions).

Over the last 50 years, researchers have developed a better sense of how people learn. Numerous studies have looked at everything from the role that identity and self-efficacy play in academic success, to include the role that pets play in learning. Researchers have tracked individual students in qualitative case-studies, such as… and looked at the distribution of learning outcomes using thousands of students. In all cases, the research clearly shows that, just like we all have our own tastes in food, we all have our own ways of learning. Like taste, there are commonalities in how we learn (Brown & Cocking, 2000), but we would never expect a group of 20 people to all like the same food; however, we do expect classrooms of 20 students to all learn effectively with a single curriculum and a single shared classroom experience.

Some schools, such as the Expeditionary Learning Schools (http://elschools.org), take advantage of all the different learning styles by placing students with different skill sets into teams to solve authentic problems and to do authentic research. Rather than all students striving for the same "right answer," now teams of students are collaborating to find a "viable answer" and the evidence needed to support their answers. Rather than scaffolding for success, these classrooms promote failure in an effort to maximize the students' creativity and innovation. If students are going to be creative (different), they need to take risks. If they take risks, they need to accept and to welcome failure as an integral part of an eventual success. One of the unique aspects of this learning environment is that eventual success is not necessary, as the learning that happens along the way still makes the endeavour worthwhile. Rather than ensuring that every student comes away with the same knowledge or set of facts, these projects push for distributed expertise, taking advantage of the individual student's strengths, interests, and skills.

This is especially important in enhancing STEM learning where we need to find ways to make STEM disciplines personally relevant, such as through projects that encourage students to investigate and to solve problems in their communities (Rosebery et al, 1992), and to draw upon the resources that already exist within the places they live and the people they live with (Moll & Greenberg, 1992). Other practices that can broaden STEM participation include using materials and examples that are inclusive of underrepresented groups, that include …, informal peer-led learning, and tutorials that

focus less on how to use a specific tool and more on how to use tools to achieve motivating ends (Peckham, 2007). Developing role models who invent and create but come from diverse backgrounds can be a powerful way to broaden the appeal of STEM (Gilbert, 2006). Creating opportunities for peer role models and for community engagement in learning may be a way to increase the diversity of role models available for students in STEM, overcoming the limitations imposed by the formal role modelling (professor to student) at most universities.

Figure 1: Three Teaching Modes.

Interestingly, one of the great remaining bastions of what Sir Ken Robinson (Robinson, 2006) calls industrial age education (student comes in, gets imprinted with knowledge, and gets spat out) is the home of much of this research: the university. Lectures to hundreds of students are commonplace in almost every university. Laboratory exercises that require the students to follow a recipe rather than thinking on their own are common in the first few years of college. The rising trend toward including more online courses increases class size from hundreds to thousands. What if we could change that? What if the first few years could be a place where students have the ability to create, to fail, to learn from each other, and to be exposed to different cultures and backgrounds in and out of the classroom?

What is the goal of teaching?

When we teach, our goal is to take a story or understanding we have in our head and move it into the heads of the students. We can do this (Figure 1) by *telling* the students our story (a lecture), by *showing* the students our story (e.g. labs, demonstrations), and by *enabling* students to grapple with the idea and develop their own story that will eventually align with ours through argumentation (open-ended research and problem solving). I believe that excellent teachers are those who can individually balance these three learning methods for their students, knowing when to let the students flounder and fail and when to give them support and structure in order to build that story in their students' heads. At college, we tend to do a lot of "tell and show" before "enable." At the graduate level, the "enable piece" drives the bulk of the student learning. If one examines the literature on science education, one sees an increasing emphasis on teachers as listeners and enablers, eliciting student thinking (Hammer, 2006). I believe that the humanities are ahead of the sciences in this area, with students allowed to have opinions and encouraged to find evidence to support their opinions in writing, debate, or in-class discussions. Often in the sciences, teachers do not allow students to have opinions, but rather promote students memorizing the opinions of other scientists, with the goal of students "knowing the right answer" outweighing the goal of "thinking like a scientist."

What are the characteristics of an engineering class?

There are a number of attributes that demonstrate that students are actively "thinking like an engineer." I have identified a few that seem to be consistent across classes. They include:

- *Problem Framing* - Students interact with clients to decide on needs and constraints, to identify their own problems, and to use science and mathematics to help predict a successful path before building.

- *Failure, Iteration, and Resilience* - Students realize the limitations of their first solution and change their solution accordingly.
- *Solution Diversity* - Instead of the familiar "right answer," a good engineering problem is one where everyone's answer is different, as is their process they used to arrive at that solution.
- *Distributed Expertise* - Rather than every student learning the same thing, students within a team choose different aspects of the problem to gain expertise (e.g. programming, user interface, fabrication).

In all these cases, the students are working in teams, resulting in extensive peer-instruction and peer-critiques. Both of these peer techniques have been successfully used even with large classes (Lasry, 2008), with the students thinking more deeply about the knowledge when they have to argue with their peers. From a design point-of-view, the best engineering teams have a diverse skill set.

Research Efforts at the Tufts Center for Engineering Education and Outreach

We have had a number of research directions at the Center, from looking at teacher self-efficacy in engineering pedagogy to the role of race and culture in learning science. There is a full listing of all the work at www.ceeo.tufts.edu. Rogers (2012) and Danahy et al. (Danahy, 2014) give an overview of all of the LEGO Mindstorms work we have done and some of the findings. The two research projects I want to highlight here are: (1) integrating science and engineering; and (2) integrating literacy and engineering.

Figure 2: Sample musical drums.

We recently completed a five year, National Science Federation (NSF)-funded research effort aimed at looking at science content knowledge and how learning changed when the science content was embedded in an engineering activity. In particular, we looked at 12 teachers's science classes, having them teach one year with their traditional methodology and the other with a LEGO-based design problem. We found that the students in the engineering-based class scored statistically higher on a science content knowledge class, but both classes scored equally on attitudinal surveys. This result was somewhat unexpected because many thought that the engineering component would provide motivation and excitement (attitudinal shifts) but not necessarily improvements in content knowledge. The design problems were broken into four different units: the animal unit, the properties of materials unit, the simple machines unit, and the sound unit. All of these units came as part of a complete curriculum and can be downloaded at ***legoengineering.com*** (Wendell and Rogers, 2013). Figure 2 shows some of the student inventions using balloons as drum skins and LEGO beams as support material.

The second project I wanted to highlight is one that is still ongoing - Novel Engineering <***www.novelengineering.org***>. The idea behind Novel Engineering is that students read novels and identify engineering problems in the books to solve. Books provide complex, rich problems with characters that have needs, attitudes, and abilities. Students think about the characters as clients. Figure 3 is a snippet taken from the video data of two boys designing a periscope as part of a solution

to a problem in "From the Mixed Up Files of Mrs. Basil E. Frankweiler" by E. L. Konigsburg. It is interesting to watch how the book causes various constraints on their invention (Would they have wood? Where will they get the money to pay for it?).

Figure 3: Engineering from a book.

The research on this project has focused on the beginnings of engineering in children's thinking (Portsmore 2013; Watkins et al, 2014; Milto et al, in press), as well as on student resources for learning in science (Hammer, 2000). While there have been some difficulties with teachers pushing for a given solution (rather than the student's solution) and with students using "magic" as an engineering tool ("… this button will make the robot cook for you…"), for the most part we have found Novel Engineering very effective at promoting open-ended engineering in the classroom. Teachers are confident in their ability to teach reading and see this as a constructive way to have the students critically think about what they have read. Students get excited to create and to invent and we incorporate engineering into the classroom curriculum.

Conclusion

In conclusion, every country, it seems, is looking at STEM education (or STEAM education if you add the arts) as a way to improve their future economy. Engineering is naturally a project-based subject that includes a diverse set of skills (from art to analysis to accounting), promotes creativity, and student-led learning. If we can embrace it in that way, promoting failure and iteration, promoting solution diversity, and promoting distributed expertise across the classroom, I believe we will see large strides in improving engineering literacy.

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About the Author

Chris Rogers got all three of his degrees at Stanford University, where he worked with John Eaton on his thesis looking at particle motion in a boundary layer flow. From Stanford, he went to Tufts as a faculty member, where he has been for the last million years, with a few exceptions. His first sabbatical was spent at Harvard and a local kindergarten looking at methods of teaching engineering. He spent half a year in New Zealand on a Fulbright Scholarship looking at 3D reconstruction of flame fronts to estimate heat fluxes. In 2002-3 he was at Princeton as the Kenan Professor of Distinguished Teaching where he played with underwater robots, wind tunnels, and LEGO bricks. In 2006-7, he spent the year at ETH in Zurich playing with very small robots and measuring the lift force on a fruit fly. He received the 2003 NSF Director's Distinguished Teaching Scholar Award for excellence in both teaching and research. Chris is involved in several different research areas: particle-laden flows (a continuation of his thesis), tele-robotics and controls, slurry flows in chemical-mechanical planarization, the engineering of musical instruments, measuring flame shapes of couch fires, measuring fruit-fly locomotion, and in elementary school engineering education. His work has been funded by numerous government organizations and corporations, including the NSF, NASA, Intel, Boeing, Cabot, Steinway, Selmer, National Instruments, Raytheon, Fulbright, and the LEGO Corporation. His work in particle-laden flows led to the opportunity to fly aboard the NASA 0g experimental aircraft. He has flown over 700 parabolas without getting sick. Chris also has a strong commitment to teaching, and at Tufts has started a number of new directions, including learning robotics with LEGO bricks and learning manufacturing by building musical instruments. He was awarded the Carnegie Professor of the Year in Massachusetts in 1998 and is currently the director of the Center for Engineering Education Outreach (www.ceeo.tufts.edu). His teaching work extends to the elementary school, where he talks with over 1000 teachers around the world every year on ways of bringing engineering into the younger grades. He has worked with LEGO to develop ROBOLAB, a robotic approach to learning science and math. ROBOLAB has already gone into over 50,000 schools worldwide and has been translated into 15 languages. He has been invited to speak on engineering education in: Singapore; Hong Kong; Australia; New Zealand; Denmark; Sweden; Norway; Luxembourg; Switzerland; the UK; France; and in the US. He works in various classrooms once a week, although he has been banned from recess for making too much noise.

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Cultural Differences in Creativity: The Role of Immigration

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Abstract

This study analyses the relationship between creativity and personality in two cultural contexts, London, England and the Greater Region of Luxembourg. A multivariate approach to creativity implies that personal and contextual characteristics influence creative performance. Is the relationship between creativity and personality the same in different cultural contexts? Within education the cultural factor might have more impact than in other environments because of the assimilation of migrant students. This study is carried out in London, England and the Greater Region of Luxembourg. The sample consists of 243 participants (199 women, 44 men, M_{Age} = 20.35, *SD* = 1.56, age range: 18-32 years). Whereas the correlation between creativity and openness is positive for non-immigrants (European), it is negative for immigrants (non-European). This highly surprising exploratory result can be related to migration. A possible mediator between creativity and openness might be individual differences linked to migration, i.e. uncertainty avoidance. Implications of results will be discussed.

***Keywords*:** Creativity; immigration; cultural differences; uncertainty avoidance.

Introduction

In today's society immigration is at an all-time high of 232 million worldwide and still growing. Representing almost 10% of the world population (United Nations-Population Division, 2014), the relationship between culture and creativity becomes increasingly important to understand. With immigration, societies consist of people with different cultural backgrounds. Societies consisting of people from different cultural backgrounds can be defined as multicultural.

Research suggests that multiculturalism increases creativity: "There is evidence that multicultural experience can enhance cognitive processes underlying creative performance beyond the effect of bilingualism" (Kharkurin, 2012, p. 94). One explanation of a cognitive process is that with bi- or multiculturalism, "novel conceptual combination" results in creative conceptual expansion (Hampton, 1997; Simonton, 2000; Wan & Chiu, 2002). Some argue however that culture impedes creativity (Ward, Patterson, Sifonis, Dodds, & Saunders, 2002). Relatively little research has been carried out in this domain. One reason might be the methodological difficulties of measuring the concept of a multicultural environment and the effects thereof. Today there is an ongoing debate on the concept of multiculturalism itself, especially within political theory. The meaning of the concept varies depending on the meaning of culture as well. In this study culture is defined as: "The collective programming of the mind that distinguishes the members of one group or category from people from others" (Hofstede, 2005, p.4).

Interculturality can then be described as: "An increased consciousness of the constraints of our mental programs versus those of others" (Hofstede, 2005, p. 365). There are different perspectives on 'interculturality', 'cross-culturality', or 'transculturality'. Where positivist theories (Kharkurin, 2012) focus more on facts as length and age of arrival in another culture, and the measuring of individual values, within social constructivist theories the dynamics of interactions are investigated (Bhatti, 2014; Byram, 2012).

A cultural environment represents only one example of context. Apart from context, according to Sternberg and Lubart's (1991) multivariate theory, creativity is influenced by personality (together

with other conative, cognitive, and emotional factors). Creativity is most significantly related to the personality trait "openness to experience" amongst the Big Five traits (Batey & Furnham, 2006; McCrae 1987; Dollinger, Urban, & James 2004).

This study searches for possible relations between personality and creativity in different cultural contexts. Little is known about the differential influence of personality in diverse cultural contexts.

Creativity and openness to experience

Studies on the relation of personality and creative performance, show that openness is repeatedly associated with creativity on a theoretical and empirical base (Batey & Furnham, 2006; Dollinger & Clancy, 1993; Dollinger & Clancy Dollinger, 1997; Dollinger, Leong, & Ulcini, 1996; Dollinger, Preston, O'Brien, & DiLalla, 1996; Dollinger et al., 2004; Johnson, 1994; McCrae & Costa, 1997; Ostendorf & Angleiter, 1994; Urban, 1990; Urban, 1995; Urban & Jellen, 1996). Openness can be defined as: sensitivity towards fantasy, feelings, aesthetics, ideas, actions and values (McCrae, 1987).

In a description of facets of the openness to experience trait, Eldesouky (2012) notes that all facets have in common the involvement or engagement in novelty and complexity. Involvement and engagement concerns the (inner and outer) environment or context.

In Dollinger et al. (2004), openness not only correlated with almost every measure of creativity but also revealed to be the only significant predictor of criterion measures of creativity, by controlling for other creative personality measures from the Adjective Check List (ACL; Gough & Heilbrun, 1965, 1983). A meta-analytic review confirmed the predominant role of openness for creativity (Feist, 1998). Openness to experience is supposed to be the determinant feature in Urban's componential model of creativity (Urban, 1990; Urban, 1995; Urban & Jellen, 1996). Urban states that openness together with uncertainty avoidance best predicts creativity.

How does a creative person then engage with a multicultural environment, and how is this process for students? Interesting in this respect is Edward Taylor's (2012) theory on "transformative learning". He states that:

> "… social change may need to precede individual change, and in another context, individual transformation drives social transformation and so forth. The outcome is the same or similar – a deep shift in perspective, leading to more open, more permeable, and better justified meaning perspectives (Mezirow, 1978) – but the ways of getting there can differ depending on the person or people or context or situation." (Taylor & Cranton 2012, p. 3)

For Taylor and Mezirov, multiculturality should ultimately lead to more openness of individuals. What is the relationship between creativity and openness, as engagement with an environment, in different cultural contexts?

Creativity and culture

When analysing the relationship between personality and creativity in different cultural contexts, the definition of culture needs to be narrowed down. In the Encyclopaedia of Creativity (1999) it is stated that: "Original ideas, processes, and products can be accepted and promoted more easily when they are placed within the framework of the values of the sociocultural system" (p. 456). In the edition of 2011 this idea is taken out. It would be interesting to know the reason behind this decision. Do we understand the dynamics of culture in relation to personality and creativity? Until now, empirical research on cultural differences in creativity mainly focused on group or cultural differences, as expressed in values. Group differences in creative performance are explained according to diverse values. Examples are the Western-Eastern difference of Independence-Dependence (Niu & Sternberg, 2001), the American-Chinese difference of Individualism-Collectivism (Zha, Walczyk, Griffith-Ross, Tobacyk, & Walczyk, 2006). The

Russian, United States (U.S.A.), and Iran differences in creative performance are not related to differences in values but to differences in the Educational system (Kharkurin & Motalleebi, 2008). Iran shows a larger difference in creative performance compared to Russia and the U.S.A. Iran also scores relatively high on the cultural value of uncertainty avoidance (Hofstede, 2001). So it might be interesting to consider the factor of uncertainty avoidance when analysing these differences as well. Uncertainty avoidant cultures can be described as less "open". In more uncertainty avoidant cultures the idea prevails that "What is different is dangerous" instead of "What is different is curious" (Hofstede 2001).

Uncertainty avoidance as cultural value has rarely been examined in relation to cultural differences in creativity, despite the fact that research indicates that uncertainty avoidance as personal attitude is related to creativity. Maybe one reason is explained by the following research: Steel, Rinne, and Fairweather (2011) explain why they do not find a relationship between innovation and uncertainty avoidance on a national level.

Uncertainty avoiding countries may be better at developing innovative ideas into new products and services as implementation requires attention to detail and punctuality. Uncertainty accepting countries, however, may be better at coming up with innovative ideas and with basic innovations. In either case, uncertainty avoiding and accepting, innovation does take place. It is the form of innovation that changes. (Steel et al., p. 14)

The fact that no correlation is found between uncertainty avoidance as cultural value and innovation on a national level does not mean that there is no relationship at all. There are few studies on how uncertainty avoidance as cultural value relates to creativity.

There is even less evidence on how openness to experience, as engagement and involvement, interacts with cultural values in high or low uncertainty avoidant cultures. How does this interaction contribute to creativity? Acculturation as the process of immigration is commonly reduced to global indicators or proxies. These proxies are for example 'length', 'from what age on', and 'languages spoken at home' in a new cultural context. With 'length' and 'from what age on', the 'cultural exposure coefficient' can be calculated.

It appears that only the length someone lives in a foreign country is related to increased creativity (Kharkhurin, 2012). With global indicators, no psychological processes related to interfering personality traits and attitudes are studied. As a first step in unraveling the relationship between personality and creative performance in different cultural environments, two different cultural groups are studied.

Methodology

Participants

Data collection is realized in 2013 at the University of Luxembourg (UL) and University College London (UCL). The sample consists of 243 participants (199 women, 44 men, M_{Age} = 18.89, *SD* = 13.41, age range: 18-32 years). The cultural groups represent a practical choice. Concerning cultural background, only broad answer categories are used. Categories consist of European, Asian, African, North American, and other. No differentiation is made concerning different European backgrounds. Based on this fact, in the present study non-Europeans are considered as immigrants and Europeans as non-immigrants.

Instruments

For measuring *creative potential* we resort to the Test of Creative Thinking Drawing Production TCT-DP. It differs from common divergent thinking tests by incorporating a more convergent-integrative (Lubart, Pacteau, Jacquet, & Caroff, 2010) or holistic and gestalt-oriented (Urban, 2005) approach to creativity. It has been validated and normed across different countries (Lubart et al., 2010) and across a broad spectrum of age and ability groups. It has been generally acknowledged as culturally fair (Urban, 2005).

Traditionally, the TCT-DP is scored according to 14 categories: continuations; completion; new elements; connections with a line; connections made to produce a theme; boundary braking that is fragment-dependent; boundary braking that is fragment independent; perspective; humor and affectivity; four kinds of unconventionality; and speed. According to the "Gestalt" approach a creation exceeds the sum of its parts (Urban, 2005). Hence, only the total score meaningfully represents creativity. An inter-rater reliability of α = .85 is established for this scoring system. This first scoring system allows establishing two factor scores: originality factor FO and adaptation factor FA.

Statistical Originality SO is a second scoring system of the TCT-DP. It is calculated by the statistical frequency of a given idea within the respective sample. An originality score is computed through the sum of FO and SO.

Personality is assessed through a 10-item short version of the Big Five Inventory (BFI-10) (Rammstedt & John, 2007). It consists of 10 short phrase statements, using a five-point scale (1 = "disagree strongly" to 5 = "agree strongly").

Each Big Five dimension consists of two core items. They are chosen according to several criteria: (1) the opposing poles of every dimension are meaningfully represented, (2) without being redundant, both items measure fundamental aspects of the respective dimension, (3) cross-cultural use gets enabled through the choice of identical German and English items, (4) remaining choice is based on item analysis and factor analysis. Convergent validity, as well as reliability, is assured (mean α = .75) (Rammstedt & John, 2007).

Results

Descriptive statistics

Table 1: Means and standard deviations for creativity and personality variables.

Variables	*M*	*SD*
TCT-DP Creativity[a]	26.71	6.55
FO Originality Factor[b]	17.09	6.08
SO Statistical Originality[c]	3.55	2.26
Originality[d]	20.64	6.93
FA Adaptation Factor[e]	9.61	2.04
Openness[f]	20.05	6.46
Extraversion[g]	28.08	6.85
Agreeableness[h]	17.28	5.55
Conscientiousness[i]	32.15	6.42
Neuroticism[j]	23.95	8.12

***Note*:** [a]Theoretical range = +10 to +46; [b]theoretical range = +2 to +30; [c]theoretical range = 0 to +10; [d]theoretical range = 5 to +39; [e]theoretical range = +6 to +18; [f]theoretical range = +4 to +34; [g]theoretical range = 10 to +48; [h]theoretical range = +4 to +35; [i]theoretical range = +15 to +46 [j]theoretical range = +4 to +45.

Table 2: Correlation matrix of creativity and personality variables in the total sample.

Variables	1	2	3	4	5	6	7	8	9	10
1. TCT-DP	1	.95**	.34**	.94**	.66**	.24**	.03	.07	-.12*	.10
2. FO		1	.28**	.97**	.38**	.22**	.00	.10	-.09	.05
3. SO			1	.51**	.32**	.12*	.02	.05	-.10	.03
4. Originality				1	.42**	.23**	.01	.10	-.11*	.05
5. FA					1	.15**	.08	-.04	-.12*	.16**
6. Openness						1	.02	.36**	-.02	-.04
7. Extraversion							1	.21**	.04	-.36**
8. Agreeableness								1	.11	-.03
9. Conscientiousness									1	-.03
10. Neuroticism										1

Note: * p< .05 level; ** p< .01 level. TCT-DP: Test for Creative Thinking-Drawing Production; CAT: Consensual Assessment

Table 3: Correlation matrix of creativity and personality variables in non-immigrants (European).

Variables	1	2	3	4	5	6	7	8	9	10
1. TCT-DP	1	.94**	.36**	.94**	.68**	.26**	.02	.01	-.12	.09
2. FO		1	.28**	.98**	.40**	.28**	.00	.07	-.10	.04
3. SO			1	.49**	.36**	.15*	.00	.02	-.12	-.01
4. Originality				1	.45**	.29**	.00	.07	-.11	.03
5. FA					1	.11	.06	-.11	-.11	.15*
6. Openness						1	.05	.33**	.02	-.09
7. Extraversion							1	.25**	.03	-.35**
8. Agreeableness								1	-.05	-.11
9. Conscientiousness									1	.04
10. Neuroticism										1

Note: * $p < .05$ level; ** $p < .01$ level. TCT-DP: Test for Creative Thinking-Drawing Production; CAT: Consensual Assessment

Table 4: Correlation matrix of creativity and personality variables in immigrants (non-European).

Variables	1	2	3	4	5	6	7	8	9	10
1. TCT-DP	1	.98**	.32**	.94**	.29*	-.30**	.07	.17	.00	.05
2. FO		1	.30*	.95**	.11	-.32**	.02	.17	-.02	.04
3. SO			1	.58**	.22*	.00	.07	.13	-.02	.19
4. Originality				1	.16	-.27*	.04	.19	-.02	.09
5. FA					1	.02	.25*	.02	.07	.08
6. Openness						1	-.20	-.10	.01	-.17
7. Extraversion							1	-.18	.20	-.40**
8. Agreeableness								1	-.25*	.34**
9. Conscientiousness									1	-.37**
10. Neuroticism										1

Note: * $p < .05$ level; ** $p < .01$ level. TCT-DP: Test for Creative Thinking-Drawing Production; CAT: Consensual Assessment

Discussion

The surprising inversion of the positive correlation between creativity and openness can be related to migration and the process of acculturation. Uncertainty avoidance as personal attitude is proposed as a possible mediator between openness and creativity, in the sense that people higher on openness automatically become less tolerant to uncertainty during the acculturation process. The heightened uncertainty avoidance then diminishes creativity.

The proposed process will be elaborated. In the introduction the individual and then culture were focused on. The following paragraphs offer two explanations of interaction between the individual and the culture. The first explanation corresponds to the empirical (quantitative) research tradition. The second one refers to the socio-cultural tradition (qualitative) and offers a new perspective on the dynamics of the culture and the individual.

Acculturation and creativity

The first explanation refers to acculturation theories. Classic acculturation theory (Berry, 1997) distinguishes 4 processes: assimilation, integration, separation, and marginalization. To distinguish more psychological processes during acculturation, a multidimensional concept differentiates between (1) behavioral, (2) identity, and (3) value-based acculturation (Schwartz, Kim, Whitbourne, Zamboanga, Weisskirch, Forthun, & Luyckx, 2013). These represent three domains that can all be related to creativity. Behavioral acculturation is concerned with language and customs (Kharkurin, 2010; Leung & Chiu, 2010; Maddux & Galinsky, 2009). Identity-based acculturation research shows that identity-integration increases creativity (Viki & Williams, 2014). Biculturalism as identity blending, predicts domain-general creativity, but only in bicultural and not in mono-cultural contexts (Saad, Damian, Benet-Martínez, Moons, & Robins, 2013). Different mindsets together with higher

levels of perceived cultural distance are related to more adaptiveness in creative insight tasks (Cheng & Leung, 2012).

Value acculturation and creativity is sometimes related to identity. For Schwartz (1994) however, value acculturation is a distinct process from identity acculturation. This perspective allows focusing on other psychological processes of acculturation in relation to creativity. Research on value acculturation shows, for example, that values of Chinese adolescents in the U.S.A. and in Australia change with acculturation. There is also a difference between first and second generation migrants in rate and extend of change of values, depending on the respective values. The value of 'tradition' changed rapidly (Feldman, 2010). Portuguese mother-daughter dyads living in Luxemburg showed that first and second generation migrants still rated 'conservation' values higher than Luxemburgish participants (Albert, Ferring, & Michels, 2013). Schwartz (1994) value of 'self-transcendence' ('universalism'/'benevolence') appears to be related to self-rated multiculturalism (Murdock & Ferring, 2013). 'Self-transcendence' is related to openness to experience. Murdoch and Ferring's study further also demonstrated that changes concerning conformity values are part of the acculturation process

In an overview of the facets of the openness to experience trait, Eldesouky (2012) mentions that all facets have in common the involvement or engagement in novelty and complexity. Engagement refers to the environment or broader context.

A recent study on uncertainty avoidance showed that migrant students in a primary school, regardless of their cultural background, scored significantly higher on uncertainty avoidance as personal attitude, than their non-immigrant peers (de Vries, 2012). How does a change in uncertainty avoidance influence the engagement with the environment? A study on acculturation (Levinson & Rodebaugh, 2013) found that anxiety went up with discrepancies between the ought-self and the actual-self. This results in a focus on prevention strategies during acculturation. Prevention was explained as avoiding uncertainty. Thus, self-discrepancy leads to uncertainty avoidance. With higher openness to experience the self-discrepancy and accompanying anxiety increases. The more open a person is, the more they realize their incompatibility to the environment. This will be further enhanced in an assimilative environment, finally resulting in heightened uncertainty avoidance.

Those students who experience higher discrepancies have the more creative personalities. So the most creative personalities are least creative as immigrants. Hofstede and McCrae (2004) suggest that:

> Immigrants that are highly open to experience are likely to seek integration, because they can appreciate the values and perspectives of both the original and the acquired culture. But if the nation they find themselves in is high on uncertainty avoidance and deviations from the prescribed norm are perceived as threatening, then they may be forced to assimilate or face marginalization. (2004, p.81)

Phinney, Horenczyk, Liebkind, & Vedder (2001) assume that schools are rather assimilationist. The pressure to assimilate on immigrant students would be higher in schools than in other social contexts. In summary, the results of this study suggest the following. Due to assimilation, immigrant students experience a larger ought-self discrepancy that heightens anxiety and causes avoidance strategies. Thus the students that are scoring highest on openness to experience are more uncertainty avoidant and their creativity therefore diminishes.

Cultural environment and creativity

The second explanation refers to theories of cultural dynamics, where two approaches coexist. Present-day theories that investigate the interaction of the individual and the culture can be divided into sociocultural (qualitative) and empirical (quantitative) research. In both research traditions, the aim is to understand the interaction between the individual and the culture. The concept of uncertainty, in a scientific sense, may again be applicable. It does not correspond to a cultural value or

personal attitude. Individual, environment, and interaction between both, cannot be measured at the same time. Heisenbergs' (1930) famous principle of uncertainty states that the more precise one property is known, the less precise the other will be.

In socio-cultural research the focus is the interaction between the individual and the environment. However, it seems that the concepts of the individual and the environment merge and dissolve, theoretically speaking. On the other hand, if research focuses on the individual and the environment as distinct concepts, it seems difficult to conceptualize interactions. Additionally, there is danger of the ecological fallacy. Hence, either the interaction or separately, the individual and the environment can be measured. As a result, still little is known on the interaction between the environment and the individual. This also applies to creativity.

The chapter on the relationship between environment and creativity in 'Defying the Crowd' describes literature in this domain. A recurrent theme is that opposing viewpoints exist. For example, if task constraints and competitiveness of the environment, enhance creativity, the effects of the environment and the situation determine if creativity is fostered or not (Lubart & Sternberg, 1995).

According to Simmel "A condition for the existence of any aspect of life is the coexistence of a diametrically opposed element "(Levine, 1985, p. 9).

> For Simmel, conformity, individuation, antagonism and solidarity, compliance and rebelliousness, freedom and constraint, publicity and privacy, as so many sociological dualisms are compresent in social interactions and constitutive of various social relationships. These dualisms, he held, are inherent in social forms both because of man's ambivalent instinctual dispositions and because society needs to have some ratio of discordant to harmonious tendencies in order to attain a determinate shape. (Levine, 1985, p. 9)

In reference to the present research, both extremes exist within one culture (value) and within one person (personal attitude). This implies that for any cultural value and personal attitude, both extremes exist simultaneously. In the empirical tradition of research on cultural differences this is rarely taken into account. For example, in a predominantly individualistic culture, the collectivistic opposite will coexist. Moreover, depending on the situation, an extremely individualistic person can fall in the opposite extreme. The same principle applies to uncertainty avoidance. Although this paper focuses on uncertainty avoidance as personal attitude, this example could also be made for uncertainty avoidance as cultural value.

An individual's "ambivalent instinctual dispositions" interact and engage with the cultural environment. Triandis (2007) suggested that behavior is determined by two cognitions that interact: one derived from personality shaped by the culture and the other reflecting the situation. He distinguished between idiocentrics and allocentrics as individuals who behave and feel like most people in individualistic and collectivistic societies respectively. Yamada and Singelis (1999) showed that allocentrics who spent several years in an individualist culture had both high levels of allocentrism and idiocentrism. This finding illustrates the interaction between the individual and the environment. With interaction is meant the dynamism and not a statistical interaction. Referring this finding to Simmel's theory, in a new cultural environment for a specific individual, the "ratio of discordant to harmonious tendencies" might change.

In the present case, we assume that there is a change in uncertainty avoidance of migrant students that together with openness provokes the interaction between individual and culture to result in a loss of expression of creative potential. This means that migrant students high in openness to experience cannot express their creativity anymore. Immigrant students that score high on openness and on uncertainty avoidance might be more sensitive to change in the opposing dynamics of a culture and as a result, if assimilation is required, the dynamic stagnates. This results in a static situation and not a dynamic one.

Specific measuring biases need to be considered in cross-cultural research. These include for example, specific answer tendencies in self-reports. Scoring is influenced by the reference group the respondent has in mind (Morren, Gelissen, & Vermunt, 2012; Poortinga & Vijver, 1987; Minkov, 2012). This might have influenced the findings in the present study. Another problem is that respondents in masculine countries tend to rate themselves more open to experience (Hofstede & McCrae, 2004). However, both the Greater Region of Luxembourg and London, England score relatively high on masculinity, so it cannot influence the results.

Future research should be conducted in the form of longitudinal studies, assessing personal characteristics before and after immigration. They should include personality, attitudes, and cultural values in the prediction of creativity. It might for example be interesting to include the Myers–Briggs Type Indicator (MBTI) assessment together with the Big Five. Currently, little is known about the stability of creativity before and after the immigration process. Instead of enhancing creativity, migration seems to diminish creativity. Hence, the question remains if multiculturalism is beneficial to creativity. Moreover, the interaction between uncertainty avoidance as personal attitude and as cultural value should be investigated during the process of acculturation. In summary, the perspective of Simmel's theory, acculturation, and creativity may give new insights in how personality and context interact during the creative process.

Conclusion

This study aimed to find a relationship between personality and creativity in two different cultural environments: London, England and 'The Greater Region of Luxembourg'. Results show that there is a change in the correlation between openness to experience and creativity. Exploratory research reveals a difference between migrant (non-European) and non-migrant (European) students. For the migrant students there is an inversion of the relationship between openness to experience and creativity. The more the students are open to experience, the less creative they are. To explain these findings, the influence of uncertainty avoidance as personal attitude is proposed.

The first explanation refers to the theory on self-discrepancy during the acculturation process that might explain avoidant behaviour. According to the second explanation, openness to experience as engagement with the environment, might explain a stagnation of the interaction process between the individual and the culture. This influences creativity negatively. Although in general, the idea of multiculturalism seems to enhance creativity, this study does not confirm this for immigrant students. The findings show that creative personalities, when migrants, might counteract their creativity through heightened uncertainty avoidance.

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The Significance of Creativity in Our Lives

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Abstract

This article explores the significance of creativity in our lives. It underlines the point that creativity gives satisfaction in our day by day living and in breakthroughs that change our lives. In a multitude of ways we cannot live without it. Synthesising instances of innovation in fields as diverse as medical research, haute cuisine, fragrance manufacture, business, science, storytelling and surrealist art, the article alerts readers to the pivotal role of creativity in education. The specific technique of synectics is outlined to give an example of encouraging creative thinking. With its scaffold of richly formed analogies, the technique expands perspectives on problem- solving to motivate and facilitate innovative achievement.

***Keywords*:** Creativity; satisfaction; problem solving; scientific discoveries; cultivation.

The best educators have always aimed to foster the skills needed to perform non-routine tasks, to teach for life not for school.

"… for life, not for school. All of life, as seen by the Organisation for Economic Co-operation and Development" (OECD, Pisa, 2012: 30) is problem-solving. While life is also about reveries and play, it is the readiness and capacity for thinking about the non-routine and the non-formulaic aspects of life that we need to practise. Students, then, are at school to hone the skills needed for their living day by day – "problem solving, adapting, learning ... daring to try out new things and always being ready to learn from mistakes". These are the skills they need to acquire, in order to live in a world that is unpredictable. That life, then, is about creativity. The premise and goal of this paper is to underline the point that one cannot live without creativity. The mind might be perceived as "an endlessly shifting chain of connections" (Greene, 2012), imagining all sorts of possibilities. Harnessing this to creative productivity- meaning novel and valuable- needs to be the goal of all educators and all learners, whether in a school or in a workplace. The paper itself also attempts to build many chains of connections, exploring the significance of creativity across disciplines, and how best we can elicit such connections for lifelong benefit.

In fact the OECD's concern was expressed in a metaphor heard more than eighty years ago:

> "Many schools are like little islands set apart from the mainland of life by a deep moat of convention and tradition. Across the moat there is a drawbridge which is lowered at certain periods during the day in order that the part-time inhabitants may cross over to the island in the morning and go back to the mainland at night. Why do these young people go out to the island? They go there in order to learn how to live on the mainland." (Carr, 1942:34 in McGaw, 1991)

With echoes from Carr's words, the Pisa report stated that: "...today's 15 year olds are the Robinson Crusoes of a future that remains largely unknown to us" (OECD, 2012:28). The island of the classroom must be a microcosm to equip us for what is beyond, in constantly changing societies. The classroom in fact needs a drawbridge of relevance, innovation and challenge that stays down permanently, to connect it to that world outside. To respond to the challenges and complexities of our twenty-first century, the Australian Curriculum states that we should encourage young people:

> "... to be creative, innovative, enterprising and adaptable, with the motivation, confidence and skills to use critical and creative thinking purposefully." (General Capabilities, Australian Curriculum, 2012)

Challenge

While creativity means having original ideas that have value, implementing them and persuading others of their worth indicates successful change or innovation. In relation to this, Daniel Pink (2012) has emphasized the need for us to motivate our students, to "sell" them the challenge of conveying their ideas and persuading others. Thus, we need to encourage our learners to think creatively in solving real-world problems, through authentic learning experiences that will connect them to the world beyond the school gate. In this way they start to think about solutions that will make a difference. Seeing the gaps is the beginning of problem-solving and the beginning of a creative thinking path to finding solutions and to convincing others.

Problem-solving in diverse fields is the crucible for the creative product. The writer, for example, can "transform" life experiences with the "alchemy of fiction" (Forsyth, 2014), and that fiction needs to appear more "true" than facts. A combination of both analysis and intuition engages the reader, who takes a leap of faith as the story is told through a "series of events which is driven by the protagonist's attempt to resolve a source of conflict" or to solve a problem.

Whether scientific discoveries or poetic inspiration… the common thread is that we cannot live without creativity. Analysis is essential to deconstruct what is before us, but synthesis will allow for making the links that construct a new meaningfulness. To be creative we need the fundamental knowledge in a particular domain, which we break apart and put back together into a new synthesis, transforming the raw materials, or known facts, so that something new emerges.

The Australian Curriculum recommends that both creative and critical thinking be encouraged across all subject areas. This is in fact a key way to assess differences in learners' individual achievement. Thus, challenging and engaging students to aim for their maximal achievement is expected to become more of a daily reality and routine. The New South Wales Board of Studies (2012) has defined creativity as:

> "… *generating an idea* which is new to the individual, *seeing existing situations in a new way*, identifying alternative explanations, *seeing links*, and *finding new ways to apply ideas to generate* a positive outcome."

Schools, then, are for life-long learning and learning for life; whatever the field, creativity is pivotal to life's achievements (Renzulli; Forster, 2012). Creativity is about ideas that bring about changes for the better. If "ideas are the raw material of change," as Geldof (2013) urged in helping to solve humanitarian issues, then for meaningful change to occur we had better focus on producing ideas imbued with passion, with perseverance and with a problem-solving purpose. In solving problems of poverty, imagining new possible solutions is a question of survival and well-being. This requires perseverance, such as that of Magali Malherbe (Dumoulin, 2014), who through camps and projects and raising funds has tried to solve the problems faced by more than 800 orphans and adolescents in South Africa. We can look at problems again with a new frame of reference and hit upon something that "no-one else has imagined" (Greene, 2012:8), as an expert might, but with the original eye of a novice:

> "To move forward society needs geniuses–those rare individuals whose flashes of insight and imagination change the way we live and see the world." (Caulkin, 2000)

Transformation and association

Why we cannot live without creativity is very evident through the inventiveness we see in diverse fields. Whether it is technology or the Tour de France, the design of a chair or a Chanel fragrance, slow cooking or slow travel, it is about our mind's digestion of the raw ingredients and how they are transformed into new components that nourish even more. Achievement in the culinary world, for example, means that master chefs produce different combinations, and traditional dishes are appropriated –as an artist or a writer might–to create new recipes for success. For culinary

creativity, one has to think like a chef (Colicchio, 2000), maintaining the passion, the dedication and the mindful cooking that transforms, with care, the best ingredients into purest culinary perfection– "cooking as alchemy" (Glynn, 2004).

In this way, too, inventive and evocative fragrances evolve. Coco Chanel's perseverance, in combination with technical expertise and imagining what was possible, put her at the forefront of innovation. Finding a niche in the market, and fulfilling the needs of potential consumers required an independent spirit. Sating the senses is necessarily one of life's needs. When a new fragrance or a new master chef invention is created, its surprise element comes from the unexpected marrying of distinct perfumes or flavours, such as ginger and mandarin zest. Depending on the cultural context, the exotic nature of such products appeals also to the imagination. Via their fragrances or flavours, these creations actually "make sense", through their connection with our personal connotations. This is a strategy available to educators, that is, to use the students' personal connotations or what occurs to them from their background as a valid response and tool for their learning. In this way we differentiate their learning. A product, of course, can be life-changing or simply lifestyle enhancing. The original transformation from raw materials is key to all creativity.

The analogy of slow cooking, perhaps a digestive cogitation, has in fact been utilised by Sir Ken Robinson to parallel the notion of slowing down our learning and thinking, so that we have time to make links, to step back and look at problems in new ways, and to come up with new strategies and perspectives. As in other fields, optimal learning and performance require more than close observation. The concept of slow thinking has parallels in the work of Kahneman (2011) who encourages thinking that is slow enough to allow for analysis and making connections, rather than accepting the quick, straightforward, spoon-fed answer– again an attitude we need to encourage in our school learners.

The slow cultivation of ideas to fruition, and the need for connectedness, remind us also of "slow cities" as they face environmental challenges and build more parklands for quiet contemplation. Indeed, slow travellers – learners in an unfamiliar setting – who take time to marvel rather than adopting the tourist checklist approach, might be a useful metaphor for the creative thinker. Contemplation while seated on a park bench in the Jardin du Luxembourg in Paris, for example, might be more of an achievement than zigzagging across the city, as a dragonfly skims the surface of a lake, failing to accumulate any depth of experience. When we train students to adopt these attitudes and in-depth approaches to their own endeavours, we give them the prerequisites for being creative achievers beyond the school walls. By way of example, Laurent Aron (2014), from the Ferrandi Culinary School, encourages teachers to use creative thinking techniques such as the "cadavre exquis" ("exquisite corpse"), which depends on new associations derived from previous sketches or phrases passed on by another student. Used both in art and in writing, this strategy specifically aims to elicit risk-taking and originality, which necessarily go hand in hand. The expertise plus the novice effect can equate to innovation.

Cultivation as a metaphor for learning (Seeley and Brown, 2011) emphasises that the imagination is the most important tool in a continually changing world; cultivation implies that we keep learning, growing and putting out exploratory feelers for new understandings. The founder of the "exquisite corpse" technique, André Breton, was also the leader of the surrealist movement. In the 1930s he often met others in French cafés, to collaborate and to encourage imagination. In surrealism's earlier days, one of the members of the surrealist "tribe" was Salvador Dali; he was renowned for juxtaposing unexpected objects and concepts. His groundbreaking painting *À la recherchée de la quatrième dimension* (1979), for example, is considered an example of Dali's curiosity that puts out mindful "roots" to utilise what has gone before in art history, along with antenna-like "shoots" to seek out and make sense of future possibilities (Descharnes and Néret, 2003).[1] If we consider, for example, Poincaré's (1902) mathematical imagining of the fourth dimension, and its relevance to Dali's work, we can see that art facilitates "chains of connections", linking different phenomena and traversing disciplines – an approach that is valuable in uncertain times.

Anticipation and uncertainty

The ability to cope with uncertainty and to withhold judgment are qualities needed for the creative understanding of changing times. This "tolerance of ambiguity" is considered to be a distinguishing characteristic of creative thinkers (Piirto, 2011).

In order to become tolerant of ambiguity we need to be aware of "anticipatory assumptions" (Miller, 2014), which entails embracing complexity and imagining possibilities, rather than over-reliance on previous patterns. In this way creativity is again seen as vital, because it alters, with a metacognitive lens:

- What we see;
- What we imagine;
- What we resist;
- What we preserve;
- What we want to preserve;
- What changes; and
- What the conditions of change are (Miller, 2014).

Along similar lines, Popper (1957) discussed historicism, which assumes that the ability to make historical predictions is possible if we have a grasp of historical "patterns" ('rhythms' , 'laws' or the 'trends'). However, in the growth of human knowledge "we cannot anticipate today what we shall only know tomorrow". Educators need to encourage the connection-making attitude of openness, uncertainty and seeking to find out. Similarly in the sporting arena, larger-than-life characters intrigue us with their prowess that leads to breakthroughs.

In the Tour de France cycling event, for example, as reported in the Paris newspaper, *Le Figaro* (7th July, 2014), the cyclists must be attuned into thinking of all sorts of possible ways to overcome adversity: "...dans le Tour il faudra savoir attraper toutes les possibilités. By shifting gears mentally, the innovator makes a paradigm shift to come to grips with the problems of change itself.

Seeming predictability informs our everyday breakfast scenarios, which are full of disguised breakthroughs from past inventiveness. The everyday patterning of our lives belies the inherent innovations of which we are unaware. Sitting down on a *chair,* at the *table* and eating cereal from a *bowl* with a *spoon*, to sip carrot and celery *juice* through a *straw* and a *skim piccolo latte* from a specially sized *glass* is to experience creativity (a mélange of nutrients) at breakfast. All of these objects and products have been synthesized from things that were there before but not envisaged for their potential usefulness or pleasure– all filling a gap or a need of some sort.

Turning to the *newspaper* at the breakfast table we pause at the page that encourages us to draw on "genuine heroes" and to try to make them household names, emulating their goal-setting and aspirations. Such great achievers might include the Australian molecular biologist Elizabeth Blackburn, who won the Nobel Prize for her discovery of telomerase, an enzyme which may assist in combatting cancer. Another potential hero is John O' Sullivan, the electrical engineer who with his team created the technology that made *wi-fi* possible.

Whether they are everyday or long-lasting heroes, "...true heroes have legacies greater than the trinkets of their victories" (SMH, July 20, 2014:16). Their role is to raise hopes, to encourage perseverance and to gain social recognition for unparalleled achievement. They draw their success from combining "analysis and feeling", with "rigour and improvisation" in taking a chance (Bégaudeau , *Le Monde*, 2014:2).[2] The creative product of their inspiration and their imagination makes the difference, and to encourage this in our children we can teach them a sense of wonder at human ingenuity.

Risk-taking

By adopting learning approaches that require students to develop an inquiring attitude, to pose problems and find solutions, rather than over-reliance on rote routine, we can encourage the curiosity and perseverance that will help students to look beyond the textbook and beyond the *google* search, to synthesise a new solution. Thus, students step from the island to the mainland shore of life. There, an invested self may acquire the perspective of the "outlier" who takes risks and who pitches against the odds, embodying the true spirit of innovation. Without creative thinking and its inherent motivation we are left with predictability and lack of growth; it is a surface (or "dragonfly") approach to experience:

> "... poets would give up striving for perfection and write commercial jingles …. Physicists would stop doing basic research and join industrial laboratories where the conditions are better and the expectations more predictable." (Csikszentmihalyi, 1996).

Anticipatory theory suggests that we utilise past experience while at the same time attempting to shift in an unforeseen way; we continue to "rethink our view of the unknown" yet with the courage to go beyond the "tried and true" (De Botton, 2009).

Transforming information into a new product or outcome is more about experimenting than predicting. Creative ideas can be "thought experiments within one person's mind" (Marshall, 2013). Forsyth's description of the writing process parallels this thinking; she suggests that we start with a character image that raises a question or poses a problem, and we "visualise steps to a door at the end, where the subconscious tells us what is on the other side". The purpose in writing, as Forsyth sees it, is to "pin down the ephemera of your life", ultimately a sense-making activity. Surely this has valuable parallels for all learners, in their pursuit of wisdom synthesized from their diverse and perhaps disjointed experiences in life-long changing circumstances.

Innovative leadership

An Australian leader at one time expressed the view, as an ex-Prime Minister, that "leadership has always been about two main things: imagination and courage" (Keating, 2011). Having the vision as well as being able to take political risks and persevere to put that vision into action, turns the true innovator into being both the "ideas person" and the "can-do person" who work in collaboration.

The intrinsic motivation and self-direction of creativity points to the importance of integrating creative thinking into learning opportunities, as well as into opportunities for leadership. Professional learning needs to mirror the innovation that educators want to see in classrooms. To have teachers collaborate and imagine alternative classroom provisions to challenge their students is essential for change.

> "Leaders must tap the imagination of employees at all ranks and ask inspiring questions. They also need to help their organizations incorporate diverse perspectives, which spur creative insights, and facilitate creative collaboration by, for instance, harnessing new technologies. The participants share tactics for enabling discoveries, as well as thoughts on how to bring process to bear on creativity without straitjacketing it." (Amabile and Mukti, 2008)

Creativity has been nominated as the number one leadership competency, according to an IBM survey of fifteen hundred CEOs (Dyer, Gregerson and Christensen, 2012). Our tradition of "follow the leader" thinking has tended to inculcate a model of leadership which does not seek out or reward innovative thinking. Rather, we should concern ourselves with being "inspired by the leader". Professor Young (2014), Vice-Chancellor of the Australian National University, in his address to the Press Club, indicated that if Australians, as global citizens, are going to be truly innovative and continue to make contributions (such as the cochlear ear implant or penicillin discovery), they need to champion an innovative spirit instead of complacency.

If innovation is allowed to drive industry closer links will be developed between higher education and research and development in industry. It is ideas and their application that make a difference and that bring about changes for the better.

Purpose, passion and perseverance

For a creative idea to have impact, however, persistence, passion, purposeful problem-solving and self-direction all need to coincide for real performance. Investment of ourselves (Cropley and Cropley, 2000: 4), as is evident in a poet's passion, and a sense of "flow" (Csikszentmihalyi, 1996), are the benefits and requirements of creative thinking. Flow has been described as a "state of peak performance when the group is in sync and creative ideas are flowing" (Sawyer in Gaggioli, 2014). Creative productivity benefits both producer and consumer:

> "Students work on a problem or issue that the teacher and students see as connected to their personal experiences or contemporary public situations. They explore these connections in ways that create personal meaning. Students are involved in an effort to influence an audience *beyond their classroom*, for example, by communicating knowledge to others, advocating solutions to social problems, providing assistance to people, or creating performances or products with utilitarian or aesthetic value." (Newmann, King and Carmichael, 2007)

Thus, true innovation is encouraged so that ideas do not stay inert. They have influence beyond the classroom or the workplace. For girls it might be particularly important to be independent in their thinking – to be psychologically non-conformist, like the impressionist painter Berthe Morisot, for example – and for boys to be more imaginative. In this way we encourage our visionaries and innovators (Kerr, 2014). Conjecture, exploration and following one's imagination all need to become the order of the day.

While businesses are recognizing the power of creative thinking, the school gate seems to be shutting out the entrepreneurial thinking needed to open out to the market place and humanity. The Australian Curriculum is addressing this disjunction. If teachers are unsure how to teach entrepreneurship, then that sense of going beyond, of connecting classroom thinking to the outside world needs considerable development. Only if teachers are willing to do this will our students become the truly inventive and insightful achievers they should be.

Collaboration

An analogy drawn from science is useful in considering the importance of the culture that supports the creative process: "...a single element alone is inert but contact with other elements generates a reaction and leads to transformation" (Grégoire, 2014). Of relevance to the educator in a classroom, or to leaders in an office, is the idea that reframing, or taking a new perspective – like changing bike gears – plus the opportunity for collegiality or group work, allow for "interactive sense-making" or "collective intelligence" (Miller, 2014).

This is similar in some ways to the mass coordination of insects, although they lack the human ability to pose problems and to search for solutions.

> "Creativity exists in all human beings and in animals even insects – all constantly innovating things … they have the power and force to create something new from something old." (Viola, 2014)

It is collaboration that facilitates the fruition of "game-changing" ideas, whether in health issues, such as the recent findings on the multi-drug tolerance of tuberculosis bacteria , or in other fields, for example the 18th century mathematical paradigm shift in interpreting negative numbers (Grégoire, 2014).

There is in addition a much-needed focus, as expressed in Goethe's words, that "in the realm of ideas everything depends on enthusiasm… in the real world all rests on perseverance". While often it is the individual who pursues a valuable line of invention in designing and engineering, it is more often the case that a whole team or a "swarm" is needed. Collaboration is fundamental to production:

> "Those who change the game to fit changing circumstances are curious, they collaborate with individual purpose like the bee within the swarm." (Ben-Meir, 2012)

Innovation

It is important not to confuse creativity with innovation. As Marshall states:

> "... the main difference between creativity and innovation is the focus. Creativity is about unleashing the potential of the mind to conceive new ideas." (Marshall, 2013)

In the twenty-first century, dependent as many of us have become on seeking progress and ease of living, it does not make sense to live without a telephone, a car or a computer. Referring to Jonathan Ive, head of design with the Apple company, Arlidge states:

> "We use Jonathan Ive's products to help us to eat, drink and sleep; to work, travel, read, listen and watch; to shop, chat, date...Many of us spend more time with his screens than with our families. Some of us like his screens more than we like our families.... With just a tiny white box with a scroll wheel, he put 1000 songs in our pocket...." (Arlidge, 2014: 17)

"A thousand songs in our pocket" is indeed the tune of innovation. To be innovative one has to wonder, one has to collaborate, one has to generate and connect ideas and be prepared to act on them and try them out. Innovation, then, results from ideas plus their application (Anthony, 2012).

> "Without the likes of Alexander Graham Bell, Henry Ford and Jack Kilby and Robert Noyce (inventors of the integrated circuit), we would not have telephones, cars or computers – the defining innovations of the modern world." (Caulkin, 2000)

Technology as a tool is the ultimate maker of connections, and what better example than Martin Cooper's cell-phone innovation? The cell-phone brings into our lives all the elements of imagination that one might wish for: it is wireless, portable, compact and expandable.

For true innovation, imagination and ideas are fundamental. The essential qualities of an innovator, according to Wagner (2012: 16) are:

- Curiosity;
- Collaboration;
- Associative or integrative thinking; and
- A bias toward action and experimentation.

According to Gail Kelly (2014), the CEO of Wespac, a major Australian bank, businesses globally are aiming to embrace "...innovation, imagination and creativity", considered to be essential for the "new knowledge economy". To this end, the bank launched a $100 million educational scholarship program to help research students to grow the technological and creative skills considered crucial for future development. The learner, then, would do well to think like an entrepreneur, acquiring the twin creative characteristics of risk-taking and initiative.

Imagination

> "Educators want to give us all the information so it is absolutely clear… if we give people too much information we create an information overload which becomes a very negative thing… A kind of pollution we have to separate it out." (Viola, 2014)

Information overload leaves little room for imagination or for inquiry. Entrepreneurship, however, though generally seen as a business attitude, is also a creative thinking attitude integral to high performance. It is dependent on a sense that:

> "... the present order is an unreliable and cowardly indicator of the possible. The absence of certain practices and products is deemed by entrepreneurs as neither right nor inevitable but merely evidence of the conformity and lack of imagination of the herd." (De Botton, 2009)

The words of De Botton reiterate the dilemma to which the philosopher and scientist, Popper (1957) referred as "poverty of imagination":

> "The historicist continuously upbraids those who cannot imagine a change in their little world, yet it seems (s)he can't imagine a change in the conditions of change."

The Australian Industries Group considers that in the field of engineering, the process of invention and construction is quintessentially innovative. This model of course, has parallels with Osborne and Parnes' creative problem-solving approach, or with any research process. The purpose of such a model is to encourage the kind of thinking and skill-sets in science, technology, engineering and mathematics that will meet "... the emerging challenge of developing an economy for the twenty-first century":

ASK–IMAGINE–PLAN–-CREATE–IMPLEMENT.

Of interest, of course, is that curiosity, imagination, creativity and action are all embraced within this five-fold model. Robinson (2009), who views creativity as "applied imagination", has developed a classroom tool that embodies this model:

SEE-THINK-WONDER

This process could easily be applied to a work of art, to environmental phenomena or to an experiment to facilitate curiosity and associations. It in fact mirrors the scientific method and keeps alive the essential component of imagination.

Then again, the sequence could be reversed:

WONDER-SEE-THINK

This technique would have us form images prior to being influenced by our preconceptions. It recalls, in part, Sartre's (1940) preoccupation with the part that imagination plays in our experience of the world and in our understanding of phenomena. Imagination influences our responses to the world and even our sense of freedom.

Such direct models are needed to teach creativity in an explicit manner, combining expertise, imagination and purposeful depth of problem–solving. Problems will never go away, or we would already be well on our way to utopia, but we can alleviate them and we can dispel some of them. Why, then, would we want to live without creativity, the very goal of which is to find imaginative solutions?

Wonder

We are reminded of the acute observation skills of Sir David Attenborough, and his wonder, awe, curiosity, passion and reverence as he responds to the natural world. In the field, his awe is contagious. He observes closely, as a scientist would; patiently he waits, watches, collects, analyses and synthesizes information. His approach allows us to appreciate and to make sense of extraordinary natural phenomena. By way of example, we could consider the mimicry of a native Australian bird, the lyrebird, as something extraordinary in our environment. It picks up sounds from its surroundings - whether a chainsaw, a kookaburra, the click of a camera or a car alarm – and puts them in a vocal

"Dropbox" to access later, when needed. The lyrebird's vocal mimicry appears to be randomly assembled, with no attempt to select and to utter particular sounds in particular contexts That is where creativity is so significant in our lives; it works out what we might need in a given situation and comes up with multiple ideas sorted for their relevance and contextual meaning. Using the lyrebird's mimicry as a metaphor, we might make a creative leap to the idea of fusion music. We are reminded, through thinkers such as Attenborough, to return to wonder, to the power of the imagination that makes connections:

> "... reverence for all that is unlike us and exceeds us … we must make a particular effort of empathy and imagination to understand … a natural environment that is uniquely unpredictable, other and beyond us." (De Botton, 2009: 192)

Because it is "beyond us" we must harness the skill of anticipation, that openness to experience which does not dichotomise choices, beliefs and solutions but is prepared to wait and see and pursue Miller, 2014). Openness to experience is embodied in theatre and jazz improvisations. Indeed, to be inventive is the hallmark of musicians such as David Gray, considered by some to be the new Bob Dylan (Vincent, 2014). He had to deliberately embrace inventiveness and collaboration to generate in his music his so-called "creative crackle", the intangible edge, the appeal. A music fusion or hybrid exemplifies the need to imagine what is not audibly there but is possible, if we can grasp it through making connections, with a concomitant sense of aesthetics. Working in this way we can help learners "... respond to our enthusiasms by investigating the naive question of why and how we have been moved." (Alain de Botton, 2009)

The creative person remains alert to possibilities, resists closure and rejects over-reliance on ready-made formulae. Our social interactions are perhaps the ultimate form of connection-making. Over time we may find that the same old elements newly arranged are never really the same old elements. As Popper (1957) suggested, "novelty cannot be causally or rationally explained but only intuitively grasped." Synthesis in fact transforms and transcends what was there before.

Interdisciplinary ventures (crossing boundaries) and inspiration

The Australian writer Forsyth makes a literary paradigm shift as she transforms the fairytale genre by working on similarities and differences, analysing and then synthesising them into a new kind of fairytale – a metacognitive exploration. This transformation begins, however, with inspiration, which she describes as "lightning in a jar" (Forsyth, 2014) – perhaps something brewed, distilled and full of surprises.

Making connections across diverse fields inspires us to find ways to make a difference (Robinson, 2009). An "integral part of giftedness" is a greater facility in seeing links or in making connections (Cropley and Cropley, 2000: 4). If we are to match student needs we must encourage and promote opportunities for creativity to emerge, and we must recognize creativity as an essential component of learning for a future which "belongs to those who learn more skills and combine them in creative ways" (Greene, 2012: 64). We need both depth of knowledge and a new synthesis.

High order skills have always been at a premium, though now perhaps we are more aware of the idea that they are essential to living (Hannon, 2012); along with this awareness there is a renewed need to view education as a "totality" rather than an island away from the mainland of living, and compartmentalized into separated knowledge bytes. Hence the need for a cross-curricular perspective that demands collaborative learning. Novel ideas are pooled for purposeful problem-solving and innovation, leading eventually to real achievement on a global scale. . The outcomes may be a matter of freedom from famine, or for the more privileged, a matter of fashion. Whether the result be life-enhancement or luxury, Francesco Cista, the creative director at Calvin Klein fashions, has emphasised the importance of the creative "cutting edge":

> "To keep ourselves relevant we must innovate, we must challenge ourselves, we must take risks." (Smith, 2014: 38)

Teachers who encourage thinking capabilities through crossing subject boundaries and opening the classroom portals as a bridge to the outside world, are thereby enhancing their students' learning experiences to include the possibilities of innovation. Likewise, teachers who put cross-boundary thinking on the agenda, at both formal and informal meetings, are increasing their own professional learning, thus enabling them to widen the options available to them in meeting their students' differing needs. The *watercooler conversations* in the workplace expand from the banal and straight-forward to *watercolour conversations,* where learning boundaries are indistinct and where they expand to cloud-filled horizons or outcomes. Blurred lines, uncertainty and new perspectives are to be expected, though perhaps not in any predictable direction. It is out of this ambiguous blur that we construct a meaning. As the photographic artist Bill Henson (2004) suggests, "Shadows can animate the speculative capacity in the viewer…what you can't see in the photo has the great capacity to transmit information". A vital characteristic of creative thinkers is their tolerance of ambiguity and their willingness to accept what is unconventional or uncertain. This is what discovery learning – across disciplines – needs to encourage. .

Connections and revelation

Creativity's ability to reveal a new perspective is well exemplified in the public discussion of a sculpture selected for an open space in the city of Sydney. A seventy-five metre high steel sculpture, *Cloud Arch,* designed by Ishigami, an artist and architect from the Harvard Graduate School of Design, "...seems languidly to lasso the sky itself" (Farrelly, 2014), and symbolizes the connectedness of the city to the wider world, to the concept of "cloud computing" and to freedom itself.

The writer Elizabeth Farrelly (2014), asks what, "in a post-industrial, post-modern, post-coherent multiculture – is public art supposed to do?" Now that we bring such diverse backgrounds and world views to understanding art, and all other types of expression, the artists' creative problem-solving efforts are possibly stretched even more tightly; they have to "delve deeper, foraging for whatever is universal in human experience and welding it somehow to the local." (Farrelly, 2014).

> "This changes the game. No longer is it sufficient for a sculptor to master material, space and composition, with a dash of symbolism. Today's artist must grapple with the psyche. Contemporary urban sculptors must enhance urban space in a way that resonates with us all, stitching our wildly diverse backgrounds into a new view of Sydney – or of life." (Farrelly, 2014: 10)

What changes the game are the innovations brought about by great creative thinkers who applied their imaginations; however, now the wider context –the sands of time and space – are possibly shifting more than ever before.

Another Sydney public artwork, which consists of suspended empty birdcages, elicits a nostalgia for what is not there, some subtle mystery through "forgotten birdsongs that float over Angel Place, as though the birds have flown without their voices" (Farrelly, 2014: 10). An unexpected feature in the heart of the city gives tourists and locals alike a reminder of the pleasure we gain from using our imagination to grasp what is not there. As Cropley (2000) has noted, in making meaning in our lives "it is the derivation from what already exists that yields surprise." Connecting the seemingly unconnected gives rise to a new way of seeing things.

These are attitudes we would want all learners to adopt: risk-taking and crossing boundaries. The same may be said of surrealist art; it shows us that we do not always have to agree, that knowledge can be uncertain. We can make our own associations and enjoy the surprise from new and unexpected links. (Sternberg, 2003b). This is intrinsically motivating for the learner (Amabile and Hennessy, 1998), hence it needs to be incorporated in day by day learning so that learners are encouraged to go well beyond the classroom door.

> "The beautiful and dangerous part of being human is that we can change and changing our minds is important." (Viola, 2014)

While interpreting surrealists' images is about grasping the juxtaposition of unexpected objects or scenes or ideas to transform what is there, Viola (1977-2014), the pioneer of video art, in a recent interview has drawn attention to the nature of transformation itself:

> "... one of the most important things in human beings' existence. Transformation is a power – a very deep and necessary power- that is constantly working under the radar screen very slowly and building a new human being." (Viola, 2014)

Like the queues outside the Musée Marmottan waiting to see Monet's ground-breaking *Soleil Levant,* people are looking for what is new and they will find what they need (Viola, 2014).- They recognize such achievements for their novelty, their rarity and their call to the imagination. We need our learners to make connections and to thirst for more, "...to discover something new that has not been thought about before" (Viola, 2014).

Productivity and practicality

> "Conventional instruction usually presents knowledge as given, when it should encourage a view of knowledge as the product of creative effort." (Perkins in Costa, 2001:295)

This paper has delineated the concept of creativity as a process which transforms knowledge into a new product or outcome that is original and valuable; this is brought about through imagination purposefully applied to solving a problem.

As stated earlier, education best serves if it is "for life not for school". Expertise is essential; however, it must be transformed through imagination into a novel response to solve a problem. This is the real drawbridge from the island of school to the mainland of living.

Synectics, a tool to encourage creative thinking and to synthesise opposites

The process known as synectics can be used to assist in shifting one's perspective and to solve problems in creative ways (Gordon and Poze, 1980; Forster, 1996; 1998).[3] To think creatively, one

> "... reflects on a problem … generates multiple original ideas that seem disconnected … thinks of one thing in terms of another …." (Ennis,1985, in Perkins 1995)

Creative thinking connects opposites that then contribute to a new understanding. Creativity and its significance can be further understood through antonyms: bright/dull, exciting/boring, colourful/drab. The clash of opposites jolts us into paying attention: the mundane, the tedious, the trivial, the everyday, the passé, - is this how we want to live, or do we want to live creatively? If all of life is about problem-solving, then an intelligent response requires our being able to think creatively, to hurdle over obstacles, to tackle problems that have no "ready-made solution".

The synectics technique gives a scaffold to encourage ideas through comparing one thing to another and exploring that analogy. It gives perspective to problem-solving by changing perspective. It has been used in the advertising, art and design worlds as well as in the classroom across different subject areas. The following example describes a teaching unit which used synectics in a high school English class. One of the students remarked that she did not know she was allowed to think like that (Forster, 2006).

Synectics Example Unit: Studying the novel, *Briar Rose,* in matriculation year:

Suggestions for teaching strategies:

- Students formed "Jigsaw" cooperative learning groups to discuss Plot, Theme, Characterisation and Context;
- Each group was given 3 questions based on Bloom's questioning; and
- The whole class made analogies using synectics (see also Weaver and Prince, 1990):

1. Start with an analogy for survivor: - A survivor is like a … - *Tall wall;* - Fight for life; - Island; - Soldier; - Developing country; - Fire; - Insect in a web; and - Animal in the wild.	2. Suggest many descriptors for one of the analogies *tall wall*: - transparent; - brittle; - mute; - see-through; - fragile; - concrete; - challenging; - strong; - fearful; - difficult; - developing country; - perspective; - never-ending; and - barrier.	3. Put together words that do not usually go together, that do not gel, a compressed conflict …like an oxymoron: - *solid difficulty;* - *never-ending island;* - *different perspective;* - *transparent barrier;* - *concrete insect in a web;* - *brittle perspective;* - *never-ending concrete;* - *brittle developing country;* - *fragile strength;* - *transparent wild animal;* - *fearful fire;* - *mute barrier.*

4. Apply this compressed conflict to the original topic. Being a survivor is about *fragile strength*…..

As a very specific tool, synectics, through the making of connections, a richness and complexity emerge in the creative outcomes of students' thinking. It allows the sort of new perspectives needed to live in a world with our own "fragile strength". Rich and complex creative ideas emerge and are applied to produce innovative outcomes.

Notes:

[1] Mais ce qui est le plus aimable en Dali ce sont ses racines et ses antennes . Racines plongées profondément sous terre où elles vont à la recherche de tout ce que l'homme a pu produire de " succulent" en quarante siècles de peinture, d'architecture et de sculpture. Antennes dirigées vers l'avenir qu'elles hument, prévoient et comprennent avec une foudroyante rapidité. Il ne sera jamais assez dit que Dali est un esprit d'une curiosité insatiable. Toutes les découvertes, toutes les inventions retentissent dans son œuvre et y apparaissent sous une forme à peine transposée (Descharnes et Néret, 2003 :8).

[2] ... ce qui anime tout grand sportif, c'est, à équidistance de la raison et de la superstition, l'instinct. L'instinct est ce subtil mélange d'analyse et de ressenti, de rigueur et d'improvisation (Bégaudeau, 2014: 2).

[3] For more information on synectics and other creative thinking strategies see:
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Jill Forster, with a Ph.D. in policy and practice in educational psychology, has extensively advised on the formulation and implementation of state government policy on gifted education and contributed to the Ministerial Advisory Committee on Quality Teaching. She has taught at the primary, secondary and tertiary levels, has coordinated a state-wide mentor program for underachieving students and provided On-line Mentoring in professional learning courses on differentiation. Her background in creativity has led her to advisory work on the General Capabilities of the Australian Curriculum.

At the University of Sydney she has worked extensively as a Research Fellow in Quality Teaching and Differentiation and as a Lecturer in the Master of Education and Bachelor of Education courses in Gifted Education that she wrote for the faculty. A joint research project with the University of Connecticut investigated the more creative and metacognitive approaches to mathematics in the primary school. Other research has included evaluation of the effectiveness of differentiation initiatives, of on-line professional learning opportunities for Languages teachers and research projects in the area of Science, Technology, Engineering and Mathematics (STEM).

Ongoing action research in schools involves her in a mentoring/coaching role for teachers who are implementing innovative teaching strategies to differentiate instruction. Creative thinking has been her focus for articles, research, a special workshop and symposium at the 2012 Australasian Conference on Gifted Education and recent keynotes at Principals' Conferences.

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An Interactive Multimedia Model for a "Big Questions" Course: Innovations in Teaching and Learning

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Abstract

This paper presents a course design model created in response to the pedagogical challenges inherent in a 'Big Questions' course in the humanities. We conceptualize the model as an Open Dynamic Educational Project (ODEP), namely, a carefully designed learning environment—physical, intellectual, and digital—which comprises *both* a collection of growing multimedia resources *and* a dynamic community of learners who contribute to this collection and to the learning process as a whole. Methodologically, an ODEP aims at the ideals of "significant learning" and "deep learning" and makes use of digital technologies—in our case a website and a computer game—in order to enhance a student-oriented course design. As we discuss the role of digital aids we also touch on the new educational trend of "gameful learning", its potentials and possible short-comings. Based on theoretical findings in conjunction with our practice of transforming a Big Questions course into an Open Dynamic Educational Project, we suggest a number of future trajectories.

***Keywords*:** Big questions; digital humanities; educational technology; open educational resource; serious games; course design models; significant learning; gameful learning; open dynamic educational project.

In the educational-cultural context, the term 'Big Questions' or 'Enduring Questions' refers to a deep, sustained exploration of a fundamental problem facing humanity. Thus, the *Big Questions Online* initiative features popular essays by leading scientists, philosophers, and writers who explore "questions of human purpose and ultimate reality" ("Big Questions Online," 2015), The Big Questions BBC series presents a wide variety of moral, ethical, and religious debates ("The Big Questions," 2015), The National Endowment for Humanities "Enduring Questions" program funds new college courses which "would encourage undergraduates and teachers to join together in a deep and sustained program of reading in order to encounter influential ideas, works, and thinkers over the centuries" ("Enduring Questions" 2015). For the purposes of this paper the terms 'Big Questions' and 'Enduring Questions' will be used interchangeably.

Questions such as "What is justice?" "What makes a life worth living?" "What is happiness?" "How can we understand suffering and death?" evoke human wisdom and experience, drawing on a multitude of intellectual, artistic, and cultural traditions. If addressed in a serious, self-reflective manner, the Big Questions also call for reevaluation of our personal values and commitments.

In this article we discuss the theoretical and practical aspects of designing and teaching a reading-intensive, interdisciplinary, cross-cultural, Big Questions course in the humanities. We identify the pedagogical challenges presented by such courses and propose a multimedia educational model as a holistic response to these challenges. The researchers set aside the discussion of institutional challenges, as some colleges/schools resist the idea of BQ and focus on very specific vocational or highly specialized training. Also, since many BQs deal with the spiritual dimension, there is secular resistance discussed by several authors ("Liberal Education," 2007). We recognize these tensions but their analysis lies beyond the scope of our project. For an insightful discussion see: https://www.aacu.org/publications-research/periodicals/forum-helping-students-engage-big-questions

In a nutshell, the model consists of transforming a course into a sustained, Open Dynamic Educational Project (ODEP) whose participants contribute to its growth and development over time. Digital technologies play an important role in this transformation: they help expand course content, stimulate deep contextual learning, and foster an intellectual community beyond the group of students currently enrolled in the course.

The model we describe here is based on personal observations and lessons learned while designing and teaching the *Meaning of Life* (MoL) course supported by the National Endowment for the Humanities. Methodologically, an ODEP aims at the concept of "significant learning" (Fink, 2013) in order to foster "deep approaches to learning" (Marton & Säljö, 1976). In what follows we discuss the ways in which the original course (and the challenges inherent to it) laid the foundation for the ODEP model and show how the introduction of the ODEP framework further enhanced the student-oriented course design as well as the overall teaching and learning experience.[1]

Project background

The project started in 2013 with the Enduring Questions grant from the NEH. The grant recipient, philosophy professor Evgenia Cherkasova designed the *Meaning of Life* (MoL) course in which students explore a variety of perspectives on life-meaning in philosophical and religious texts, in art, fiction, autobiography, and in the scholarly work of philosophers and psychologists. Course material draws on traditions of Europe, Asia, and America. Cherkasova aspired to create a space—physical, intellectual, and digital—for her students to think deeply and creatively about what makes life meaningful for them and to "witness" the quests for meaning in the lives and works of the great thinkers. With this goal in mind she explored various options for interactive online learning. As a result, a website and a computer game were developed specifically for this project. The course website,[2] initially a reference tool for students, grew into an interdisciplinary platform featuring books, film, art, and discussions of critical life questions. It serves as a dynamic record of course activities, connecting past and present generations of students. The game (in early stages of development) helps students refine their own views on the meaning of life, reflect on philosophical theories and test them against their personal value systems.[3]

Once the first horizontal prototype of the game was produced (Summer 2014), the two digital components—the website and the game—were fully integrated in the course structure. The new model—an Open Dynamic Educational Project—started to take shape. The course debuted in Spring 2014, was restructured conceptually as an ODEP over the summer, and offered again in Fall 2014.

Pedagogical challenges and associated questions

While the basic structure of the Open Dynamic Educational Project emerged from analyzing the core tenets of the MoL course, the implementation process helped reveal the common patterns and challenges inherent to the Big Questions courses in general. Here we list the key challenges identified in the process of instructional design:

[1] Some preliminary implementation results were presented at the International Center for Innovation in Education conference: "Humanities without Borders: Interactive Multimedia Educational Model in a 'Big Questions' Course," the 11th International Conference for Excellence in Education, (the Creativity-Innovation Challenge), Université Paris Descartes, Paris, France, July 7, 2014.

[2] http://meaningoflife.cherkasova.org/

[3] The game project was sponsored by the Suffolk Center for Teaching and Scholarly Excellence. The design/ testing team consists of Cherkasova (philosophy), professor Dmitry Zinoviev (mathematics and computer science), Marie Marbaek-Johanson (digital humanities consultant), and Nicholas Raby (graduate research assistant).

Vastness of material: By definition, the Big Questions are some of the oldest and most perplexing questions posed by humanity. The relevant themes and perspectives can easily supply material for dozens of different courses. How do we organize a single-semester course whose subject matter has no distinct disciplinary or chronological parameters? Which structure and/or progression could best orient the audience?

Diversity of content: A Big Questions course often comprises diverse disciplines, traditions, and historical periods. In this context, how do we avoid a superficial survey approach and do justice to the depth and complexity of ideas? Is it possible to preserve diversity while maintaining a focused classroom conversation? Will the students have a chance to immerse themselves in the material? And throughout the course, will there be opportunities to revisit and apply what they will have studied?

Personal, introspective dimension: One of the reasons why the Big Questions persisted throughout ages and cultures is that they cut to the core of human nature and the human condition. They inquire about the fundamentals of our existence—mortality, subjectivity, free will, happiness, suffering, etc. On an existential level, each person and each generation confront these questions anew. Consequently, the Big Questions courses often deal with sensitive issues which may resonate very strongly with students (e.g. death, loss of meaning, suicide). How do we approach difficult, emotionally charged topics in a classroom? Which activities and assignments could foster students' introspection and self-reflective, caring attitude?

Students' attitudes and study habits: Students' prior training and study habits may hinder their involvement in a particular course. Some students tend to study only what they think they will be tested on (Lonka, Olkinuora, & Mäkinen, 2004; Marton and Säljö, 1976); they may also see course work as something to be done exclusively in order to "get a specific requirement out of the way." The phenomenon is as common as it is regrettable. Based on personal observations and contemporary research (discussed below) there are reasons to suggest that, in a Big Questions course specifically, such tendencies go directly against the spirit of the course. Can we overcome the students' inertia and help them discover the pleasures of self-directed inquiry?

We want to note that none of the challenges described above belongs exclusively to a Big Questions course. For example, the vastness of material is one of the prominent features of a traditional subject area survey course. As such, any successful interdisciplinary course has to address the diversity challenge and therefore questions about basic epistemological stances and employed methodologies (Stein, Connell, & Gardner, 2008).

In addition, many courses in the humanities and social sciences in general deal with sensitive, controversial, and potentially disturbing topics, thereby touching on the Big Questions indirectly. Finally, the issue of student attitudes and study habits is universally present in all educational contexts. Therefore, it is not a particular challenge on its own but their concentration in a *single course* that produces the unique atmosphere of conflicting demands in a Big Questions course. Research on models of student learning and strategies provides some guidance on how to meet these demands through course-design.

Tracing the history of Student Approaches to Learning (SAL), Lonka, Olkinuora, & Mäkinen (2004) cite Marton and Säljö (1976) as having introduced two qualitatively different approaches: deep and surface level learning, of which the former "refers to paying attention to the meaning and significance of the materials to be learned, whereas the latter concentrates more on rote memorizing" (p. 302). Given the vastness and diversity of material, the students in a Big Questions course may be tempted to resort to "surface learning." In addition, in their analysis of the ways students organize their studying Lonka *et al.* note "the *achieving* (*or strategic*) approach" which aims exclusively at high grades (2004, p. 303). Research suggests that a "strategic" approach *may be* the proper formula

for some educational contexts.[4] However, the "strategic" and "surface" approaches are insufficient at best and counterproductive at worst in Big Questions courses where achievement refers, among other things, to students' conceptual change on personal and existential levels. If human dimension and caring are among the kinds of learning we want to promote (as in Fink's taxonomy of "Significant Learning" discussed below) and a "deep" approach to learning is one of the long-term objectives, it makes sense to adopt a student-centered framework which responds directly to the learners' attitudes and study habits with an informed pedagogical model (Fink, 2013; Pintrich, 2004).[5] As the ancient Greek philosopher Protagoras saw it, "education is not implanted in the soul unless one reaches a greater depth" (450/2005, p. 81).

We believe that the current structure of the *Meaning of Life* course as an Open Dynamic Educational Project provides a helpful paradigm for addressing these and other related challenges and can be applied to a variety of courses similar to MoL in nature and scope. The next section summarizes MoL pedagogical strategies and preliminary results which led to the development of ODEP. In the consequent sections we provide a working definition of ODEP, describe its key features in connection to Fink's model of Significant Learning, and sketch out future implementation trajectories.

Responding to challenges: *The meaning of life* course before and after ODEP

Given the subject's breadth and diversity, the *Meaning of Life* course combines intellectual history with in-depth examinations of key texts. The readings cover a broad range of perspectives from the Old Testament's *Ecclesiastes* to the ancient Chinese classic *Tao Te Ching* to the twentieth-century existentialist writings and beyond. The students are encouraged to see a search for meaning as an exciting intellectual endeavor and an existential challenge of great practical importance. For this reason, the material is organized thematically, around three interrelated units: 1) *A Life Worth Living: Humanity's Ideals* focuses on the ancient and modern visions of harmonious existence and human flourishing; 2) *Threats to Meaning: Humanity's Discontents* discusses the disillusionments leading to a loss of meaning and purpose; and 3) *Recovery of Meaning: Crises and Hopes* explores the possibilities of self-discovery and growth as a result of a major crisis.

To enable students' introspection and immersion in the material, course assignments and projects combine elements of close reading, conceptual analysis, and continuous reflective activities/exercises. All projects are meant to be shared, revised, and polished throughout the semester, a practice which we intend to steer students away from surface learning and "quick fixes." The best student work is published online, creating a record of class results and best practices. During the first run of the course in the Spring of 2014 the assignments included:

- *Meaning of Life Profile*

[4] Thus, discipline genre (e.g., STEM or humanities) has been shown to significantly influence approaches to teaching and learning. Lueddeke (2003) studied how the particular discipline (categorized according to "hard" versus "soft" sciences) impacts the instructors' approach—either toward a conceptual change/student focus (CCSF) or an information transmission/teacher focus (ITTF)—and found that "soft science" faculty show a stronger conceptual change/student focus than their "hard science" counterparts (p. 220-221). In a 2006 study Lindblom-Ylänne, Trigwell, Nevgi, & Ashwin, using similar methodology and discipline criterion, also found that "the teachers from hard sciences scored significantly higher on the ITTF approach scale than the teachers from soft sciences" and "the means of the ITTF and CCSF approach scales differed significantly across the disciplinary groups." (p. 291-292)

[5] For example, Pintrich (2004), commenting on similarities with SAL, champions a 'self-regulated learning perspective' (SRL) which is sensitive to "not just individuals' cultural, demographic, or personality characteristics that influence achievement and learning directly, nor just the contextual characteristics of the classroom environment that shape achievement, but the individuals' self-regulation of their cognition, motivation, and behavior that mediate the relations between the person, context, and eventual achievement." (p. 388)

At the beginning, students answer a few questions about their personal values, goals, and ideals. Throughout the course they revisit their initial answers, identifying the texts which affirm, challenge, or completely refute their ideas about life's meaning and purpose. At the end of the course, students submit revised, expanded profiles containing an analysis of any change of perspective which may have occurred as a result of course work.

- *Collection of Questions and Quotes*
  In this reading intensive exercise which runs through the whole course students are asked to record their impressions of the texts by collecting and commenting on memorable passages. A quote may be chosen because it rings true or sounds completely absurd; because it is deeply moving or highly controversial, pessimistic or uplifting, illuminating or obscure. The assignment combines a personal dimension (students choose quotes which "speak" to them) and a skill-building dimension (students learn to articulate why a particular quote caught their attention while practicing critical reading and proper source documentation).
- *Reflection Papers*
  A reflection paper is a thoughtful, engaged, well-written exploration of a key idea of the course. It prompts students to work toward mastery of the material by exploring its depth and complexity from textual, historical, and personal perspectives. Students may also make connections to contemporary issues, course work in other classes, and share personal observations.
- *Crisis of Meaning Interview*
  Students interview a friend, colleague, or family member who is willing to share his/ her story of crisis and recovery. A crisis of meaning is a turning point in someone's life characterized by a loss of purpose, rejection of values once taken for granted, or the shattering of a familiar self-image. An interview must include both a crisis event and a narrative of recovery, e.g reconciliation, personal growth, deepened self-awareness, etc. Completing this assignment requires theoretical grounding in the issues related to the loss of meaning and the interviewer's ability to handle the intimate, interpersonal nuances of such issues in a conversation—not to mention basic interviewing and communication skills. For this reason, students go through a number of preparatory exercises before they begin work on an interview itself.

Some course projects encourage students' active involvement with historical and intellectual traditions and texts (*Reflection Papers*, *Collections of Questions and Quotes*). Others focus primarily on personal values, goals, and experiences, suggesting connections between class discussions and life problems students face (*Profiles*, *Crisis of Meaning Interviews*). At the same time, each project is intentionally multidimensional, combining theory and practice, cultivation of skills and introspection. The epigraph for the course, which comes from the Roman philosopher Seneca, captures its main goal: *Vitae, non scholae discimus* – "It is for life, not for school, that we learn." Each classroom activity and assignment is designed to reveal this vital connection between life and learning.

The activities listed above were a part of the MoL course before it was transformed into an Open Dynamic Educational Project. Two digital components were instrumental in creating an ODEP version of the course—the enhanced MoL website and a philosophical computer game. Within the new framework, the website became a digital hub for course projects, a space to record and display student work showcasing the most successful projects and increasing publicity. Through ODEP, the quality of student writing and intellectual insight is assessed on two levels: 1) whether a paper/ project meets the general standards for college work (applied in both pre- and post ODEP contexts) and 2) whether a paper/ project merits potential publication on the MoL website. Publications set the higher standards of quality, encourage connections among different generations of students, publicize the course content and invite independent feedback from colleagues, students, and public at large. Most importantly, publications motivate: all students whose work was chosen to be featured on the website saw it as an honor and continued to work on revisions long after the course was over and the final grades were in. Publicity played an important institutional role as well: for example, during

orientation sessions over the summer, some prospective students cited the website as a key resource in their course choice.

Perspectives on Gameful Learning: Implications for the MoL game

The second component of the MoL ODEP—a newly developed computer game—merits special mention. Simulations and games have been part of a large socio-historical shift from an "information transfer" to an "experience-based" educational model since the 1970s (Ruben, 1999). One notable difference that has occurred over this span of time is that with advances in technology the *reality* of experience-based learning (e.g., service learning, case study, support groups) has become in some cases a *virtual reality* of various degrees of likeness with the original. Now in the 21st century computer and video games serve a variety of purposes: from leisurely diversion, to training surgeons, military personnel, pilots and other professionals. The U.S. Department of Education has even created an office of educational technology in order to "provide leadership for transforming education through the power of technology" ("Office of educational technology," 2015).

Recently, the issue of the educational potential of game technologies has received widespread attention. Some researchers have found that (video/computer) games increase student motivation and achievement of learning goals (Divjak & Tomić, 2011; Erhel & Jamet, 2013; Felicia, 2011; Tüzün, Yilmaz-Soylu, Karakus, Inal, & Kizilkaya, 2008), thereby championing integration of games into the education system at large. At the turn of the millennium, there was a spike in publications about videogame technologies and their potential place in education. One rather popular account came from Prensky (2001a) who coined the terms "digital natives" and "digital immigrants," advocating for a radical change in educational strategies based on the alleged "digital" generational differences (Prensky, 2001b, p. 1). For the better part of a decade Prensky's assumptions and methods went without critical examination while many authors employed his terminology to discuss gaming technology and education. In 2008, Bennett, Maton and Kervin labeled the majority of this discussion "an academic form of moral panic" (p. 785) that had allowed "unevidenced claims to proliferate" (p. 786). They called for "a considered and disinterested examination of the assumptions underpinning claims about digital natives such that researchable issues can be identified and dispassionately investigated" (p. 787). The debate is ongoing.[6]

On the one hand, as we noted earlier, there are studies that show educational games to have significant positive impacts on learning outcomes and motivation as experimental constructs. On the other, we are suspicious of the unfounded enthusiasm about the prospects of the wholesale "gamification" of education.[7] The question we kept in mind while developing the MoL game was: what kinds of games do we play and therefore which practices do we rehearse and perfect? In this sense, it was our intention to create a *serious game*, one that is "designed to entertain and educate players and to promote behavioral change" (Blumberg, Almonte, Anthony, & Hashimoto, 2013, p. 334). Gallagher and Pretwich (2012) also note that "games and serious games support both generational differences and a varied, ubiquitous set of technological opportunities that can be leveraged for learning." (p. 2)

[6] Thus, one study suggests that belonging to a certain generation (age-group) does not have a significant effect on 'digital nativeness' (Helsper, & Eynon, 2010). Supported by such findings and following the same critical argument, Koutropoulus (2011) argues that "these figures and overgeneralizations have oft been repeated by followers of the digital native message, without much self-reflection or critique" (p. 526), referring to it as a "fetish of insisting in naming this generation the Digital/Net/Google Generation" (p. 523).

[7] Overall, we side with Young *et al.* (2012) who propose that researchers ask precisely how "a particular video game being used by a particular student in the context of a particular course curriculum affect the learning process as well as the products of school (such as test grades, course selection, retention, and interest)" (p. 84). See also Selwyn's (2012) ten conditions for improving academic research and writing on education and technology.

Broadly, these two perspectives describe how we intended the Meaning of Life game to function in the classroom: students would be encouraged to apply philosophical insight to the decision-making process in a series of constructed game situations while reviewing course material on the way. We expected this approach to be effective in presenting vast intellectual material in an accessible form as well as reinforcing the learning process through repetitive strategic choices. The implementation of the game met our expectations.[8] In our game called *Vixi: A Master's Way* ("vixi" in Latin means "I have lived") the player functions as an active learner, choice-maker, and "traveler" in the history of ideas. *Vixi* features diverse paths to meaning represented by eight "philosophical schools": the Classical Greeks, the Epicureans, the Stoics, the Taoists, the Existentialists, the Pessimists, the Humanists, and the Buddhists. The game generates various scenarios/situations to which the player has to respond. Throughout the game the "Great Masters" from different schools offer their "advice" or "warnings" in the form of direct quotations. Each of the player's strategic choices is assessed by all the schools and the player's affinities with different philosophical perspectives gradually emerge. At the end of the game the player receives a "post-mortem" analysis of his or her virtual life choices.

It is important to note that MoL students' engagement with the game is not limited to playing it. We created a game whose database and structure is open to revisions by the players themselves. While working their way through the game, each class of students/players is asked to participate in game design through mini-assignments suggesting new strategies, clarifications, improvements, and content additions. As game-designers, students must familiarize themselves with the particular principles of game play in order to generate interesting challenges for the player, a conceptual activity which has been shown to positively impact motivation and deep learning strategies (Vos, van der Meijden, & Denessen, 2011).

To further motivate students, we offer the chance for the most intriguing and well-ordered situations to be included in the future version of the game. Working from a dual perspective of the player and the designer, students have a unique opportunity to experience and reflect on key ideas of the course and their applications. As we expected, most participants picked up on the benefits of this "dual-role" and reportedly spent more time on related course work.[9]

By integrating gameful learning, game design and website activities into the MoL structure we were able to create multiple conceptual links among textual resources, learning activities, and course participants; to cite just one example, game development prompts students to practice and perfect textual analysis skills in a larger context when they select passages to be included in the game as the "Master's advice," or when they construct challenging existential situations and connect philosophical principles to practical life choices.

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[8] In order to gauge educational effectiveness and student experience with the MoLgame for our personal records, we created a series of surveys to investigate our initial hypotheses. Here are some of the responses. When asked what the best point about the MoLg was student [K] wrote: "it puts into practice the theory of every school so that you see examples and are able to get a better understanding of every reading." When asked for an "*overall initial reaction*," student [G] wrote "I think this game would be extremely helpful and being able to compare/contrast different schools of philosophy. I'm excited to see where is goes ☺" while student [K] noted that introducing the game is a "very good idea. Makes philosophically heavy subjects easier to grasp".

[9] Here are some characteristic responses from the second round of MoL surveys addressing a updated version of the game and corresponding assignment: when asked whether *the game assignment should continue to be a part of course,* 100% of students answered "yes". To the question "*Did you think* both *playing the game and designing parts of the game are more helpful than doing either one or the other? Please explain*" student [D] answered: "Yes because playing the game gives you an idea of what you're working toward and designing the game helps you reflect on and apply course material" and student [L] answered "Yes, playing the game gives you a sense of how to design your own parts. Designing parts helps you remember course work". When asked "*What were, if any, the positive aspects of the assignment?*" student [D] responded that "engaging in the game helps us understand the material and see its importance".

To sum up, the three MoL components—the course, the website, and the game—have been evolving together to form what we call an Open Dynamic Educational Project. Their interrelatedness can be represented by a simple diagram (**Figure 1.** Three ODEP Components, Interrelated and Mutually Reinforcing):

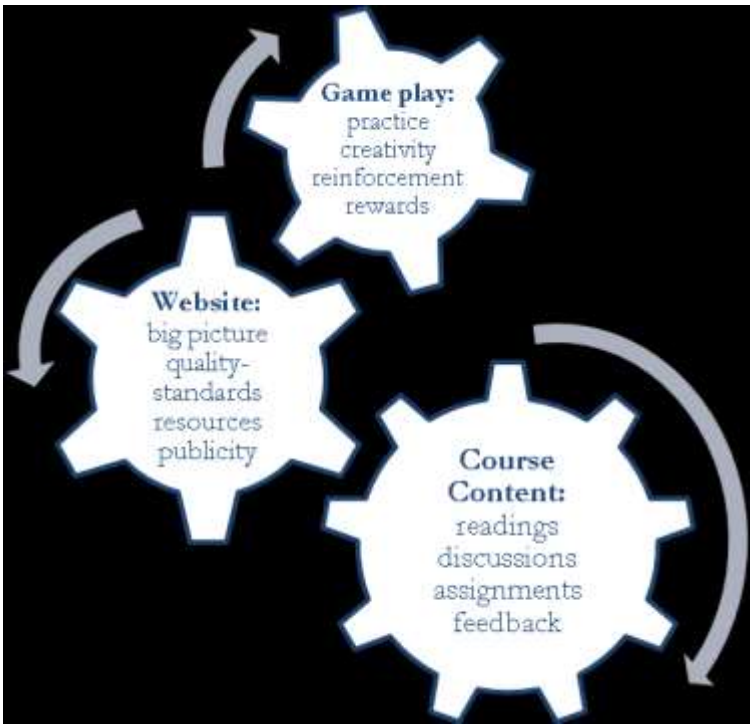

Figure 1: Three ODEP Components, Interrelated and Mutually Reinforcing.

The ODEP model: A definition

An Open Dynamic Educational Project is a learning space—physical, intellectual, and digital—which comprises *both* a collection of multimedia resources developing over time *and* a dynamic community of learners who are also contributors to this collection and to the learning process as a whole. As a touchstone for our model, we reference UNESCO's concept of an "Open Educational Resource" (OER). In 2011, the organization published a set of guidelines in which OERs are defined as "materials used to support education that may be freely accessed, reused, modified, and shared" (UNESCO, 2011, p.1). The basic framework of an ODEP aligns with the spirit of UNESCO's vision of universal accessibility. At the same time, our model calls for some qualitative modifications:

- *Open:*
  The first term, "open," is augmented. For UNESCO, open *access* to educational materials is the main concern. For us, the term also implies an invitation to contribute. We believe that openness is more than access to and distribution of materials, it is also a welcoming environment, open to participation, inventiveness, creative adaptation, and cultivation of talent.

- *Dynamic:*
  We add the term "dynamic" to capture the idea that learners are participants as well as designers. Through their active involvement and contributions all components of the project evolve and improve *over time*. Most importantly, dynamism also refers to the participants' development and personal growth.

- *Project*:
  Since the learning process is irreducible to a collection of objects and/or resources we introduce a rather broad term, "project," to connote a communal, interactive, cross-generational set of activities. Thus, an educational project combines interrelated components, digital or otherwise, constantly evolving and future-oriented. Innovation is a project's driving force while collaboration is its cohesive activity.

Though there is conceptual overlap between ODEP and 1) the concept and intention of Open Educational Resources (OERs) and 2) the concept and intentions of Massive Open Online Courses (MOOCs), a rough-and-ready distinction between ODEP and these other models is that the latter emphasize "availability" above all whereas our framework highlights genuine interaction, grounded coherency, and shared history.

MOOC proponents argue that a well-designed MOOC can offer much more than just a free online instruction. A recent blog post paints an impressive picture:

> a MOOC is an evolving and dynamic learning and collaboration ecosystem that may encompass more than one technical platform and various modes of learning from short, byte-sized videos and e-learning capsules to user-generated content… MOOCs are well-suited for open-ended topics that generate discussions and debates, have new knowledge and research growing around it, and are of interest to a wide audience…A MOOCs core aspects are participation and emergence. The characteristics and context of a MOOC (*when effectively facilitated and thoughtfully designed*) evolve as it progresses. The initial topic becomes the trigger around which communities and cohorts form, discussions take place, resources get created and shared (Chattopadyhyay, 2015)

Our reader will note that the description above utilizes some of the same concepts and terminology central to an ODEP definition.[10] Yet an ODEP (at its best) has a particular advantage over a MOOC (at its best): it effectively connects open education with "closed" institutional setting, utilizing their respective strengths. [11] In the next section we discuss the specifics of this crucial connection.

ODEP and significant learning

As a holistic pedagogy, an ODEP contributes to what educational theorist L. Dee Fink calls "Significant Learning" (Fink, 2013; Fink, n.d.a; Fink, n.d.b). With a revamped taxonomy based on Bloom and colleagues' original work from the mid-20th century, Fink advances a perspective on teaching and course design grounded in six interdependent kinds of learning: Foundational Knowledge, Application, Integration, Human Dimension, Caring, and Learning How to Learn.[12] Fink broadly conceives of learning in terms of change. He states: "[f]or learning to occur, there has to be some kind of change in the learner… And significant learning requires that there be some kind of *lasting* change that is *important* in terms of the learner's life" (Fink, n.d.a, p. 3). This approach clearly resonates with the dynamic character of an ODEP and with the idea of *learning for life*, an outlook which inspired the development of the ODEP framework.

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[10] For example, Morris and Stommel (2013) respond to the critics who claim that MOOCs are not sufficiently interactive: "interaction is not only possible within a MOOC; it also has the potential to be extremely dynamic… MOOCs are anthropological opportunities, not instructional ones" (para. 3, 4).

[11] Ulf-Daniel Ehlers, president of the European Foundation for Quality in e-learning, convincingly argues that making such a connection in a meaningful way is one of the major challenges contemporary educators face. ("The Big Challenge," video interview, 2013, [7:40-8:18])

[12] Fink's pedagogical framework has been successfully put into practice in diverse content areas, including humanities ("Designing Significant Learning Experiences," 2014; Fallahi, 2011; Rose & Torosyan, 2009; Zhang, 2012). Educators report uniformly positive results.

We believe that Fink's overall methodology is a useful parallel to our model because a well-designed Open Dynamic Educational Project has the capacity to engage all aspects of significant learning. Thus, in the emerging MoL educational project, "Foundational Knowledge" category (understanding and remembering information and ideas) is addressed throughout: MoL students study primary texts in the history of Eastern and Western philosophy, learn basic terminology, and explore conceptual links between different disciplines, such as philosophy, literature, psychology, history, and art. Class discussions, website resources, and the game, each in its own way, provide support for the intellectual foundations of the course and evoke two other categories of Significant Learning: 2) Integration (connecting ideas, people, realms of life) and 3) Application (skills; critical, creative, and practical thinking). Specifically, the game makes explicit the real-life applications of theory by offering diverse scenarios/situations in which the player encounters first the general principle of action and then chooses among courses of actions corresponding to this principle. Both "Application" and "Integration" are further enhanced by *Crisis of Meaning Interviews* and *Reflection Papers*. The engagement goes beyond coursework when students learn about their friends and family members, connect to other students who took the course before or contribute to website resources. Meaningful connections with other departments and colleagues are possible as well; among the links formed through MoL activities are those of philosophy and computer science (game structure), journalism (interviews) and creative writing (introspective narratives, story-telling aspects of the game).

Further, it would not be an exaggeration to say that all MoL activities are designed to evoke the learning categories of "Caring" (developing new feelings, interests, values) and "Human Dimension" (learning about oneself, others). To cite just one example, many students while analysing the interviews they conducted noted the revelatory moments such as "this interview helped me better understand my sister and other people who suffer from depression" or "I knew that my mother did not graduate from high school but I had no idea how deeply she regrets the lost opportunities."[13] The MoL ODEP also responds in a number of ways to the "Learning How to Learn" category (becoming a better student, a self-directed learner, inquiring about a subject). For instance, students who choose to revise their work throughout the semester learn to incorporate constructive critique, anticipate objections, and build on their existing strengths as writers and thinkers. As we have mentioned earlier, through ODEP, there is an opportunity for willing, caring students to revise their work for the website or the game. Students thus learn to recognize the difference between a good paper in a course and a publishable paper. This lengthy yet fruitful process maintains students' interest and provides a structure for acquiring self-directed learning skills.

While there are many more parallels between MoL ODEP activities and SL categories, their detailed exposition lies beyond the scope of this paper. Concluding our discussion of Fink's taxonomy we suggest that with the proper application of the ODEP framework, the idea of "integrated course design," central to Fink's system, would take on a new dimension. Take, for example, the two digital components of the *Meaning of Life* project—the website and the game. They are not just auxiliary tools or fancy supplements. Both are designed and maintained as vehicles of a comprehensive, "active" learning experience. Intertwined with course activities and assignments, they serve many purposes: from stimulating interest to fostering students' sense of agency.

Meaning of life ODEP: Future trajectories

Seminars for Freshmen. The pilot version of the course in Spring 2014 was a 200-level general humanities course. In Fall 2014 the *Meaning of Life* was offered as a Seminar for Freshmen and will likely continue in this format in the future. Certain freshman-specific challenges are to be expected: students' level of academic preparedness, emotional maturity, lack of experience with

[13] For the purposes of this paper, students' testimonies are slightly modified aiming at the overall picture. The actual interviews with students' post-interview reflections can be found at : http://meaningoflife.cherkasova.org/course-materials/student-work/crisis-of-meaning-interview/

college life and its daily demands, etc. Yet there are also unique opportunities: at Suffolk University, Seminars for Freshmen are especially well-suited for building an intellectual community because the instructor serves as a guide to college life in general as well as an academic advisor for all students enrolled in the course.

Through ODEP activities, freshmen meet and cooperate with other students and alumni who share their interests (website editors, game designers, research and teaching assistants). In advising sessions, supported by the website resources, students learn about specialized areas of study they may wish to explore in the future. Finally, those freshmen who choose to stay in touch and/or contribute to the project after the course is over are likely to create meaningful generational ties with incoming students, upper-classmen, and alumni. They are also prime candidates for participation in a longitudinal study of ODEP effectiveness, if such a study were to be conducted.

The Website. We will continue to feature student work and integrate it with class discussions, activities, and assignments. We plan to explore opportunities for collaboration with colleagues in other disciplines who address MoL themes in their classes and/or in their practice. For example, the idea of the *Crisis of Meaning Interview* can be expanded to include conversations with professionals who assist people in existential crises—psychotherapists, social workers, philosophical counsellors and others.

The website team will invite original publications and solicit feedback from readers. As in the past, we will offer interested students and alumni the opportunity to volunteer as website editors, moderators and web designers, depending on their skills and expertise. While we will continue to rely on volunteers we also plan to apply for external funding to support project related activities.

The Game. All aspects of the game, including its conceptual and visual structure, will continue to be open to revisions by project participants. At the present time, *Vixi:A Master's Way* functions as a simple click-to-go interface with regular content updates. Speculating from an empirical finding that "technological advancement increased participants' sense of presence, involvement, and physiological and self-reported arousal" (Ivory & Kalyanaraman 2007, p. 532), we assume that a more technologically advanced version of *Vixi* will show increases in educational benefit.

There may be a chance to test this hypothesis if we succeed in securing additional funding for future game development. Currently the project depends fully on the enthusiastic work of volunteers. We have begun to explore possibilities for partnership with professional designers and game developers interested in serious games.

We are excited to share some preliminary results of the ODEP framework and implementation with educators and educational theorists. We are also very interested in a further discussion of the theoretical aspects of the Open Dynamic Educational Project, its definition and potential applications. In this article we focused exclusively on an ODEP as it applies to the humanities in general and to the *Big Questions* courses in particular. If the model described here proves to be beneficial to some courses in the humanities, as we believe it will, perhaps in the future it can also be adapted to other educational contexts.

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"Teachable Culture Moments" in English as Second Language (ESL) Classes

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Abstract

Issues accruing to language and culture interlock when explored as first, second, or even third language learning instruction continue. Hence, this paper explores how evident culture instruction is in the English as a Second Language (ESL) classrooms in the Philippines. This paper primarily aims to answer the question *"Is culture taught in English language classes? If yes, what cultural information/knowledge is taught?"* In other words, it focuses on finding out whether national and other cultures are infused in the English language lessons, whether teachers make comments on how language relates to culture, or make statements/perspectives on culture. The rationale behind doing this is quite plain, to find out if language teachers are also culture teachers who assist the learners in developing a better understanding of their own or other's culture defined as: "… the ideas, customs, skills, arts, tools which characterize a given group of people in a given period of time." (Brown, 2007, p.122). The results seem to agree with the assumptions that there are indeed 'teachable culture moments' in the English language classroom. Thus, culture must be fully incorporated as a vital component of language learning. Second language teachers, however, should identify key cultural items in every aspect of the language that they teach.

***Keywords*:** Language learning; culture; intercultural communication; non-verbal communication.

Introduction

A good number of books and research on the inseparability of language and culture have been published across the globe. Issues accruing to culture (the totality of a people's learned behaviour and a people's collective traditions, value and belief systems, and social norms) and language (a potent vehicle for cultural transmission), interlock when explored as first, second, or even third language learning instruction continue particularly within the four walls of the English as a Second Language (ESL) classrooms. Thus, Byram (1999) writes that at present, the aims of language teaching is not only to develop linguistic competence but inter-cultural competence as well. Hong (2008) adds that acquiring cultural knowledge of a target language is often called the "fifth skill in language learning" since cultural factors are deeply interwoven with the language, and thus are reflected in the forms of the language morphologically and structurally. Krasner (1999) believes that linguists and anthropologists have long surmised that the forms and uses of a given language mirror the cultural values of the society in which the language is used and thus, linguistic competence alone is insufficient for learners of a language to be competent in that language.

The aforementioned therefore challenges ESL, even English as a Foreign Language (EFL) educators, to assume multiple roles in the classroom. Now, they must not look at themselves as mere teachers of a language. For Damen (1987), the modern language educators in the learner-centred instruction, in the case of culture learning, take the professional titles of cultural counsellors, participant observers, pragmatic ethnographers, and, more importantly, cultural mediators since language learning is more than the manipulation of syntax and lexicon; language learning is also culture learning. Omaggio (1993) further compounds the language instructors' duties by saying that "a teacher's role is not to impart facts about the target culture, but to help students obtain the skills to understand the facts that they will discover for themselves in studying the target culture" (p. 358). Teaching culture, therefore, is an integral component of the language teachers' pedagogical responsibility (Byram, Gribkova & Starkey, 2002). Teachers, language teachers in particular, should

be equipped with the ability to appreciate, understand, and integrate perspectives from various cultures into their own cultural understandings and dispositions. They should cultivate an affirmative attitude towards understanding and appreciating cultural diversity and variation that eventually stimulates a fitting and an effective behaviour in intercultural communication.

The challenge posed above is the same challenge that prompted this paper to investigate how evident culture instruction is in the English language classrooms in the Philippines. This study primarily aimed to answer the question "Is culture taught in English language classes? If yes, what cultural information/knowledge is taught?" Put in another way, it focuses on finding out whether local and other cultures are taught in the English language classrooms, whether teachers make comments on how language relates to culture, or make statements/perspectives on culture. The rationale behind doing this is quite plain, to find out if language teachers are also culture teachers who assist the learners in developing a better understanding of their own or other's identity and culture.

As stated earlier, it is generally agreed that language and culture are intimately correlated. It must be noted, however, that this paper considers language as a verbal manifestation of culture used to preserve and mirror culture and cultural ties. It views language as a communication vehicle that provides both men and women with many of the categories they use for expression of their thoughts, so it is therefore natural to assume that their thinking is influenced by the language they use. Further, this study does not look at culture in its broadest sense. It considers a narrower and more specific view of culture than its most ordinary definition, "a way of life". It views culture as an element or entity hiding or residing in a language. This study takes the stance that when teachers teach a language, they convey a cultural message that is reflective of their own individual and perhaps, collective identity, perceptions, beliefs, habits, and vicarious experiences and thus they should be cognizant of their own biases against and misconceptions about other cultures. They should be equipped with the right amount of intercultural competence to become effective and skilled.

This qualitative paper employed classroom observations as its principal data-gathering procedure. Ten high school and college English classes were observed and recorded with the aim of spotting 'teachable culture moments' in the language classrooms. These 'teachable classroom moments' are defined as specific instances within the instructional period where culture is overtly and/or implicitly taught by the English teachers. The writer sought the permission of the concerned officials to allow him to tape record and closely observe the 60-75 minute classes guided by the very objective of the present investigation. The English teachers were informed about the purpose of this investigation and assured that confidentiality would be strictly observed.

In the presentation of results, a brief recount of the lesson and the flow of the day's discussion is provided. Relevant statements from the teachers and the students were quoted verbatim. Every narrative of the lesson is labelled "Cultural Episode" that highlights the 'teachable culture moments'. A discrete analysis is also given at the end of each cultural episode. The analysis simply states how culture teaching is embedded or reflected at some point in the instructional period. It other words, it centres on the specific section of the lesson where the writer perceives there is overt and/or implicit teaching of culture.

The cultural Episodes

The following presents seven Cultural Episodes purposively chosen by the researcher for analysis.

Cultural Episode #1

The lesson focused on using and understanding English idiomatic expressions. The teacher began the lesson by hanging jumbled words on the board and asking the students to arbitrarily form phrases which they feel do make sense when used in a complete sentence or utterance. Examples of these words include: *dozen, eye, of, the, wearing, crocodile, long, face, apple, tears, a, baker's.* He anticipated answers like 'apple of the eye', 'wearing a long face', 'crocodile tears' and 'baker's dozen'. The students who were asked to give answers were able to give the correct ones.

The students were asked what these phrases would possibly mean when used in specific contexts.

Using this task as his lesson springboard, the teacher introduced the concept of English idioms and how they make the language (borrowing the teacher's words) 'crispier' and more creative. He then flashed this sentence for analysis: "*Most men must have been around before getting married.*" He asked the class to identify the idiom used in the sentence and to guess its meaning. He provided four options to choose from: (A) have much worldly experience; (B) showed someone around; (C) have been in various directions; and (D) take a circuitous course.

A majority of the class picked option (A), which, of course, is the correct answer. Very few chose (D) and no one chose (C) and (B). The teacher asked three volunteer students to explain why they chose (A) as their answers. The students' responses caused the 'clash of opinions' among the students, the debate in the class, and 'intriguing sensation'. Those who answered (A) argued that *'have been around'* means 'having much worldly experience', however, describing or defining the term 'worldly' as 'promiscuous', 'immoral' and 'fond of sex'. They surmised that young single men, before getting married are easily lured by worldly and intense desires for flesh and sexual activities. On the other hand, those who believed that the appropriate answer is (D) asserted that 'have been around' simply means 'not very serious with life', 'happy-go-lucky', and 'loves to explore'. The teacher tried to end the argument by saying, with firm conviction, that the correct answer is (A). He emphasized though that the class misconstrued the term. He said, "It is unfair to judge men as 'promiscuous', 'fond of sex', and 'immoral'." He also stated that the term 'worldly' means 'experienced', 'sophisticated', and 'mature'.

An analysis of Cultural Episode #1 would lead one to question (1) the manner by which the students regard men nowadays, (2) how the sentence used the idiom, and (3) the English teacher's manner of correcting the students' misperceptions. This episode clearly shows how evident or prevalent the culture of stereotyping men is. It is quite striking to know that present-day students relate younger men to the idea of promiscuity and sexual aggressiveness. It is also puzzling to know that 'worldly' takes a limited definition in the students' minds. Perhaps, it would have been better if the contextual clues provided in the sentence were changed. The last part 'getting married' probably led the students to deduce that men by nature are too adventurous when it comes to sex and intimate relationships before they decide to finally settle down.

The aforementioned episode shows that there are many ESL classrooms and cultural-sensitivity issues that teachers must address to ensure they are delivering language instruction without prejudice, discrimination, or bias. Tupas (2010) believes that "[s]mall (really minimal) insertions or interruptions in our lessons and activities could help our students appreciate diversity more critically and challenge their deep-seated beliefs about themselves and others" (p. 9).

Cultural Episode #2

In a college reading class, the language teacher concentrated on two important skills: using graphic organizers or thinking maps and comparing and contrasting. The lesson started with an audio-visual presentation (AVP) on Filipinos' ungrammatical sentences used in road signs and found in different sorts of establishments. After viewing the AVP the teacher raised the questions "What reality does the AVP show?" "Do you believe that the English proficiency of Filipinos is now on a continuous decline?" A number of students raised their hands and responded to the questions. The teacher then distributed two short news articles clipped from broadsheets, one about the declining English proficiency of Filipinos and the other one about the improving language skills of Filipinos, and asked the students to read them silently. Without asking questions, he distributed copies of a compare and contrast thinking map or graphic organizer for the students to fill out in dyads. After a few minutes, a discussion on the text purpose, text structure, and authors' findings followed. The teacher then assigned seven students to take the roles of *college English professor, education secretary, employer, ordinary employee, college student, host,* and *EFL learner*, in a simulated talk show. A Korean student was purposively chosen to assume the role of the EFL learner.

The rest of the students served as audience who would ask questions to the guests required to respond in the light of the two news articles. There was a very interesting discussion and exchange of ideas. The most controversial remark, however, was that of the Korean student who said *"Koreans have poor English but very rich economy. Filipinos speak English very well but they are very lazy. Manila is like Korea 50 years ago."* Countless students reacted violently and an uproar was heard. The Korean's face turned red and said "That's just my opinion, guys." The teacher interrupted and asked the Korean what he meant by 'lazy'. The Korean student explained his side and cited specific observations and instances in which to him prove that Filipinos are lazy. The teacher remarked, "Please do not make an overgeneralization or a sweeping statement." He further said, "I respect your view. But please put 'some' before the word Filipinos." The teacher surmised that the issue was resolved and the class ended when the sound of the bell was heard.

Cultural Episode #2 clearly shows perceptual differences between two cultures, Korean and Filipino. It is good to note that in the classroom, an atmosphere of openness and tolerance is maintained. Students, regardless of nationality and cultural identity, are able to freely express their opinions and oppositions. The Korean student, coming from a different perspective was able to air his claims based on his observations and the entire class composed of Filipino college learners was able to loudly refute him. What is more striking, however, is how the teacher intervened when he made the statement "Put 'some' before 'Filipinos'". This does not only implicitly teach both the Korean and Filipino learners the use of hedging devices but also profoundly implicates that hedges like 'some' would resolve a classroom or real-life dispute.

This cultural episode shows how the language teacher perpetuates a kind of 'discourse attitude' of using cautious language which is typical of a Filipino. Unconsciously, the teacher radiates a cultural belief of not making sweeping statements or overgeneralizations in discourses. This leads the Korean to rework viewpoints by following the norm of the local culture in which he is now a part of. What the language teacher also transmits is an idea that Filipinos are very discrete in making conclusive statements or judgments. This, however, might give the impression that the Korean sounds rude which may cause the other members of the class to dislike him.

Cultural Episode #3

The class was quietly listening to the teacher as she explained what declarative sentences are. She wrote on the board the sentence "Maria likes to study a lot." She then asked the question "What is the subject of the sentence?" "What does the sentence say about the subject?" Many raised their hands and gave their answers. The last student who gave an answer, a bright but quite naughty student remarked, "Ma'am, Maria is an old name. Let's use Mary. Maria sounds *bakya* (awkward). Mary sounds *sosyal* (sophisticated). Surprisingly, the English teacher simply said with a smile, "Okay, fine. If it will make you happy." She erased the name Maria and replaced it with Mary. The students were asked to open their language books and were given time to answer a number of written exercises.

A profound analysis of Cultural Episode #3 would show that young generations regard names like *Maria* traditional, old-fashioned, or archaic. It also shows how assigning names in the Philippines has been swayed by the American influence. The student believes that *Maria* is better than *Mary* and the teacher succumbed to the perlocutionary effect of the student's suggestion. The teacher immediately changed the name *Maria* to *Mary* which is a manifestation of her bias for American names perhaps as a result of the Americanization of her own culture. This, therefore, implicitly puts the Filipino's way of naming people to the periphery in favour of English names. The teacher unconsciously perpetuated the notion that the Western culture is superior and the local culture is inferior.

However, it must be noted that: teachers need to consider how their own stereotypes and prejudices may influence their teaching subconsciously, and what the effects of this may be on learners. They also need to reflect upon how they respond to and challenge their learners' prejudices not only as teachers but also as human beings subconsciously influenced by their

experience of otherness. (Byram, Gribkova & Starkey, 2002, p. 36)

Cultural Episode #4

In an oral communication class, the English teacher read this passage to the students. These are a few of the words that women use… (1) **FINE**. This is the word women use to end an argument when they feel they are right and you need to shut up. Never use "fine" to describe how a woman looks. This will cause you to have one of those arguments. (2) **FIVE MINUTES.** This is half an hour. It is equivalent to the five minutes that your football game is going to last before you take out the trash, so it's an even trade. (3) **NOTHING** .This means "something", and you should be on your toes. "Nothing" is usually used to describe the feeling a woman has of wanting to turn you inside out, upside down, and backwards. "Nothing" usually signifies an argument that will last "Five Minutes" and end with 'Fine'. (4) **GO AHEAD** (With Raised Eyebrows) This is a dare. One that will result in a woman getting upset over "Nothing" and will end with the word "Fine". (5) **GO AHEAD** (Normal Eyebrows). This means "I give up" or "do what you want because I don't care" You will get a "Raised Eyebrow Go Ahead" in just a few minutes, followed by Nothing" and "Fine" and she will talk to you in about "Five Minutes" when she cools off. (6) **LOUD SIGH**. This is not actually a word, but is a non-verbal statement often misunderstood by men. A "Loud Sigh" means she thinks you are an idiot at that moment, and wonders why she is wasting her time standing here and arguing with you over "Nothing". (7) **SOFT SIGH**. Again, not a word, but a non-verbal statement. "Soft Sighs" mean that she is content. Your best bet is to not move or breathe, and she will stay content. (8) **THAT'S OKAY**. This is one of the most dangerous statements that a woman can make to a man. "That's Okay" means that she wants to think long and hard before paying you back for whatever it is that you have done. "That's Okay" is often used with the word "Fine" and in conjunction with a "Raised Eyebrow."

The lesson focused on non-verbal communication. The teacher used this as his springboard for discussing the significant role of gestures and facial expressions in the communication process. After reading the passage, he asked the male students if it is an appropriate description of women's actions. A loud "yes" was heard. He then asked the female students the same question and some of them answered "sometimes". Emphatically, the male teacher said,

> *"Women don't often verbalize what they think and feel. They would make you read between the lines and if you don't get the message, they'll think that you're stupid. Women are very difficult to understand."*

These remarks by the teacher created a loud noise and students could be seen arguing in their seats. A female student was heard saying "Because you men are insensitive." The teacher then said, "You women are too sensitive." The teacher cut the conversation and moved on to the next part of the lesson, a series of audio-visual presentations on nonverbal communications.

Cultural Episode # 4 is another case of stereotyped language that is, it assumes a stereotype about a group of people, in this case, women. It is quite puzzling why the teacher made such a remark, perhaps because he is a male and he assumes that he knows very well how women behave. However, halting a discussion with a remark such as "Because you are very sensitive" is an issue in the episode that should be addressed. It seems that the teacher was not conscious that he is in effect stereotyping women and that a brief remark in the classroom leaves indelible imprints in the the learners' minds. It would be more appropriate if the culture of stereotyping women as sensitive and men as insensitive was handled with more care by the language teacher in the language classroom. Further, since stereotypes and prejudices are based on feelings rather than reason, it is important to have opportunities to explore feelings as well as thoughts. This implies careful classroom management to ensure conflicts of views are productive and not destructive. In particular it is important to challenge ideas, not the people who express the ideas (Byram, Gribkova & Starkey, 2002, p. 27).

Cultural Episode # 5

In an academic writing course, the teacher was lecturing on writing introductions. As an initial task, the class was given copies of a sample introduction from an academic paper and the students were asked to comment on how

effective and well-written the sample introduction was. After approximately 15 minutes, the students were asked to give their opinions about the qualities of a good research paper introduction. Afterwards, the teacher gave a number of pointers to make introductions well thought out and appropriate for a research paper. Every pointer was comprehensively explained and examples were provided for better understanding. As one of the teacher's final notes, he said *"Make your paper direct. Do not beat around the bush. The Americans write the linear way meaning direct to the point. We Filipinos don't. We give a lot of background information which sometimes are not needed. For your introduction, I would like you to be brief and concise like how native speakers do it."* The students were divided into groups and asked to brainstorm on how they would write their own introductions.

Cultural Episode # 5 shows how the teacher unsuccessfully underscored multiplicity of rhetoric i.e., each culture has its own writing conventions that is unique or different from others. This uniqueness, as what many now promote, must be recognized and respected. This episode shows that, "stereotypical images and certain value judgments on English language and culture can be also created through learning English" (Kawano, 2009, p. 38). It is quite puzzling why the language teacher in this episode overgeneralized that Westerners are direct to the point when they write, while the Filipinos are not. His statements, borrowing the words of Tupas (2010), "blind teachers and students to the reality that within a particular national culture, there are immense differences among cultural groups as well." (p. 2)

It is also evident that the teacher insisted that students adhere to the exonormative model of writing. To impose that someone's way of writing, for example, must be followed in the local learning site is a practice that should be questioned. It is clear in this episode that the language teacher made no room for the Filipino way of composing introductions and favoured the Western way of writing. The teacher's statement "*The Americans write the linear way meaning direct to the point. We Filipinos don't."* and "*For your introduction, I would like you to be brief and concise like how native speakers do it."* subtly discriminates or undermines the local rhetoric. The teacher did not only prohibit Filipino learners to follow their own writing conventions but also promoted the Western tradition, which creates an impression that the latter is better and more acceptable. As Kawano (1999) puts it, "There is a big disadvantage if teachers tell students to follow English cultural values, English norms and ways of thinking, and acting blindly. There is a possibility that students think that English culture is superior to their own culture." (p. 40)

Cultural Episode # 6

The class was on the second day of their discussion on Philippine English. The students were asked to read a list of words that belong to the local variety. Examples include 'jingle', 'plastic', 'user-friendly', 'senatoriable', and 'salvage'. After delving into the issues on intelligibility and acceptability of Philippine English, a student raised this question: "Sir, what about "nosebleed"? There was a brief silence and the teacher said, "Well, it is very Filipino. It means very difficult, right? When someone speaks in English fluently, we normally hear other people saying, 'Whew! Nosebleed!' I think it will soon be a part of Philippine English vocabulary. Other nationalities would never use it the way we Filipinos do." The student seemed satisfied with the answer of the teacher. The teacher then announced that there would be a short essay quiz and the day ended with a fifteen-minute test.

The aforementioned episode shows how an encounter with vocabulary can lead to a long discussion of its cultural connotation (Hong, 2008). Since 'nosebleed' is a relatively new term that carries a different connotative meaning that is, 'difficult', 'mind boggling' or 'hard-to-understand' and is used mainly in the Philippines to mean that way, the student could not help but ask if its use in discourses is acceptable. The teacher's response indicates that the forms and uses of a given language reflect the cultural values of the society in which the language is spoken.

Hence, linguistic competence alone is not enough for learners of a language to be competent in that language (Krasner, 1999). The cultural episode above indeed shows how the teacher diffuses the idea of respect to local varieties of English and that newly-coined words must be understood in the light of one's cultural context.

'Nosebleed' originally relates to a physiological condition; however, in the Philippines, the term has been baptized with a totally different meaning. Hence, the attitude of the English teacher seems to favour the further growth of the local variety of English. His disposition contributes to the promotion of heightened or increased awareness of the localized variety of English which would sensitize the learners to appreciate its acceptability and perceived role in intra-national communication.

The six cultural episodes outlined above affirms Kitao's (2000) assertion that culture is widely taught in language classes. He argues however, that this poses the problems about what should be taught and how culture could be taught most beneficially. Omaggio (1993) emphasizes that instructors need to design beforehand how they will present the target culture. This will guide them in choosing what cultural matter they will introduce and how systematically it can be introduced, as well as take into account how students' input could best be integrated. Peterson and Coltrane (2003) argue that to make students cognizant of the cultural features manifested in the language, teachers can make those cultural features an explicit topic of discussion with respect to the linguistic structures being studied.

Further analysis of the cultural episodes would lead one to deduce that the English language classrooms tend to promote cultural stereotyping. This practice whether intentional or unintentional should lead teachers to a serious reflection since culture teaching in language instruction is not about stereotyping. Both teachers and students must recognize that "[s]tereotypes can undermine our sense of who we are by suggesting that how we look or speak determines how we act" (Byram, Gribkova & Starkey, 2002, p.25). Tupas (2010) believes that every teacher should take the responsibility of ensuring that "the classroom is a 'safe' place where ideas and learning practices help transform students' lives positively." (p. 27)

The Korean who thinks of Filipinos as "lazy", the student who prefers the name "Mary", the teacher who believes that "women are too sensitive", and the students who think that "men are too insensitive and promiscuous", must be led to a depth of introspection that how they describe others through their language cause overgeneralizations. When they make such hasty generalizations, they assume the same background and thought processes and patterns, though things or people are not always what they seem. It is empirically untrue. Men are all unique within themselves and within their groups. As humans, teachers and learners must constantly seek the truth. In doing so, they realize that assuming is a weak process, and they must constantly strive to know the individual. Thus, the learners must be made receptive to the concept of learning about cultures other than their own (Cakir, 2006). It must also be remembered that, "An awareness of cultural differences can avoid overgeneralization and the fallacy of stereotypes." (Xiao-yi, 2008, p.33)

In the classrooms, as we teach the language, we automatically teach culture. The forms of address, greetings, formulas, and other utterances found in the dialogues or models our students hear and the allusions to aspects of culture found in the reading for example, represent cultural knowledge. Gestures, body movements, and distances maintained by speakers should foster cultural insights.

However, there is danger in teaching culture. Kawano (1999) identifies four possible disadvantages: (1) lexical influences; (2) influences on written discourse; (3) an effect on the formation of people's view of language, culture, race, ethnicity, identity, and stereotypical images; and (4) certain value judgments about the English language and culture. Although the first two elements, the lexical influence and the influence of written discourse, can be overlooked, the third and fourth disadvantages can be serious. Teachers should, therefore, be careful in teaching culture.

Conclusion

This study attempted to answer the question "Is culture taught in English language classes? If yes, what cultural information/knowledge is taught?" The foregoing results seem to agree with the study assumptions that there are indeed 'teachable culture moments' in the English language classroom. Thus, culture must be fully incorporated as a vital component of

language learning. Second language teachers, however, should identify key cultural items in every aspect of the language that they teach. Students can be successful in speaking a second language only if cultural issues are an inherent part of the curriculum (Peterson & Coltrane, 2003).

Ideally, the study of culture should begin on the very first day of class and should continue every day thereafter. The teaching of culture should become an integral part of foreign language instruction. Culture should be our message to students and language our medium. This, however, does not imply that linguistic constructs will be ignored. Many elements of culture are embedded within the language itself. Incorporated in the curriculum, a culture class would prove to be a vital component of language learning and teaching, since as this study illustrates, it has a great deal to offer in the development of communicative competence as well as other skills in the instruction of any language (Genc & Bada, 2005).

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Creative Connections: Using Black Cultural Resources to Challenge Constructions of Gender in Life and in Texts

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Rather than being a barrier to literacy achievement, black female language practices, knowledges and understandings can be and have been used advantageously to help black females in their literacy experiences in schools (Richardson, 2002, 698).

Abstract

Recent research indicates that in many college English classrooms, faculties continue to rely on New Critical approaches to teaching literature that focus analysis on the formal qualities of a text (Addington, 2001; Barrow, 2009; Bialostosky, 2006). Teachers using this method rarely invite students to bring their life experiences into their interactions with texts and each other. This leads us to wonder how much is lost when the cultural knowledge students bring into the classroom is rejected because of teaching approaches that do not recognize, as reading reception theorists such as Bleich (1975), Fish (1980), and Rosenblatt (1995) have, that reading is a profoundly social act. In contrast to formal institutions of learning, adult reading groups provide greater opportunities to explore how readers bring their cultural backgrounds to bear on their interaction with texts. The purpose of this paper is to investigate how the members of a Black woman book club drew from shared cultural and linguistic resources to make intertextual connections between a mystery novel, *Buying Time* (Young, 2009), which details the travails of a disbarred lawyer, who is married to a materialistic "gold digging" woman, and iconic Rhythm and Blues (R&B) songs. The following research question guides this study: What cultural and linguistic resources did the participants draw upon during the book discussion and how did this enhance their understanding of the gender issues raised in the text?

Conceptual framework

The conceptual framework for this study draws from Intertextuality as a social construction, reading response theory, Critical Race Theory, and Critical Discourse Analysis.

At its most elemental level Intertextuality refers to the connections that can be made among different texts. Building on Bakhtin's concept of dialogism, Julia Kristeva (1986), who first coined the term Intertextuality, posited it as "a mosaic of quotations; any text is the absorption and transformation of another" (p. 37). Since then the meanings applied to Intertextuality have proliferated. In my readings, I have found three basic ways in which Intertextuality is used. The ***first*** focuses on the text to describe how texts borrow from each other in terms of words, concepts, and genres. In this rendering of Intertextuality, it is the author who consciously or unconsciously makes connections. The ***second*** locates Intertextuality in the reader who makes connections between one text and another in order to make meaning of the text. This "cognitive" approach describes a process in which the reader "… generates intertextual links among the textual resources to fit a particular context, borrowing, adapting, appropriating, and transforming texts in her mind…." (Hartman, 2004, p. 353)

For this study, I draw from the work of Bloome and Egan-Robertson (1993), who posit a ***third*** approach, one that views Intertextuality as a social construction focused on the reader, not in

isolation, but involved in interactions with other readers and texts. For Bloome and Egan-Robertson the mere juxtaposition of texts is insufficient to characterize these interactions as intertextual. They present two major criteria: First "A juxtaposition must be proposed, be interactionally recognized, be acknowledged, and have social significance" (p. 308). Secondly, a consideration of what Bloome and Egan–Robertson call "entitlement rights" determine the conditions under which Intertextuality can occur.

> Entitlement rights are not distributed uniformly or equitably. Differences in entitlement rights may reflect in situ cultural ideologies for defining social relationships, assigning social status and social identities, defining low- and high-achieving students, and ascribing gender, class, and ethnicity/race. (p. 312)

A social construction perspective of Intertextuality provides a valuable lens in which to view the interactions that occurred during the book club session under study, particularly when in taking up the themes of the text, the participants engaged in a type of reading that in another socio-cultural context, such as the school settings described above, might not have been possible.

An additional perspective on the book discussion is provided by reading response theory to help explain how the participants responded to the text during the book discussion. Rosenblatt (1938) first conceptualized the notion of a reader's transaction with literature by theorizing that readers responded aesthetically to literature and that it was their preconceptions that brought the text to life. Other scholars, such as Iser (1980) and Probst (1988) built on Rosenblatt's work, to explore how a reader's subjectivities radically affect different readers' interpretations of the same texts. These theorists provided invaluable insights into a reader's individual responses. In terms of this study, they help us see how an aesthetic stance allows readers to identify with characters and to make connections with texts that can lead them to arrive at new understandings of themselves. However, the ideas expounded provided less illumination into how the social context in which the reading occurs affects the reader's response. Bleich (1975) and Fish (1980) attempted to address this issue by introducing the concept of the interpretive community. They hypothesized that readers are guided by the discourse of their communities. This shift in emphasis from the individual reader to a recognition of the importance of the social context in which reading occurs presents possibilities for understanding how different communities might impact the readers' interpretations of the text.

While Fish (1980) and Bleich (1975) did not investigate the role of race in a reader's reception of texts, feminist scholars working in the field of reader response have developed a body of scholarship examining the role of gender in a reader's interpretation of texts (Fetterly, 1978; Schweickart & Flynn, 2004). In contrast, there remains relatively little work on how Black women's race and gender might intersect to impact their reading of texts in ways that might differ from both Black men and White women.

In response to the gaps presented by reading response theory (which one?), I incorporated a Critical Race Theory (CRT) perspective. CRT's analysis of race as a construct and its investigation into how gender and other identities intersect (Bell, 1993; Bonilla-Silva, 2010; Crenshaw, 2004; De Cuir & Dixson, 2004; Delgado, 1995) is partially based on Postmodernist conceptions of identity, which challenge the notion of a unitary identity, whether gender, racial, or otherwise. A Postmodernist perspective views identities as fragmented (Best & Kellner, 1997); thus, what it means to be Black or female entails divergent interpretations, and the meanings are constantly shifting.

A major tenant of CRT is that race is a social construct that provides a justification for the inequitable allocation of wealth and power. African-American identity can thus be seen as arising not from some essential biological attribute but from the fact that it is imposed for the purposes of exploitation. Yet, it is also an identity that is claimed (Omi & Winant, 1994). The imposition of a fictive category and the history that has accompanied it, that of slavery, segregation, and discrimination, have led to a historical perspective that incorporates cultural and social ways of being, leading many African Americans, such as the participants in this study, to lay claim to a cultural legacy that binds them into a community.

Finally, this study is informed by Critical Discourse Analysis (CDA) to illuminate our understanding of the wider societal implications embedded in talk (Fairclough, 1995). By exploring "the way social power abuse, dominance, and inequality are enacted, reproduced, and resisted by text and talk in the social and political context" (Van Dijk, 2003, p. 364), a CDA approach helped me explore how talk was used by the participants, during the discussion of *Buying Time,* to resist sexist viewpoints in the wider society. In particular, I am influenced by the perspective of key African-American female discourse analysts (Foster, 1995; Majors, 2004; Smitherman, (1997, 2000). Smitherman (2000) whose analysis of Black-discourse style while not specified as CDA, investigates the social and cultural contexts that inform African-American Vernacular English (AAVE) and draws our attention to the "rhetorical style and communication patterns" that typify Black English (p. 15). Smitherman (1997) argues that "black talk is… simultaneously a mechanism for learning about life and the world and a vehicle for achieving group approval and recognition (p. 80). Additionally, Foster (1995) and Majors (2004) have produced important work that explores the ways in which African-American women challenge dominant ideologies by deliberately utilizing a Black-discourse style to construct meaning and negotiate identity.

Methodology and site

The current study was developed from a qualitative dissertation case study based on a year of participant observation, field notes, and transcripts from audio-recorded book club sessions. The book club is a chapter of a book club organization called Go On Girl! (GOG). During the time that I was researching the book club (20011-2012), it met once a month on Saturday afternoons. The books read were selected by GOG's Book Committee with each chapter of the organization reading the same book in the same month. During the year I conducted the research, the book club meetings, which mostly took place in the participants' homes, tended to last between 4 and 5 hours, with members rotating hosting duties.

GOG was founded in 1991 in New York City by three female colleagues who worked in the same establishment. Their informal discussions during work about the books they were reading led to a desire to continue the conversations they were having on a more formalized basis. GOG expanded after1992, when others seeking to join the original group were encouraged to create their own chapters in order to keep the groups to a manageable size. GOG experienced a boost in membership in 1995 after an article featured in the September issue of *Essence* magazine, a lifestyle publication targeted to black women, led to over 300 women writing to the organization in order to gain information about becoming members. Today GOG has a website (www.goongirl.org) that provides extensive information on the organization, including its events, reading list, governance, and an email contact for members of the press and those who wish to become members. GOG became incorporated into a non-profit organization in 1995 and currently has over 300 members in 30 chapters in cities across the country.

There is no limit to how many chapters can exist in a city or state, and the chapter that is the subject of this study is one of eight chapters. Eight of the 13 participants in this study were between the ages of 45 and 54. Five were between the ages of 55 and 64. Two were retired. All worked or had worked in white-collar jobs. Twelve had degrees. Professions ranged from education, medicine, publishing, media, public relations, and human resources.

Data analysis

The excerpted discussion was analyzed utilizing a Constant Comparative Analysis (Glaser & Strauss, 1967) in which the discussion was coded for themes related to the participants' attitudes towards race and gender. In addition, I conducted an interpretive reading strategies analysis predicated on Marshall, Smagorinsky and Smith's (1995) coding scheme to interpret and to code the transcript. This was achieved by categorizing and coding different types of reading interactions, such as summarizing, evaluating the text, or making intertextual connections. Finally, I conducted a discourse analysis (1996; Smitherman, 1977, 2000) as a methodological tool to investigate how the participants used the discussion to explore gender issues.

In the following excerpt the participants had been discussing the mystery novel, *Buying Time* by Pamela Young (2009). It is set in Los Angeles, where Waverly, a disbarred lawyer, resorts to a legally and morally questionable career brokering life insurance deals, for which he receives large fees. A focus of attention in this excerpt is Waverly's wife, a woman the participants characterized as a "gold digger", whose major concern was maintaining a lifestyle her husband could no longer afford.

Table 1:

1 **June**: I used- there was this song when I first got out school, "Ain't Nothing Going On
2 But the Rent." I felt, I was so offended by this song, and I am like, we are not. Know
3 what I know now, I would have been one gold digger.
(Group Laughter)
4 June: I came up in the 60's and 70's I knew that we are in this together. We are all
5 equal.
(Group Laughter)
6 June: Chile please, no! I would've been one gold digger.
(Group laughter)
7 Speaker: But don't you think you are better because=
8 June: =No!
(Group Laughter)
9 Carrie: I went out with this guy one summer and he was like, I could take you to
10 ((inaudible)) I was like, you know, I was like.
11 Speaker: Take you where?
12 Carrie: All these things he could buy me, that he could get me, this that and the
13 other. Yeah, but I'm like hmmh. I could've got him to pay a bill.
(Group Laughter)
14 Carrie: Pay a bill. You could like give me some money to go take a class, you know,
15 because now I am realizing the inequities, you know. When I was young it was just
16 like, oh I'm going to get a job and make this, yeah. Men still get paid more than
17 women.
18 Speaker: Yes.
19 June: My mother really kind of, she said, you know, she really kind of pushed into,
20 you don't let them do anything for-. In her mind, like, if a man starts doing something
21 for you, he wants something. He expects that you are part of him or he could start
22 treating you ways that you don't want to be treated.
23 Bambi: My mother used to always say "Listen to this song now." and it would be
24 Candi Staton
(Group Laughter)
25 Bambi: "Young Hearts Run Free." She'd say, "You listnin?"
(Group Laughter)
26 Bambi: You listnin?
27 Speaker: (singing) Don't be a fool when love really don't love you.
(Group Laughter)
28 Carrie: (singing)
29 Bambi: You Listnin?

In line 1, June makes an intertextual reference by evoking the memory of a popular R&B song, *Ain't Nothing Going on But the Ren*t, that was a hit for singer Gwen Guthrie in 1986. June tells the women that at the time, she was offended by the song. Its message of materialism and espousal of relationships between men and women based on financial transactions ran counter to the ethos of equality between men and women that she encountered and supported in the seventies. However, in Lines 2-3, she suggests that she feels she was naïve, and if she had the wisdom then that she has now, she would, like the woman in the song, base her relationships on a man's ability to take care of her financially. When she says, "Know what I know now, I would've been one gold digger," the women respond with laughter, and June maintains her position, even when one of the women in line 7 seems to begin to ask her whether she didn't think she had benefited from her original stance that men and women should treat each other as equals.

This theme is taken up by Carrie, who speaks about a boyfriend she had when she was younger, who would offer to buy her material goods. Carrie reappraises her refusal and wonders in lines 13-17 whether she would have been better off allowing the man to buy her the things she now recognizes as important, for example, paying a bill or her fees for a class. She notes that there are still pay inequities that put women at a disadvantage. June then tells the group in lines 19-22 that her mother had raised her not to take anything from a man because she would be beholden to him, which would result in abusive treatment. In line 23, a second intertextual reference is made by Bambi when she brings up the name of another song that was popular in the 1970s, *Young Hearts Run Free*, (1976) by Candi Staton, which advises young women not to let their hearts rule their heads. The suggestion from the song is that women should be wise and not allow themselves to get entangled in exploitative relationships because of notions of romantic love.

Findings

The message the women seem to be conveying in this section of the discussion reveals a tension between the concept of the savvy woman symbolized by the "gold digger" and the naïve self-reflected in Carrie's recollections of her youth. At first glance, this message might appear contradictory. June's advocacy of male/female relationships based on financial gain, along with Carrie's regret for not benefiting financially from previous relationships, is countered by June herself in lines 19-22 when she tells the group without a hint of irony that her mother had warned her not to take anything from a man in order to avoid becoming dependent and under his control.

As I participated in the discussion (I did not speak, but I certainly joined in the laughter and later transcribed it) I struggled to find words to characterize June's participation. Instinctively, I knew she was conveying a certain truth through humour. However, when I turned to the literature on discourse in African-American communities, I could find no description of the discourse feature she had utilized. A few years later, I was discussing the excerpt with an African-American friend and told her how frustrating it was not to be able to have a theoretical name for the 'riffing' (talking through stream-of-consciousness thinking) June had been engaged in. My friend smiled and said, "That's exactly what she was doing. She was riffing!"

Those familiar with jazz know that a riff is a repeated musical phrase that anchors and dominates a song. A second definition offered by the Merriam Webster Dictionary calls it "A rapid energetic often improvised verbal outpouring; especially one that is part of a comic performance" (http://www.merriam-webster.com/dictionary/riff.) In this context, it is possible to see June's interactions as a riff that humorously conveyed the tensions, contradictions, and alternate perspectives encapsulated by her's and the participants' perception of the "gold digger." To gain an understanding of the exchanges that occurred during this part of the book discussion, it is important to recognize the performative function of such a communication style and how it functions as a "teaching and socializing force" (Smitherman, 1977, p. 79).

It is no accident that the means by which the women communicated messages about gender were channeled through these iconic R&B songs introduced in line 1 by June and Line 23 by Bambi in her reference to the song *Young Hearts Run Free*. In fact, as Smitherman (2000) has noted, many African-American proverbs have become reincarnated as the title of songs, such as *Still Waters Run Deep*, by Aretha Franklin and *Smiling Faces Sometimes Tell Lies*, by Undisputed Truth. Smitherman has further pointed out that such proverbs (such as?- to become victims of romantic hearts?) are used by Black mothers to pass on important lessons to their children (p.218). Bambi's mother can thus be seen as using a song to pass on crucial information to her daughter about male/female relationships, and Bambi, in turn, is reminding the women of this important lesson.

Discussion

It is important to note that in referencing R&B songs the participants were drawing from the Blues, an African- American musical form that has a tradition of hard-living blues women, such as Ma Rainey and Bessie Smith. Through their songs, these women gave voice to the desires and values

that many African-American women place on strength and independence in women (Beauboeuf-lafontant, 2009; Collins, 2000; McDonald, 2007). Being blues women, their interpretation of independence would likely not be to everyone's taste. A strong woman in the blues women's terms might be a woman who would use and abuse a man instead of allowing him to use her. Thus, while the participants may not have been expressing literal support for the "gold digger" mentality, it is likely that they share a refusal, along with the blues women, to become the victims of romantic love, as Bambi's reference to *Young Hearts Run Free* demonstrates.

In recognition of this, Angela Davis (1998) noted:

> The blues women openly challenged the gender politics implicit in traditional cultural representations of marriage and heterosexual love relationships. Refusing, in the blues tradition of raw realism, to romanticize romantic relationships, they instead exposed the stereotype and explored the contradictions of these relationships. By so doing, they redefined women's "place." They formed and memorialized images of tough, resilient, and independent women who were afraid neither of their own vulnerability nor of defending their right to be respected as autonomous human beings (p. 41).

Of course, another explanation for why June took on the persona of the "gold digger" through her riff, could be that she was simply having fun. This interpretation is supported by reading response theory, (which ones?) which views such affective responses as the reader seeking escape by living vicariously through a character (Appleyard, 1991; Bleich, 1975; Holland, 1975; Radway, 1991; Rosenblatt, 1995). To do so does not require complete identification on the part of the reader, but her transaction with the text allows her to go beyond her own experiences to enter into the lives of a character that triggers the sorts of insights that allow her to empathize (Rosenblatt, 1995). In fact, this perspective and the one afforded by the discourse analysis I conducted are not mutually exclusive but rather work in tandem to explain how and why the women reacted as they did in this part of the discussion.

In drawing upon their shared cultural and linguistic resources, the participants engaged in a transaction with the text that allowed them to go beyond their own experiences to enter into the lives of an "unsympathetic" female character (Rosenblatt, 1995). Following the criteria established by Bloome and Egan-Robertson (1993) discussed earlier, the women's intertextual engagement was recognized, acknowledged, authorized, and was socially significant. This is clearly demonstrated by the laugh of recognition and of encouragement that accompanied June's evocation of *Ain't Nothing Going on But the Rent* and the fact that it inspired Carrie to continue the theme through her personal revelation and Bambi to make a second intertextual reference through her evocation of *Young Hearts Run Free*. In addition, by employing intertextual references the participants were "constructing texts as cultural worlds" (Galda & Beach, 2001, p. 67). In effect, they went beyond interpreting the actions of the characters they encountered, to framing these actions within the existing ideologies in which the characters and their actions occurred. This is demonstrated by the ways in which the participants framed their discussion of the "gold digger" in *Buying Time* in terms that contextualized her behaviour as part of a continuing system of gender inequality.

Concluding thoughts

This study's findings build on literacy research (Delpit, 1995; Gay, 2000; Ladson-Billings, 1994) that suggests that students in formal institutions of learning would benefit from pedagogical approaches that provide them with spaces in which their cultural knowledge is valorized and where they are able to construct meaning in ways that are empowering. Several African-American scholars such as Michele Foster (2002) and Carol Lee (1993) have pointed to the important role that African-American discourse styles can play in the classroom. Foster's study of African-American teachers, women whose class status mirrors those of the women in this study, describes how they have successfully utilized African-American call and response to communicate and engage, with African-American students in K-12 and higher education. Furthermore, Carol Lee (1993) has produced

important work that has influenced teacher training by creating pedagogy that recognizes the significant role that African-American discourse can play in allowing African-American secondary students entry points into texts. Yet African-American discourse styles continue to be undervalued. Referring to African-American Vernacular English (AAVE), Majors (2004) states, "AAVE along with other language varieties that are not dominant in world academies, is demonized as incapable of propelling intellectual reasoning" (p. 184). In such a situation, the question as to what extent schools can become places that authorize students to bring their culture to bear on their understandings of texts, as the women in this study did, has yet to be answered.

Table 2: Transcription conventions.

Transcription Key Symbols	Explanation
( )	Vocal noises
!	Animated tone
?	Rising tone/question
[ ]	Overlapping Speech
__	Underline for stressed words
=	No pause between words
(( ))	Researcher's comment

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Appendix A

Ain't Nothing Going On But The Rent by Gwen Guthrie (Abreviated Version)

Bill collectors at my door
What can you do for me
No romance without finance
No romance without finance

Boy, nothin' in life is free
That's why I'm askin' you what can you do for me
I've got responsibilities
So I'm lookin' for a man whose got money in his hands

'Cause nothin' from nothin' leaves nothin'
You got to have somethin' if you wanna be with me
Oh, life is too serious, love's too mysterious
A fly girl like me needs security

'Cause ain't nothin' goin' on but the rent
You got to have a J-O-B if you wanna be with me
Ain't nothin' goin' on but the rent
You got to have a J-O-B if you wanna be with me

No romance without finance
I said no romance without finance

Boy, you're silky ways are sweet
But you're only wastin' time if your pockets are empty
I've got lots of love to give
But I will have to avoid you if you're unemployed

'Cause nothin' from nothin' leaves nothin'
You got to have somethin' if you wanna be with me
'Cause life is too serious, love's too mysterious
A fly girl like me needs security

'Cause ain't nothin' goin' on but the rent
You got to have a J-O-B if you wanna be with me
Ain't nothin' goin' on but the rent
You got to have a J-O-B if you wanna be with me

No romance without finance
I said no romance without finance
No romance without finance
I said no romance without finance

Oh, you look good to me

Your silky words are sweet
But your pockets sure look empty

Ain't nothin' goin' on but the rent
I'm lookin' for a man to put some money in my hands

Appendix B

Young Hearts Run Free by Candi Staton

What's the sense in sharing
This one and only life
Endin' up just another lost and lonely wife
You'll count up the years
And they will be filled with tears
Love only breaks up, to start over again
You'll get the babies, but you won't have your man
While he is busy loving every woman that he can, uh-huh
Say I'm gonna leave a hundred times a day
It's easier said than done
When you just can't break away
(when you just can't break away)

[Chorus:]
Oh, young hearts run free
Never be hung up
Hung up like my man and me
My man and me
Ooooh, young hearts, to yourself be true
Don't be no fool when love really don't love you
Don't love you

It's high time now just one crack at life
Who wants to live in, in trouble and strife
My mind must be free
To learn all I can about me, uh-hmm

I'm gonna love me, for the rest of my days
Encourage the babies every time they say
Self preservation is what's really going on today
Say I'm gonna turn loose a thousand times a day
But how can I turn loose
When I just can't break away
(when I just can't break away)

Oh, young hearts run free
They'll never be hung up
Hung up like my man and me
You and me
Ooooh, young hearts, to yourself be true
Don't be no fool when love really don't love you
Don't love you

Helping Students Learn Beyond the Bounds of Their Imagination: Lessons from a Global Citizenship Practicum[1]

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Abstract
The author revisits a global citizenship practicum he co-facilitated in 2003. His interviews with former participants show differences in what he and his teaching colleague remember and what students remember, revealing three critical teaching functions for facilitators of global citizenship practicums: fostering autonomy and independence, encouraging critical engagement, and being trusted elders. Implications for student learning and teaching practice extend to any situation where teachers want to cultivate a sense agency, independence, and critical outlook; for when teachers want students to learn beyond the bounds of their imagination.

In the spring of 2003, a colleague and I at *The Collegiate at the University of Winnipeg* in Winnipeg, Canada took thirteen high school students on a trip to Costa Rica. It was a part of an eight-month global citizenship course[2], which culminated in living and working for two weeks the village of Pedrogoso, Costa Rica. Eight and a half years later, as part of a Ph.D. research project, I re-visited the experience with many of the participants, curious to know what they remembered of that time and what sense they made of that experience these many years later. I was interested in whether or how the practicum had accomplished what it had set out to do – cultivating qualities of global citizenship [3], and if those effects were lasting [4]. The revisit included recorded interviews with eleven of the fourteen participants in the summer of 2011 (including with my colleague and co-facilitator).

As can be imagined, what participants remembered, how they perceived it and related it to their lives, differed in perspective and consequence and with varying degrees of intensity and complexity. Each individual brought a distinct perspective, insight, and set of memories to the interview. However, as the summer of interviews unfolded and the transcriptions began to pile up, and in the midst all of the different responses to the questions and queries, several themes began to emerge. Not surprisingly, one of the themes was change and transformation. For many participants, Costa Rica 2003 represented an experience that transformed their perspective on the world and their relationship to global 'others' and generated an expanded sense of agency and hopeful possibility (Kornelsen, 2013).

Interestingly however, there were several significant differences between what my teaching colleague and I remembered and how we interpreted the experience and what the students recalled and how they understood the experience. These differences pointed to several roles she and I played, often unwittingly, as facilitators of the practicum, that were important to cultivating perspectives of global citizenship. And it is with this that this article is concerned. Through examining the different lenses students and teachers brought to the revisit, three critical teaching roles for facilitators of high school global citizenship practicums are revealed.

Who remembered what

I begin with the memories of pre and post trip activities. Even though, the focus of the interviews was on the two-week experience in Costa Rica, in most instances at some point in the conversation I would ask about the pre- and post- trip classes, preparations and debrief sessions, seeking impressions on how those sessions might have shaped/ influenced/ informed the Costa Rica experience. This is some of what I was told:

(All names are pseudonyms)

"To be honest. . . nothing sticks out for what we did in preparation. Obviously we talked about the cultural differences and that sort of thing. I can't remember anything profound off the top of my head, but, it was obviously important to go through, important to look over before going." (Maya)

"Just being a little bit scared that is what I remember [about the pre-trip sessions].

[The debrief sessions] were fun. I don't really remember what we talked about; but I know that it was great to see everyone." (Lily)

"To be honest, I don't remember much about the preparations or debrief at all. I remember that we had prep sessions, and we were encouraged to work on our Spanish. I don't remember the debrief at all! I'm sorry. Don't take it personally." (Nell)

In sum, most participants' memories of pre- and post- classes were either non-existent or limited to mostly emotional recollections. What about Adrienne, my colleague and co-facilitator? Early in our conversation she said this:

So that was eight years ago. There have been five trips to Costa Rica from the *Collegiate* since then. I've been the recipient of these students, these later students, and their reactions when they come back, and I realize to what extent preparation is everything.

And I agree. And so does the scholarly literature (see below). And this raises the obvious question, if Adrienne and I believed that preparation was 'everything', why was so little of it remembered by students?

An observation

A partial answer may lay in the responses to another question: What advice would you give prospective participants. Other than to "do it" (on which there was unanimity), the most common and oft-repeated response was to go with an open mind, and to have few expectations. This was conveyed in different ways; the following provides a sense of participants' nuanced and textured perspective.

"Try to keep your mouth shut, and listen to what they have to say. And try not to judge when you see something that's different from how we do things back home. See the person; see the people. Because the things that you're going to learn are not what you expect. It's going to be completely different." (Lily)

"I think it all comes down to telling them to just be open and lose their expectations and to accept good and bad." (Emma)

"I guess I would tell them to just really enjoy it. It's such a great experience and opportunity that it is really important to go with an open mind and be really adaptable." (Nell)

"Well I would definitely say to them that if they are going to take an experience, they should take it with the most complete open mind that they possibly can. Just try to immerse their Self in the situation, the families, the communities." (Matt)

The advice of program participants was direct and unequivocal: Keep your mouth shut and listen; See the people; What you're going to learn is not what you'll expect; Lose your expectations; Go with an open mind and be adaptable; Take the experience with the most open mind possible; Leave everything at home; Stop thinking and start feeling. Never follow the line.

And the program facilitators, did they concur? Yes. Adrienne believed this to be the hallmark of our program, and critical to its success. This is what she said at the start:

We went there like a virgin group . . . We had no specific expectations. So we went there really open to everything, and we weren't hoping for anything specific . . . But our kids came back feeling like they'd made a difference; and feeling like it had been a life-changing experience.

And this was her advice to other groups / teachers:

You have to teach them as we did, unknowingly, in our blissful ignorance, we just said, "Have no expectations." But I think that is still the best piece of advice: to go there knowing that, anything can happen, and not to think, not have preconceived notions about these people . . . So that's the message I think you have to give the kids, is just go with an open mind.

I agree with Adrienne, with the gist of everything she says. I remember being very concerned about the dangers of ill-informed and preconceived notions shaping students' experience, preventing them from seeing and learning, confirming ill-founded and prejudicial or patronizing attitudes. And so unlike the course theory, preparation and post trip debrief sessions, teachers and students, all concurred on this, and deriving a similar conclusion: The most important thing in approaching experiences like Costa Rica is openness (both as noun and verb; to open and be open), not to have expectations.

Something else: I don't remember telling or teaching students not to have expectations. And as Adrienne noted above, if we did, 'we taught them unknowingly, in our blissful ignorance.' However Jayne remembers that we did:

It was probably everything beyond anybody's expectations of what it would be because you said from the get-go not to have expectations. You didn't want us to see pictures. There was a big emphasis on keeping expectations to a minimum about what we were doing. We were all kind of like nobody knew what to expect.

It appears as though our private anxieties were felt by others. I may not remember telling students not to have expectations, but I do remember being worried that students would be disappointed with the experience. And given the circumstances of the program – this was a first for everyone – no one really knew what to expect – students or teachers, perhaps as Adrienne suggests unbeknownst to ourselves, she and I inevitably and openly conveyed our concerns, worries, states of mind about expectations and openness.

To summarize: the in-class preparation was mostly not remembered, and what everyone agreed was most critical was transmitted mostly out of happenstance, and without much conscious intent.

Another observation

Lily reminded me of something else about which I had not given thought:

The fact that we had your trust, that was huge too. That was really important, and it also I think made us more confident in how we interacted with people. Because by you trusting us made us feel like, "Ok, yeah. I'm trustworthy."

Jayne saw something similar, and analyzes why:

Adrienne and you treated us like we were one of you when we were there. I'll never forget when we went and stopped at Adrienne's house, me and Lily did. And she talked to us like she was a student with us. She shared some experiences . . . there was something about that that was distinct because everything was new to everyone, everybody involved. So much of the experience was seeing our teachers in the same place as we are.

What Jayne and Lily describe here – being trusted, being seen and treated as fellows – is not something to which I had given much thought – before, during, or after Costa Rica. Perhaps it is, as Jayne suggests, derivative of the fact that we were all equals, by virtue of the experience being a significant first for us all, along with the requisite fears, novelties and sharings. We were all in this together. And this, eight years later is remembered by participants as having enriched the experience – being trusted, and having teachers relate to them as equals. What Jayne means with 'so much of the experience' is not clear; but I wonder whether it (being free and trusted) allowed for fuller participation, or as Adrienne alludes to below, greater 'sentience'.

And finally, when I asked Adrienne whether we had accomplished our goals in Costa Rica, she said,

I feel pretty confident that we did. I went with no expectation in terms of the kids, how much they would actually glean from this experience. In our debrief after I was amazed at what came out, stuff that I hadn't noticed or picked up on. They're very feeling sentient little beings, and they picked up a lot of interesting things.

This is as I witnessed, and as I understood it. I too was amazed at what 'came out.' And like Adrienne, I went with few expectations about what the students would take from the experience. This is not to say we did not have hope or intention, and saw great learning potential in the experience, but whether it would

happen, and specifically how, we did not know. When the time came, during the Costa Rica trip itself, we were mostly pre-occupied with keeping the kids safe and alive. But when it was over and when we came back, we discovered the kids had learned things in ways, and at depths, we had not expected.

Summary

At surface, then, some unsettling conclusions might be drawn from the disparate and various accounts above. Most of the time spent in the classroom before or after the trip seemed of little learning consequence to the students, at least if memory serves an accurate gauge – this in spite of the substantial time and effort expended by everyone, and by the fact that the teachers thought these preparations to be of invaluable importance. The part of the preparation that was universally acknowledged, by students and teachers, to be of critical importance – to be open and travel with few expectations – apparently was conveyed mostly by happenstance, and not by design. Finally, as Jayne alludes, and as I heard from several other participants, teachers were at their teaching best when they weren't teachers at all, but 'one of us'. Indeed, in the end, both Adrienne and I were surprised at how much students had learned and taken from the experience, understanding that it might have been in spite of us, and certainly because of students' own sentient independence.

What does this mean for facilitators of global citizenship practicums, and what are the pedagogical implications? An examination of literature inspired by education theorists like John Dewey and Paulo Friere, and a re-examination of the memories and meanings of practicum participants offer insight and illumination.

Teaching roles

Even though students expressed appreciation for their teachers, they said or remembered little about the formal pedagogic role they played in the practicum. In many ways this ambivalence is reflected in the scholarly literature. George Walker (2006), as head of the International Baccalaureate Organization (IBO), one of the most prestigious posts in international education, in his book *Educating the Global Citizen* says this:

> The success of every educational endeavour depends upon a teacher . . . School buildings are important, the number of books in the library matter, the IB programmes are the gateway to an enlightened education, but without the right teachers the whole lot come crashing down (p. 45)

But after this singular endorsement of teachers, Walker offers little in clear answers about what teachers do or could do to 'keep the whole lot from crashing down'. He is not alone. The silence on the teacher's role in 'teaching' has a long history, from Socrates' assertion that teaching anything is impossible (since all learning is re-collection) to Heidegger's (1968) contention that teachers should just let learners learn, to Rogers' (1969) claim that teachers don't teach learners anything and are at their best when they don't interfere. Even Dewey (1916), who argued that teachers play an indispensible role in facilitating learning, says that "we can never teach directly, but indirectly by means of the environment (p.17); (and what) conscious deliberate teaching can do is at most to free capacities (already) formed for fuller exercise"(p.19). This teaching silence is implied in the remembrances recounted above.

And yet, Todd (2003), says, "teachers, as the vehicles through which the pedagogical demand for learning to become is made real for students, cannot escape their role' (31), nor argue others (Jarvis, 1995; Van Manen, 1990, 2000), their responsibility. I agree. That the CR '03[5] teachers felt responsible, for doing the right thing, pedagogically and otherwise was an abiding and foremost concern. Here is Adrienne:

I was very aware of these 13 young people I was responsible for. And so I remember getting on the bus in the morning and I could feel already even before anybody spoke, I could feel almost which way the day was going to go . . . So it was that awareness always. I mean it was a huge responsibility for me, and I don't think I realized till I got there just how big this was . . . So that's probably my strongest impression, still today.

And mine. I remember sleeping only three or four hours a night, worried about the well-being – physical, emotional, educational – of those thirteen young people. And what animated

Adrienne's and my discussion more than any other – before, during and after CR– was the issue of when to intervene and when to let be, for the sake of those frames of well-being. All of this is to suggest that Adrienne and I must have believed that we were playing a necessary and pivotal role. But what was it exactly? It turns out on closer examination of what participants said and did not say, teacher-facilitators of global citizenship practicums, wittingly or not, perform three critical functions. And none of them have anything to do with making pedantic entreaties about global citizenship.

Being a trusted elder

First, beyond the most obvious, keeping the students alive and healthy, it is being a person who inspires involvement and participation in a global citizenship practicum in the first place. As Phillips (1998 in Todd, 2003) says, it is being an elder whose judgment can be trusted – trusted for a particular experience's significance.

Not discounting circumstance, personal predisposition or familial proclivities to engage in international life-altering activities, when participants were asked what or who had been the greatest determinant in their decision to sign up for the Costa Rica practicum, seven named a parent; six identified a teacher/s. Jacob echoed what half the group said: "I knew this was something that you (and Adrienne) were interested in . . . so I knew that it would be something I would be interested in [too]." In short, the decision to participate in the program in the first place was significantly influenced by trusted adults, a parent or a teacher, or both. This suggests that one of the primary influences of teachers, perhaps their most affecting pedagogy, derives not from delivering course content, or facilitating pre-trip preparations, but from a trusting relationship with students.

Encouraging critical engagement

According to experiential learning pedagogues, critical thinking and reflection are crucial to any effective learning derived from experience. In unambiguous terms, Lutterman-Aguilar and Gingerich (2002) say,

> Any educational endeavour, including study abroad that does not structure reflection and critical analysis of the international experience itself into the curriculum is not engaging in experiential education. (p. 45)

Based on the critical pedagogy and theory of John Dewey and Paulo Friere, the biggest challenge for global citizenship practicums, and hence an essential responsibility of its facilitators is cultivating critical engagement – combating thoughtless and unreflective experience, and addressing issues of power and privilege (Kornelsen, 2013). To this end, practitioners call for pre and post trip critical reflection in study abroad or international service programs (Grusky, S. 2000; Malewesky & Phillion, 2009; Sichel, B. 2006; Willard-Holt, 2000). For as Fred Dallmayr (2007) concludes in writing about creating a world governed by cosmopolitan ideals, it is best to create spaces for people and cultures to learn about each and from each other as equal participants.

What happened in Costa Rica? Participants had little memory of participating in formal sessions of critical analysis and reflection such as those recommended by theorists and practitioners. Yet there were many examples where participants responded critically to previously held assumptions and perspectives (e.g. questioning North American ethnocentrisms, Western cultural domination (Kornelsen, 2013)). Eight years later, when asked what advice they would give future participants their responses were unequivocal: 'Be open, and keep your ethnocentrisms in check'. (See above)

So who or what facilitated these occasions, perspectives or responses of critical insight? A part of it might be accounted for by a critical stance several participants took into the practicum in the first place; a part of it might be attributed to a growing awareness in the intervening eight years, as implied by Sara's observation "As in any encounter (I realize now) it's not about the trip itself; it's about the lens you chose to understand it through, and how you factor it into your life, how you position yourself." And a part of it may have been due to the incessant worry Adrienne and I had about students making pre-mature and ill-informed judgments of people and situations. Even though eight years later, she and I had little memory of making open and formal appeals to think

critically – as Adrienne admitted, "Unknowingly, in our blissful ignorance, we just said, 'have no expectations'. [6] Apparently our private anxieties became public.

(I remember) how we had been prepared that we were supposed to be very open to the places that we were going, and the cultural differences. There was always a big emphasis put on . . . . you're going into a different culture.' (Jayne)

Fostering autonomy and independence

Dallymar (2007) says that for students to learn to be cosmopolitan, they must be respected for their autonomous capacities to learn and discover. The truth of that statement was demonstrated in our post-trip debrief sessions. To re-quote Adrienne:

I went with no expectation in terms of the kids, how much they would actually glean from this experience . . . In our debrief after, I was amazed at what came out, stuff that I hadn't noticed or picked up on: They're very feeling sentient little beings, and they picked up a lot of interesting things.

These were things that neither she nor I necessarily anticipated or predicted; these learnings emerged from students' autonomous selves, and without any conscious pedantry on our part. Dewey (1997) says that

> perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular thing he is studying at the time. Collateral learning in the way of formation of enduring attitudes of likes and dislikes, maybe and often is much more important than the spelling lesson or lesson in geography or history that is learned. But these attitudes are fundamentally what count in the future. (p. 48)

The most important things students learn in school, Dewey (1997) claims, are not the content of the formal curriculum per se, but are collateral, such as attitudes that affect one's bearing in the world and one's disposition to future learning and growth. This is not unlike Adrienne's observation that what students 'picked up', independently of us was of critical importance, and not necessarily part of the intended formal curriculum. It is with this in mind that Dewey (1997) says freedom is a critical pre-requisite for students to get to know themselves and their relationship to the world.

What Dewey, Dallymar and Adrienne suggest is that students' most important learning is self-discovered, happens autonomously, and often in the cracks of the formal curriculum. But are they saying by this to just let students be, let them find themselves and their own way in the world, and they will grow into paragons of cosmopolitan virtue? No, says Dewey (1916); while we may never educate directly, we do so indirectly by means of the environment, and "whether we permit chance environments to do the work, or whether we design environments for the purpose makes a great difference" (p.18). Teachers play a pivotal role he says in creating circumstances and environments of balance, facilitating experiential continuity through an expanding layering of learning experiences, providing ongoing experiences that learners find challenging but not so challenging or different from each other that there is no continuity between them. The goal is to foster independence and growth of an ever-expanding world.

Finding this balance between challenge and capacity was our constant worry – Adrienne and I – between keeping students safe and challenged within their means, and respecting their freedom and sentient independence – with a view to cultivating independence and growth. How was our concern interpreted and experienced by participants?

Lily and Jayne felt trusted and respected as equals (see above). What is notable in both Jayne's and Lily's responses is the impact of a teacher's 'nod.' In this case, our orientation of trust and equality was remembered vividly eight years later and interpreted with consequential significance; it shows how a teacher's trust and bearing of equanimity can confer confidence and independence.

There are two implications for Dewey's (1997) learning landscape, as regards Costa Rica: First, teacher-relationships are an inextricable part of Dewey's challenge-capacity learning dynamic, cultivating self confidence in students' capacities and bearing in the world. Second, if so, heed must be given to Friere's

(2007) imperative that teachers' can only help learners name their own worlds – to make learning their own – through dialogical and inter-subjective relationships.

Others like Emma and Maya talked about how they felt the program's 'safety net' provided an 'extra comfort zone' and support in processing cross-cultural challenges, precursory for future independent travel. Lily, Sara, Lauren and Nell talked of how being able to meet the challenges of the experience fostered independence and imagined possibilities.

However, for Bill the trip was too restrictive; he desired more freedom to explore and discover and unveil. He did not think the Costa Rica trip had had an immensely significant impact on him. Nor did he know why exactly – citing possibilities like age, preparation, language challenges – but several times he mentioned a thwarted desire to explore on his own. These conflicting perspectives speak to a pedagogic challenge of facilitating group learning situations: balancing competing needs.

But in the end Adrienne was 'amazed at what came out', not so much through anything she or I did, but because of students' sentience. However, students might not have been as sentient if not for an expanded sense of independence fostered through teachers balancing challenge and capacity and communicating confidence and equanimity.

Rogers (1969) says the best that teachers can do is not interfere with student learning. This may be so, but teachers are pedagogically responsible for the learning environment (Dewey, 1997), and morally responsible for relationships with their students (Jarvis, 1995). In the case of Costa Rica, both of these – learning environments and relationships with teachers – may have been antecedents for students' growing independence and for them learning beyond teachers' imagined possibilities.

Conclusion

To conclude, a personal revisit of a 2003 global citizenship practicum showed that teacher-facilitators of high school practicums play three important roles in cultivating cosmopolitan perspectives: being trusted elders, encouraging critical reflection, and facilitating learner independence. These roles do not function in isolation, nor can they be thought of as instruments or tools to be used by teachers on students to 'make' global citizens (Dunne, 1993). They are embedded in teacher-student relationships and reside in the person of the teacher; and therefore have implications for teaching practice that are both pedagogic and moral – and with universal reach.

Students' sense of agency, independence, and critical outlook are heightened when they trust their teachers and their teachers trust them, when their teachers foster autonomy and look at the world critically. In these circumstances students' learning may far exceed what was originally expected or anticipated. If this is the case, then the teaching and learning that happened in Costa Rica has implications far beyond a global citizenship practicum. For if what happened to students in Costa Rica derived from teachers' relationship with their students and with their world, then do those same teaching roles not matter anytime we want students to reach beyond what we might envision, imagine, or control; for when we want them to create?

Endnotes

1 International global citizenship practicum programs geared to youth abound in universities and high schools across North America (Lutterman-Aguilar & Gingerich, 2002). Indeed they are a growing trend (Schultz & Jorgenson, 2009). These types of programs are found in many disciplines, take several different forms (e.g. work-study abroad programs, international service learning courses, etc.), and range in length anywhere from two weeks to six months or more. These programs share several characteristics. First, they are organized excursions taken by students and faculty to different countries where they are immersed in a culture different from their own (Grusky, 2000). Second, because of their international social justice emphasis, they often take place in the Global South, and include some kind of work, service, or engagement with a host community. Third, one of their stated objectives is to cultivate a sense of global citizenship.

2 *Global Citizenship 41G* was a full eight-month high school global citizenship course, including weekly classes, pre- and post- Costa Rica, replete with lectures, discussions, role-plays, videos, written assignments and Spanish lessons. The course had a written curriculum with clear learning objectives, goals and outcomes (approved and authorized by *Manitoba Education*).

3 Even though there is no agreed upon definition of global citizenship (Schultz & Jorgenson, 2009), a review of scholarly literature sympathetic to the concept of world citizenship (Nussbaum, 1997; Boulding, 1990; Heater, 2002; Appiah, 2008; Schattle, 2008) points to a cluster of three characteristics: A global citizen is someone who: recognizes a common humanity, and hence appeals to a universal sense of justice; has an open predisposition, being able to see the world through the lens of people who are different from themselves; has a sense of agency and responsibility, and hence is able and willing to engage the world thoughtfully, helpfully and hopefully.

4 It is documented that global citizenship practicums can have beneficial effects in cultivating qualities of global citizenship; indeed, they may have a transformative impact. However, little qualitative research has been done on longer-term affects, particularly for high school youth, and on how the practicum experience is perceived and understood by participants many years later.

5 CR and CR'03 denote Costa Rica and the '03 Costa Rica practicum.

6 Having no expectations is in fact a nuanced statement and engages a variety of lenses of expectation. So, to be specific, this is what I think we meant: My over-riding concern, one birthed in my transient childhood, was for students not to make pre-mature and ill-informed judgments of people and circumstances, whether out of fear or ignorance. Adrienne's concern, arising from living and traveling abroad, was not wanting students to have 'preconceived notions of the people' in ways that might impede a flourishing engagement with the world.

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Identification of Gifted and Talented Children in India: A Preliminary Study

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Abstract

The purpose of this study is to develop an initial measure for identifying gifted youth in India. The study will also assess differences in the performance of two groups of children (one group who performed well in school assessments and the other group who did not do well in the school assessments, but the teachers thought they had true intellectual potential) in the preliminary identification. Twenty-four children in third, fourth, or fifth grades attending a school in India participated in the study. Researchers used the Academic Competency Checklist (ACC) (Jambunathan & Jayaraman, 2011) as the preliminary measure. The checklist was for children in grades three through seven comprising of 197 questions in five sections. The items were scored as "Yes" or "No". The results suggest that there were significant differences in the performance of the two groups of children only in the social emotional development section of the ACC ($t = 8.43$, $p \leq .001$).

***Keywords*:** Identification; academic competency; gifted education; performance level.

Introduction

Gifted education is loosely defined as the education of children who demonstrate superior skills in more than one area in the academic and creative arenas. Gifted children as defined by National Association for Gifted Children as stated in their position statement (2002), are "*Students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities".*

Above-average ability is the first criterion for identifying gifted persons. General intellectual ability is measured by tests of general aptitude or intelligence with scores ranging in the 95-98 percentile or two standard deviations above the norm. In terms of an intelligence quotient (IQ), the gifted are those individuals having an IQ of 130 or higher. Unites States of America Office of Education (USAOE) has defined gifted children as having superior skills in one or more of the six areas: Creative thinkers, General intellectual ability, Specific academic ability, Leadership skills, Psychomotor, and Visual and Performing Arts. No child will be gifted in six areas, but some may be in more than one area. Within specific academic ability, students again usually have one or two subjects that they are best in and are passionate about (Renzulli, 2011).

However researchers like Renzulli (1978), Gardner (1983), Gagne (2005), Sternberg (2003) and Monks (1992) argued against this cookie cutter definition of gifted children. Renzulli (1978) argued for the inclusion of other concrete dimensions to the definition and globalization of giftedness. He called attention to two other critical indicators of giftedness, i.e., Motivation and Creativity. He argues that the six areas narrow the global perception of giftedness and focus more on performance and process-oriented skills.

In his Three-Ring Conception of Giftedness, Renzulli (1978) identified three main domains of giftedness - above average ability, creativity, and motivation or task commitment. Above-average ability refers to one's ability to do well in areas of general and specific performance achievements as

measured by traditional methods. This dimension tends to be the most constant of all the three dimensions. Creativity refers to more unconventional thinking and production of ingenuous solutions. Task commitment is the nonintellectual ability to remain focused on developing a particular skill and remaining committed to continuous learning and improvement despite obstacles and failures. Each of the areas is intertwined and one is not more important than the other.

Sternberg (2003) in his triarchic model proposes that superior intelligence is comprised of three essential components: Analytic skills or componential intelligence which is the ability to think and process abstract information; Synthetic skills or experiential intelligence is the ability to view information in a creative manner; and Contextual intelligence or the ability to use intelligence to deal with everyday issues. Sternberg contends that these three components are indispensable to giftedness. He also acknowledges the importance of the environment and experiences the child might have in the development of successful intelligence.

Gardner's (1983) Theory of Multiple Intelligences highlights the importance of viewing intelligence as being multidimensional. He proposed that every person has eight independent intelligences (verbal, musical, logical-mathematical, interpersonal, intrapersonal, spatial, bodily-kinesthetic, and naturalist). These intelligences work together and one might be strong in more than one area. This type of classification of intelligence is beneficial to educational programs in differentiating instruction and diversifying the curriculum.

The Differentiated Model of Giftedness and Talent (DMGT) proposed by Gagne (1999, 2000) highlights the difference between gifted and talented. He explains that giftedness stems from naturalistic abilities and can be manifested in one or many areas. He explains that talent is the mastery of systematically developed abilities or skills. Gagne (2000) recognizes the following aptitude domains in the natural abilities area: Intellectual, creative, socio-affective and sensorimotor. He explains that talent can be developed in a variety of areas ranging from leisure to organized sports. Gagne (2000) in his model of DMGT proposes that children who are in the top 10% of their natural abilities and trained talents can be identified for further support and development. He also recognizes that natural gifts and trained talents can be influenced by a plethora of factors. He has classified them into intrapersonal and environmental factors and chance.

Research on gifted identification has shown that one should not rely on one mode of identification or advanced level of functioning in one area. Instead, one should use multiple assessments and the children should demonstrate superior skills in more than one area. Very often many educational programs and institutions rely on children's performance on traditional measures of academic achievement for entrance into programs for gifted and talented children, with creativity being ignored. As a result, children who show superior skills in the creative areas, but perform at an average level on the traditional measures do not get admittance into the support programs for gifted children (Pierson, Kilmer, Rothlisberg and Mac Intosh, 2011). Renzulli (1978) emphasizes that one should pay greater attention to the interaction between the three areas in identifying children (above average ability, creativity, and motivation).

Work by leading gifted education research scholars like Renzulli (1994), Torrance (1984), Sternberg (2005), Gardner (1994), and Bloom (1985) have called for a more comprehensive and holistic definition of giftedness and for a more robust method of identification of gifted children instead of relying only on academic achievements. Many educational programs and school districts use a wide variety of assessments to identify gifted children. Unfortunately, the majority of these programs and school districts still rely on the traditional IQ tests to identify the gifted children and we run the risk of not identifying all the gifted children. Many districts do use multiple assessments to distinguish the gifted children. The most commonly used multiple measures are: Academic achievement tests, cognitive assessments, parent, teacher and peer nominations, and teacher checklists.

Renzulli, (1994) acknowledges the limitations that various school districts and

educational institutions face (e.g., funding stipulations and assessment limitations). His suggestions for making the identification process more robust and appropriate involves some changes to the assessment strategies, analysis of data, and funding formula. He suggests that academic competence assessments have to be aligned with state or national standards. There are a wide variety of instruments that measure giftedness and they are more robust and comprehensive compared to what was available few years ago. However, it is very expensive to administer a whole battery of tests to identify gifted children. Pierson, Kilmer, Rothlisberg and McIntosh (2012) in their detailed report about the use of brief measures of intelligence in schools to identify gifted children, clearly discuss the pros and cons of using a brief measure of intelligence as an initial assessment. They highlight the importance of using brief measures that are reliable and valid for the purposes for which they are used.

Identifying and supporting the education of gifted and talented children continues to be an issue in many countries. India has a history of identifying the exceptional children. However, the definition of exceptional children has changed over the years. Raina (1984) explains that initially exceptional children were those who demonstrated excellence in appropriate service-oriented and social justice directed behaviours. Such behaviours were considered as being an integral part of the education process. With the influence of the western countries, the definition of excellence changed and more emphasis was given to cognitive excellence. The identification process was also similar to an assembly line process that was successful in identifying mediocrity versus identifying and supporting excellence (Raina, 1984). Nambissan and Batra (1989) are vehement in their argument for coming up with multiple measures of intelligence such as multiple intelligence measures and having a more global definition of excellence.

The Indian government introduced several programs to identify excellence and foster it (e.g., National Talent Search (NTS), Navodhya Vidyalaya, Cultural Talent Search program, Bharatiya Vidya Bhavan's Rajaji Vidyashram, Inter-University Center for Astronomy and Astrophysics). However these programs were not very successful because of flawed identification process, efficacy of the program, and societal discord about the program (Raina, 1984).

Gifted and talented scholars call for programs offered on a regular basis to meet the needs of the gifted and talented youth. Raina (1984, 1988) and Srinivas (1988) point out in a country like India, much emphasis has been placed on providing educational opportunities for all children, while not much has been done for educating the gifted and talented, which may have resulted in the "brain drain" phenomenon and increase in the apathy of the talented youth who were discouraged and did not quite succeed.

The purpose of the present study is to develop an appropriate initial identification measure for identifying gifted and talented youth in India. As alluded to in the literature, there is a lack of relevant and culturally appropriate tools to assess the children from impoverished backgrounds. One of the main concerns has been using assessment strategies that are not culturally relevant. The current study will develop an initial assessment system based on the local curriculum standards. This assessment is to serve only as a preliminary identification system. The study will also assess differences in the performance of two groups of children (one group who performed well in school assessments and the other group who did not do as well in the school assessments, but the teachers thought they had true intellectual potential) in the preliminary identification assessment. This will enable the researchers to provide some answers to the question, "Is giftedness related to academic success?"

Methodology

Subjects

Twenty-four children attending a school run by a non-profit organization in the outskirts of Chennai, India participated in the study. The researchers asked the teachers to nominate two groups of children. The first group (n=12) was those whom they thought were extremely intelligent and performed well in school assessments. The second group (n=12) was the children whom they thought were intelligent but the children did not do well in school assessments. The children were recruited from third, fourth, and fifth grades. Three trained researchers administered the assessments.

Instruments

Researchers used the Academic Competency Checklist (ACC) (Jambunathan & Jayaraman, 2011) as the preliminary measure. This checklist was based on the Central Board of Secondary Education standards. The social emotional section was based on the characteristics of gifted and talented children as proposed by Renzulli (1978). The checklist started for children in the third grade and went up to grade seven. The checklist comprised of five sections: Mathematics, Reading and Language Arts, Science, Social Studies, and Social Emotional Development. The Mathematics section comprised of questions in number and operations, measurement, geometry, data analysis, and algebra. There were a total of 85 questions in the Mathematics section. The Language Arts section comprised of reading, writing and elements of language. There were a total of 39 questions in the Language Arts section. The Science section was comprised of Life sciences, Physical sciences and Earth sciences. There were a total of 18 questions in the Science section. The Social Studies section consisted of 14 questions. The Social Emotional Development section consisted of 41 questions. The items were scored as "Yes" or "No" based on whether the children answered the questions correctly or not.

Procedure

The researchers recruited the children from their classrooms and the assessment was done in the resource room. The questions were posed to the children in English. When the children had trouble understanding the questions the researchers translated the question in Tamil (the local language) for the children to respond. The researchers asked the children questions verbally, or gave them opportunities to respond to questions either in the written or verbal form. The researchers also observed the children during the day to complete the social emotional section of the checklist. The researchers stopped assessing the children if they failed to answer five consecutive questions. The entire administration took about 30-45 minutes for each child.

Analysis

The ACC was given to professors of education (n=4) with interests in the gifted and talented programs to check for content validity. The professors were in agreement about the content of the instrument and the purpose for which it was being used. Descriptive analysis and t-tests were done to determine if there were any differences in the performance of the two groups of children on the ACC.

Results

The mean scores for the performance of both groups of children in the ACC are presented in the table below.

Table 1: The mean scores for the performance of both groups of children.

Section	Children performing well in school (n=12)		Children not doing well in school (n=12)	
	Mean	***S.D.***	***Mean***	***S.D.***
Mathematics (85 questions).	38.28	1.42	38.31	1.14
Reading and Language Arts (39 questions).	12.88	1.87	13.73	1.72
Science (18 questions).	11.62	1.13	10.87	1.64
Social studies (14 questions).	5.08	1.02	5.91	1.84
Social Emotional Development (41 questions).	22.35	2.09	40.51	4.73

The above table shows the average scores on the ACC of children performing well on school assessments and those not performing well on the school assessments. The results suggest that there were significant differences in the performance of the two groups of children in the Social Emotional Development section of the ACC (t=8.43, $p \leq .001$). There were no significant differences between the two groups in the other sections of the ACC.

Discussion

Analysis of the results showed that the children performed well for their age on the sections that were concrete concepts (e.g., Numeration and computation in the Mathematics section, Reading, Elements of language in the Language Arts section, Earth sciences, Physical sciences, and Life sciences in the Science section). The children did not do well in the sections that involved abstract concepts (e.g., Algebra in the Mathematics section), concepts that involved independent thinking (e.g., Writing in the Language Arts section), and social interaction and strong sense of self and social justice in the Social Emotional Development section of the ACC.

One of the reasons children might not have done well in certain sections is because the teachers in the early grades do not teach a wide variety of concepts. They tend to teach to the tests and examinations. As a result, children are not exposed to a wide variety of topics. Teachers also tend to spend more time on topics that are concrete and tangible. They are not very comfortable dwelling on topics that are not comfortable for them or that would put them in a situation where they would not know the answers to the questions the children might ask. This results in a very narrow teaching regimen.

Another reason for the lack of strong performance of the children in the abstract and social portions of the scale is that the teachers are not trained to teach in a developmentally appropriate manner. Altering teaching strategies to meet the needs of each child is not a common practice in India. As a result when children's skills tend to deviate from the norm, teachers struggle to accommodate, to challenge and to scaffold them. The majority of the teachers try to get the deviant children to fit in with the norm, instead of engaging them in areas that interest them and supporting their development.

The results also showed significant differences between the two groups of children taking the ACC in the Social Emotional Development section. The group of children who did well on school assessments scored significantly lower than the group of children who did not do well on school assessments. One of the reasons there was significant differences in the Social Emotional section was that the former group of children tended to be risk averse and conformed to rules and expectations. They did not question or challenge the teachers' authority or teaching. Traditional Indian childrearing practices and classroom practices emphasizes children being respectful to teachers and not to ask questions that would be disrespectful to the teacher. Teachers tend to favour the children who are passive recipients of information. So when children get positively reinforced for their passive behaviour they tend not to indulge in experiences that might get them to challenge themselves or the authority figure. This frequently leads to low self-esteem and a feeling of isolation among the peers. Hence the lower scores in the Social Emotional section of the ACC.

However, the group of children who did not do well in school assessments seemed to thrive on engaging in stimulating discussions and working collaboratively with their peers and teachers. They also frequently sought additional resources outside of the traditional norms to aid in their learning. These behaviours were similar to the unique skills described by Renzulli (1978) for gifted and talented students (e.g., being a leader, having superior problem solving skills, being good at mediating, being creative, not being averse to risk, and having a curious mind). This type of behaviour is not positively reinforced or embraced by most of the teachers or the society. In many instances children who have asked questions that challenged the teachers were considered as trouble makers.

Results of the study can be used to educate the teachers about the importance of stepping out of their traditional teaching practices and expectations of students. Clearly, the above results demonstrated that the two groups of children were performing at the same cognitive level. However, the latter group was far superior in their social emotional development. Teachers need to think about redefining their role from that of being a provider of knowledge to facilitator of learning. They need to start thinking and discussing about empowering the children to take control of their learning. Teachers should serve as educational facilitators to lead the children through a challenging and gratifying journey of educational endeavours. This will result in the children having a positive self-esteem and a willingness to take on challenges. This is especially important when the educational system in India is changing for the better, with less emphasis on examinations and making a move towards a universalized curriculum. The society as such has moved away from perceiving engineering and medicine as the only career options. Encouraging the teachers and children to work hand in hand to discover various ways of teaching and learning will result in meaningful learning experiences which in turn will result in creating leaders and innovators of the future.

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Perceptions of Music Teachers Associated with Musically-Gifted Primary School Graduates Seeking Entry to an Elite Music High School in Sydney, Australia

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Abstract

Current selection test procedures for any higher-learning program rely on evidence of attainment in a specific domain (Gagné, 1995; Boyle & Radocy, 1987; Subotnik, & Jarvin, 2005). Pertinent to the assessment and selection of gifted young musicians for elite programs is the notion of obvious talent being due to all or a combination of factors of ability, practice, opportunity, personality, and/or passion and as such presents complex issues around the question of skill maintenance and/or skill loss (Simonton, 2005). This paper outlines the issues surrounding testing for the selection of musically-gifted primary graduates to elite secondary school music programs. A single case study of initial findings of a multi-phase research project where past and present music teachers reflect on entry test experiences is presented. The data collected through an online questionnaire and a semi-structured interview offers a representative framework for the investigation. The main purpose in gathering this narrative data is to track and gain understanding of entry test processes from 1980 to 2014 at a specialist music high school in Sydney, Australia. Results to date demonstrate an evolving test design model characterized by pedagogic influences, shifts in student recruitment emphasis, and innovative curriculum change. Strategies for further refinement of a process for high stakes selection and placement that are both fair and reliable are at the core of the subsequent phases of research and will be explored in this paper.

***Keywords*:** Ability; music aptitude and assessment; entry test procedures; teacher perceptions.

Introduction

In 2013 music teachers associated with an Australian specialist music high school since the mid-1980s, were invited to complete an online questionnaire about their opinions on aspects of entry-test procedures to select from some eighty applicants, around thirty musically-gifted primary graduates for placement into Year seven (12-year-olds, for the first year of Junior High). This phase of the study was used to inform the semi-structured recorded interviews that followed. The responses revealed a general consensus that a mix of both subjective and objective measures, despite the impact of change, should be at the core of the testing process. Elements such as shifts in direction, curriculum, demographics, applicant numbers, and the introduction of a junior vocal stream in 2012 underpin the need for appraisal and review.

The impact of music teachers' perceptions of strategies used to identify and select gifted young applicants is presented in this paper through the story of one of twelve case studies of music teachers who have been associated with the entry test during this period of time. Bresler (1992) notes that interviews, the use of archival materials, and immersion in the case, have long been important tools in music education, performance, and musicology. Within a multiple cross-site application of narratives unique "vignettes of dynamic moments" can be provided (Bresler, 1992, p.71).

The case study reports on the processes undertaken to develop the topics and sub-topics of both the questionnaire and semi-structured interviews. It would appear that while the main ethos of the

school, embedded in pedagogic philosophies remains, the entry-test strategies and tools have evolved, been modified, or changed. Further, the case study participants reveal aspects about the nature of change in this context:

> Type and abilities of incoming students over this period have not changed but perhaps what we are looking for, has [participant 1]
> The focus is enrichment rather than talent….as music teachers we engage with the whole person, the whole thinking, the whole body [participant 8]

It is expected that findings from the complete study can assist in forging crucial links between policy and practice in the domain of music education.

Methodology

In order to track and define the purpose for entry testing to a specialist music high school, online questionnaires (Appendix 1) and follow-up semi-structured interviews based on sample questions (Appendix 2) were conducted with past and current music teachers associated with an Australian specialist music high school. Nine of the ten participants who completed the questionnaires agreed to be interviewed. Approximately 40 minute face-to-face semi-structured interviews were conducted to elicit the music teachers' perceptions about entry test tools, change, and criteria. The resulting narratives or stories offer a dynamic form of communication.

The case study here is one of ten wherein the intended phenomenon is bounded and linked to the data collection. Being a finite number of case studies, categorization of the phenomenon as a case study is allowed and therefore avoids some of the practical issues of participant availability, external deadlines and manageability of data if a boundary is not established (Torrance & Stark, 2005). This paper presents background information on the construct of both gifted and talented, general and music specific identification, and presents a case study of one music teacher noting the contexts and the impacts of change on entry-test procedures.

Gifted behaviour

This section examines the role of the development of gifts and talents as a complex component in the identification of musical ability and provides the background to the study. Persson (2009) refers to musical behaviour as most likely being both general and specific. He suggests that musical giftedness is beyond doubt, multi-dimensional. Simonton (2005) posits that while forms of giftedness are domain-specific, genetic components may be generic. Like Persson (2009), he suggests that musical behaviour is both general and specific in referring to the two interrelated perspectives of emergenic inheritance and epigenetic development. Simonton (2005) outlines the criteria of the categories conceived as "additive" and "multiplicative dimensions of giftedness" (p. 279). An additive gift such as perfect pitch is easy to identify early in the schema of development onset. It follows that the identification problem becomes more difficult for complex, multiplicative types of giftedness. While this paper does not have the capacity to fully encapsulate his outline of optimal forms of giftedness being subject to change and instability within an additive (development aligning with first genetic component) or multiplicative (development beginning with the last genetic component) model, the Simonton multi-dimensional theory (2005) underpins principles of identification in the context of this study.

Rating scales & observation

The focus for the frequency tables within the questionnaire reported on in this phase of the study was specific to music ability and entry-test content. The questionnaire was designed and delivered through email with a link to *Survey Monkey*. The notion of musical ability is perceived differently among people and is not easy to define (McPherson, 1997). Both musicians and non-musicians concur that music aptitude is multifactorial, categorized, by pitch and rhythm (McPherson, 1997; Hallam & Shaw, 2003). The literature reports the use of both research-based published rating scales and inventories (Haroutounian, 2000; Hallam, 2006, Hallam & Shaw, 2003) and in-house school

rating scale templates and checklists for gifted identification, with few including adequate assessment tools in the arts (Mönks & Pflüger, 2005; Haroutounian, 2000; SADECD, 2011).

Hallam & Shaw (2003) found that the ability to sing or to play an instrument was the category most shared by both adult musicians and non-musicians in rating their perceptions about musical ability in young children. Personal traits were rated high amongst the musicians from the list of 19 criteria to identify musical ability.

Similarly, Haroutounian (2000) in the course of her research in developing the *Indicators of Potential Talent in Music Inventory* found that the community, in their perceptions of the traits indicative of musically-able children, considered some general behaviours such as "sustained interest" and "self-discipline" as more important than some that were domain specific (p. 9).

Akin to the research of Haroutounin (2000) and that of Hallam & Shaw (2003), sections of the questionnaire reported on in this paper, were designed to elicit a respondent's opinions about generally-accepted criteria of musical ability in the context of purposive selection as reported in this paper.

Hallam (2006) reports that the Hallam & Shaw 2003 study in developing rating scales for identifying musical gifts revealed that from the sample cohort of both non-and professional musicians, the latter were in strong agreement that "communication and being able to play in a group", "emotional sensitivity" and the "organization of sound" as the skills crucial to the highest level of expertise (pp.100-102).

Musicians and other groups alike shared the category of "being able to sing or play an instrument" as "the largest response", being especially high among "children who did not take part in extracurricular music" (p.101). Musical ability as a genetic factor was not a general conception among the sample cohort.

The experienced music teachers reported upon in this paper, rated "high music aptitude" and "high music ability" and "high aural test scores", as important criteria in considering the identification of musical potential. Further, criteria such as "music aptitude test"; "aural memory exercise" and "audition" from the questionnaire were ranked as of highest importance as entry-test tools by the respondents.

For the purposes of this study, additional labelling based on the Munich Model of Giftedness (MMG, Heller, 2004) was applied. Heller (2004), like Simonton (1999) posits that identification is only effective when considering individual developmental and learning processes alongside environmental influences such as social settings.

In the Heller MMG model (2005) "musicality", a talent factor (i.e., a "predictor" or domain) transitions through "moderators" (or catalysts) towards "music", a criteria variable (pp.149-151). Some twelve environmental and six non-cognitive personality characteristics were considered as moderating factors that may influence success or non-success.

Certain of these have been adapted as labels for the study reported on in this paper to assist in the differentiation and the classification of the criteria emerging from both the teachers' questionnaires and their interviews. For example, "music specific" factors (classified either as 'environmental' – E and/or 'innate' - I) and "general suitability" factors (as either "social" – S and/or "potential" - P and/or "achieving" - A) provide factor differentiation. In addition, the term "suitability" is used to describe an applicant considered to be appropriate for the context of the school reported on in this paper.

There was label nomination overlap but overall the questionnaire reported the responses with 13 criteria as *Developmental Environmental* traits and seven as *Developmental Innate* traits. *Suitability Social* traits were six in number, *Suitability Potential* traits were nine, and *Suitability Achievement* traits were five. Further classification was applied to the criteria listed above where most respondents rated "high music ability" (I/P), "high aural test scores" (E/P) and "high music aptitude" (I/P) as high. Interestingly, the respondents rated the criteria "interest in music competitions" (E/S/A), "family music background" (E/S) and "interest

in improvising" and "leadership qualities" (E/S/P) as low.

Gifted musical behaviour

The literature reports the impact of certain conditions relating to exceptional musical behaviour (Shavinia, 2010; Subotnik et al., 2011; Haroutounian, 2002; Rados et al., 2003). For example, ability and interest/commitment, coupled with an intrinsic and extrinsic motivation for performance, are necessary for giftedness but not sufficient for development of special talent. Further, the percentage of eminent adults is less than that of musical children with gifted potential.

Finally, while particular age-sensitive developmental periods impact on the gifted to talented process, interrelated factors of musical aptitude remain an important causal factor in outstanding long-term achievement in music (Shavinina, 2010; Simonton, 2005). Research addresses the issue of the prodigy and superior musical performance in adolescents and adults (McPherson, 1997; Shavinina, 2010) yet there has been little investigation into issues around the transition from novice to early practitioner as in the case of the musically precocious primary school graduates into specialist high school music programs.

Like Shavinina (2010), Rados et al., (2003) in their work with students aged between six and twelve years across five specialized music schools in Belgrade, concluded that certain critical agents were at the core of success of formal instrumental learning. They nominated personality motivation as a driver towards success. For example, being disciplined and organized, emotionally stable, relaxed, independent, and self-confident were personal and emotional traits that characterized students with high- level playing ability. It would seem that the participant data reported upon in this study reveals much of the same sentiment for the post-threshold cohort of 12-year olds.

Measuring musical ability

Haroutounian (2000) and others note that while music aptitude measures musical potential, musical talent is realized through performance, which she concedes, is most commonly assessed through audition. Notions of giving "shivers up the spine", (Haroutounian, 2002, p. 7), to describe the effect of a child's exemplary performance is echoed in the stories of the adult participants.

> We know talent when we see it! [participant 3]
> It is easy to spot the child who has it all…. [participant 10]

Experienced examiners, like concertgoers, easily agree on outstanding performances (Subotnik & Jarvin, 2005; McPherson, 1997). However, in referring to high-stakes assessment procedures linked to the need to compare musical competencies, Kimpton & Harnisch (2008) suggest that both holistic or analytic methods and comparability of judgment are required. They further posit that 'tightly specified criteria' and 'inter-rater reliability' (pp. 63-64) are crucial elements in high-stakes assessment contexts. It is reported that the two main purposes for music assessment are for recruitment and diagnosis (Kimpton & Harnisch, 2008) where the former is most often gauged by performance (Boyle & Radocy, 1987; Kimpton & Harnisch, 2008; McPherson, 1997).

The literature supports the view that over-reliance on skills acquisition alone to identify and place gifted young musicians into music academies is contrary to the intent of published policy, practice, and theory (Boyle & Radocy, 1987; Gagne, 1995, 2011; McPherson, 1997; Mönks., & Pflüger, 2005; NSW DET, 1991, rev. 2004; SA DECD, 2010 updated 2011).

The interview

This section refers to the interview, *Phase 1b* of the study reported upon in this paper, where the same named and nominated adult stakeholders were invited to participate in individual semi-structured recorded interviews based on sample questions (Appendix 2). While each interview was shaped according to the sample questions participants extended their opinions towards general factors not associated specifically to the main topic of the entry test. Some of the participants interviewed considered their music teaching at the specialist music school as a "privilege and a joy" (Participant 4). They mostly found strategies of acceleration, enrichment, and compacting to be useful to the spiral

curriculum model for these gifted young musicians. John (a pseudonym), one participant in the case study that follows, noted that "whole cohort" acceleration, a practice introduced recently, needed further review. He also commented that his early music teaching experiences, which began in a country high school, were not enjoyable and it was only in the context of this school that he felt the passion of his vocation. The whole data set of the collective case study of music teachers is in preparation for analysis and eventual publication.

Table 1 shows the seven interview topics, which were assigned sub-topics arising from the questionnaire responses.

Table 1: Summary of Interview topics and their sub-topics.

Question type	Number of sub-topics
Topic 1: Participant details	6
Topic 2: Gifted construct	3
Topic 3: Current involvement	6
Topic 4: Test	11
Topic 5: Changes over time	8
Topic 6: Successful candidate/student characteristics	6
Topic 7: Other	10

This paper reports John's story in response to two topics and their sub-topics. The interview began with John answering:

Can you tell me a little about your background as a music teacher? [Interviewer]

He answered this question directly which is reported here accordingly.

> I am head music teacher here full time and have been for some years. Actually I started here in 1986 one day per week as a 'casual'. This became permanent part-time then full time. I also am certified to teach Mathematics which I do from time to time. I have participated in the design, implementation and facilitation of the entry tests since the mid 1980s. I am on the selection panel.

The data for sub-topic "gifted traits in Year seven" from Topic 3, "current involvement" gives a snapshot of how John caters for the differences between the students he sees during a performance workshop (PW) lesson.

> The main divider is superior performance, beyond age and not specific to gender… more so in keyboard, also violin…you could call them the 'stars' - compared to mainstream – i.e. the schools I taught in years ago, when I first started teaching. In catering for differences in PW I feel it is important to avoid making individual comparisons – more helpful to 'compare across pieces' discuss the difficulties that arise in the repertoire - this is more relevant to these students – to get feedback on aspects of their playing of a piece, or section of a piece 'facts they take to their practice and to their teachers'…

John spoke at length about Topic 4 "Test" and the sub-topic "Workshop".

> In the 1990s a university music education consultant came and helped us devise the test. For 2 years he led the diagnostic workshop activities; the music staff would observe the kids; we needed to come up with a profile for each student, a mark even – and with about 12 students in a circle playing xylophones set up in pentatonics with lots of echo playing; we would write down comments then work out marks according to some rubrics later, together; at times there was individual playing and singing; the xylophones were dropped from the test….in late 1990s; I think – it was considered that the keyboardists had an unfair advantage, using the xylophones. There have been a 'number of changes over the time' – different things are evolving all the time…it

> really depended on the particular group (of kids) and what we needed at the school. We will be losing our good brass players soon….
>
> I think the workshop did become more prescribed – still with a couple of teachers observing and then taking it in turns to facilitate some activities – the creative activities such as rhythm clapping in simple time and compound time - we needed to increase difficulty to discriminate: 1 bar of 4/4 and 1 bar of 12/8 (they found this difficult) - echo clapping and pitch dialogues, question and answer – singing some 5 notes - pentatonic to see if student could hold pitch - 'soh-me-lah-soh –me-soh-soh'; simple folk song material – group then individual memorisation of 4 phrases – we dropped this component recently – difficult to quantify.

For Topic 6 "traits typical of the successful candidate" John gave a list that could be classified as "innate", "developmental" and "personality" traits.

> Students with high level instrumental acumen and who could maintain this after entry and beyond; also with aural ability as shown up in the Gordon tests results; 'good music reading skills; also being fairly stable seems to be important - emotionally stable' - they seem to fair better at our school – perhaps they are able to make the transition more easily from primary school…….our school isn't easy – it is a music performance school, elite, with a dual purpose – having all the demands of a good academic high school and then there's the performances, concerts - some activities here are unique within the state. Also children with better than average social skills tend to fare better in our school and can progress quickly, if they are alert, bright and passionate.

For the sub-topic 'non-successful traits' John spoke briefly, mainly about performance.

> Students displaying average executant ability; nothing self-expressive about the playing, maybe enthusiastic in other subject areas but tend to become rather stuck in their progress as a performer; also of 'average musical intelligence and a 'kid who does not seem to carry the passion through the six years'.

For the sub-topic "Other", John focused on the creative aspect that was part of the workshop component, a tool considered important more so in the past than currently.

> The creative task we used to have had three phases – 'play/improvise/write'. These phases only applied to the older applicants, other than for year 7; especially the ones wanting to enter year 11 – they had to have advanced musicianship levels – notation skills to get up to the standard of our year 11s. So in a group with the teachers the activity comprised an 8-16 bar melody in compound time for improvising on the instrument – then play individually – then write what you created; the year 7s would devise a movement/sound improvisation in pairs modelled by the teacher in simple time. Of the five components of the original workshop not many remain; we haven't lost them fully – I think they are embedded in other tools.

For sub-topic "Historic" within Topic 5 "Changes over time", John gave a snapshot of the test profile over at least a decade.

> I remember in the late 80s - that early audition asked for' only two pieces'; this has become more prescribed and has 'expanded in the number of components - two contrasting pieces, technical (scales, sight reading) aural memory singing exercise at start and to repeat at end (audition); audition was the only component but now is the primary thing'.

Once again he mentioned the "old" workshop and the use of some Dalcroze-styled techniques. Azzara, (1998) concurs with the Dalcroze applications of practical and experiential activities framed through movement, solfege, and improvisation. Music thinking skills linked to improvisation he

posits, rely on techniques that impact on the achievements of young instrumentalists. John has completed many Dalcroze workshops in Sydney, Australia and Geneva, Switzerland and has completed the examination for the Swiss Institute's certificate which allows him to practice associated "movement-sound" activities within his classroom music practice.

> The workshop of the 1990s was changed a bit – we used more Dalcroze-based activities - 'movement/soundscape activities in groups - perhaps an influence from the performing arts high school collaboration'; that's when more selective and specialist schools came on the scene here.

A post-data analysis of the *Phase 1* material, adapting the Framework Thematic Analysis (FTA) model of Ritchie & Lewis, (2003) is currently underway assisted by considerations of Heller's Munich Gifted Model (MGM, 2004) supported by the Simonton (2005) gifted-identification schema which, while contributing to the field, confirm the complexity and problems associated with identification and talent development.

The importance of the study

The importance of the study is linked to the identification of musical giftedness in the context of a multi-factorial approach. Persson (2009) suggests that identification is underpinned by objective and general factors on the one hand and subjective and individual factors on the other. He concurs with Walters, (1990) in that the core skills (pitch and rhythm) are intrinsic to psychometric tests (e.g., Gordon's Advanced Measure of Music Audiation, 1989) and that the key skills (voice/instrument performance; composing/arranging and conducting) differentiate applicants. The potential impact of results from this proposed study not only has the capacity to create a purposeful platform through a definition of "needs and supply" as considered by the music teachers interviewed but also to recommend a defined, balanced weighting of objective and subjective entry-test components which may go some way towards addressing issues of a fair and equitable process.

Potential significance

Today's music students, it is internationally recognized, gain entry to their study through an entrance examination not grounded in test theory or psychometrics (Wolf, Platz & Kopiez, 2012). Additional measures for specific subject areas nominate screening, the more objective stage taking in a combination of strategies to identify potential (Haroutounian, 2002).

Waters (2010) states that standardized tests, norm-referenced by design mostly measuring aptitude and achievement are created to make comparisons between students along specified measurements. Gordon (1999) found that music aptitude, like general ability, has a normal distribution meaning that 2% of the population has high music aptitude and 14 % having above-average music aptitude.

Assessment of musical attainment, typically individually orientated, is considered a subjective measure. Duerksen (2011), Haroutounian (2002), and McPherson (1997) report that high-level music aptitude (citing the Gordon tests, 1985, 1991) and high- academic grades benefit those music students enjoying success beyond high school. While a Year 7 cohort such as that reported on in this study would be considered musically gifted, not all students are equally so.

Phase 2 of the research refers to the primary school gradutes' entry test results on Gordon's objective aural test – the AMMA (Advanced Measures of Music Audiation), (1989) demonstrating individual musical acumen (pitch and rhythm) and Gordon's Iowa Test of Music Literacy (ITML), (1970, rev. 1991) level five demonstrating individual music literacy (pitch and rhythm). *Phase 3* is the administration of the ITML level six, after entry, demonstrating individual music learning and progress. The study reported upon in this paper will compare the ITML tests and correlate them with the AMMA results. There is the suggestion that such test results offer a degree of predictability and further, have the capacity to confirm superior ability and skills, and to identify at-risk students within

the first year of music high school. High results on the AMMA and both of the ITML tests coupled with a high-level audition could be defined as essential criteria for a candidate having the capacity to maintain a successful profile at a music specialist high school.

Conclusion

In seeking to understand the development of musical ability and predictions for ongoing success, the literature refers often to the opinions and experiences of leading professional musicians and music educators. According to music professionals, Hallam (2006) noted that certain social and developmental elements of musical ability were crucial for professional musicians. The experienced music teachers surveyed and interviewed for this study concur to generally accepted criteria in the identification of musically gifted youth. However the rationale for further investigation as reported in this paper is based on not only the context of high stakes purposive selection but also on the typology of changes that have occurred on site. For John, while the perceived musical ability of a gifted primary school graduate taking up the challenge of advanced music training has remained unchanged over time, the ways of defining and of identifying that ability is linked to the purposeful and evolving nature of circumstances. He concedes that while musical aptitude as measured by high levels of aural ability in the comprehension of key competencies such as pitch and rhythm, it is the passion for music and high-level performance that more closely defines the successful applicant upon exit.

The trajectory for the development of musical gifts and talents is subject to a plethora of conditions and traits making predictions for ongoing success fragile. For entry to the school in the context of the study reported on in this paper the audition seems to have been of primary consideration. The case study reported here significantly supports the need for the inclusion of a balanced measure of both subjective and objective tools underpinned by an ever developing body of research dedicated to the refinement of gifted theory and schema in the music education arena.

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Felicity Andreasen, a doctoral student at the Sydney Conservatorium of Music continues to combine the reality of teaching high school music in research contexts. She currently teaches at the Conservatorium High school in Sydney. Her publication with Dr. John Geake (SCU), entitled 'musically gifted students in the first year of secondary school: identification and curriculum differentiation' (1998, NSW AGT) led her into the then controversial field of gifted education which underpins her reexamination of the gifted theme in the domain of music education. Her current interest has expanded into a study based at the capstone of music development where the focus is a case of musically gifted applicants to specialist music high schools.

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Appendix 1

Adult participant Questionnaire

Title: Musically gifted youth: testing for entry to specialized music secondary schools.

This questionnaire was conducted online (Survey Monkey) with nominated and named adult stakeholders (past and present music teachers).

- Complete this questionnaire only if you have participated in the design and/or implementation of testing procedures for advanced music training.
- Please answer questions honestly
- Please answer every question
- Check the box or indicate the number that best represents your response.
- This survey is divided into three sections:

Question 1: What language do you mainly speak at home?

- ❑ English
- ❑ Spanish
- ❑ Chinese
- ❑ Russian
- ❑ Other (please explain)

Question 2: What is the context in which you have taught music? You can check more than one box:

- ❑ Private studio
- ❑ High school general music
- ❑ High school elective music
- ❑ High school specialist music
- ❑ In-house performance
- ❑ Public performance
- ❑ Post-secondary
- ❑ Music industry
- ❑ AMEB examiner
- ❑ HSC Examiner
- ❑ Other (please explain)

Question 3: When were you associated with the entry test at the Conservatorium High School in the following years: (tick any number of boxes that apply)

- ❑ 2006-2013
- ❑ 2000-2005
- ❑ 1995-1999
- ❑ 1990-1994
- ❑ 1985-1989
- ❑ 1980-1984
- ❑ Other (please explain)

Question 4: 1n which of the following aspects of the entry test did you participate (you can check more than one box):

- ❑ Task design
- ❑ Workshop
- ❑ Implementation: modelling a task
- ❑ Implementation: Scoring
- ❑ Implementation: Grading
- ❑ Recommendation for entry
- ❑ Other (please explain)

Question 5: How would you rate the inclusion of each of the following factors for entry of Year 6 applicants to the Con High (rising scale 1- 5)

- ❑ Interest in improvising
- ❑ Confidence at audition
- ❑ Confidence in performing

- ❑ Perfect pitch
- ❑ interest in music activities at school
- ❑ Interest in music outside school
- ❑ Interest in performing
- ❑ Perfect pitch
- ❑ High scores on aural test
- ❑ High scores on music aptitude test
- ❑ A team player
- ❑ High scores on music achievement test
- ❑ Informal training
- ❑ Interest in writing about music
- ❑ Family musical background
- ❑ Leadership qualities
- ❑ High music ability
- ❑ Interest in making music at school
- ❑ Interest in making music at home
- ❑ Average academic ability
- ❑ Average music ability
- ❑ Interest in music competitions
- ❑ Formal training
- ❑ High academic ability

Question 6: How would you rank the inclusion of the following items on an elective entry test for year 6 applicants to the Con High (rank 1 - 8)?

- ❑ Music aptitude test (pitch and rhythm)
- ❑ Music achievement test (pitch and rhythm)
- ❑ Music theory
- ❑ Audition
- ❑ Aural memory
- ❑ Sight reading
- ❑ Improvising
- ❑ Moving to music

Question 7: In reference to Question 6 please state why you have ranked an item the highest (1)
(Comment)

Question 8: In reference to Q.6 please state why you have ranked an item the lowest (8)
(Comment)

Question 9: How can we improve entry test design?
(Comment)

Question 10: Please tick the box and provide your preferred contact details if you are willing to participate in a short 20 minute recorded interview at you convenience

- ❑ Yes
- ❑ No

End of Questionnaire

Thank you for completing the questionnaire.

Appendix 2

Sample Interview Questions conducted with adult stakeholders (current and past teachers associated with the Con High):

1. First could you tell me about your background in music teaching?
2. Do you have particular views/philosophies about music teaching?
3. What do you feel about giftedness in general and current gifted and talented models?
4. How do these models apply in reality in the context of the Con High?
5. In relation to the entry test (at Con High) how would you describe your main responsibility?
6. How would you describe the key components of the test
7. Do you think music pedagogies (Orff; Kodaly; Dalcroze) have influenced the test design?
8. Can you comment on any changes you may have observed in the test components?
9. Do the test components identify the musical strengths of applicants?
10. In your opinion how does the test design identify the musical weaknesses of the applicants?
11. Tell me about your involvement with teaching the current year 7 students;
12. To what extent are the items on the test subjective measures?
13. To what extent are the items on the test objective measures?
14. What items successfully identify the better students?
15. In your opinion does the test design meet the demands of differentiating among applicants?
16. How would you describe the successful Con High candidate; and those that would not make the grade?
17. In your opinion how would you describe the successful Conservatorium High School student on entry at year 7?
18. In your opinion how could you nominate some to be more gifted than others? How do you cater for the differences?
19. Is there anything you would like to add; what would you want to say to test designers today?

Young Gifted and Working-Class: Issues Arising from Case Studies of Families with Gifted Children

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Abstract

The article reports findings from a small qualitative investigation into the perceptions of giftedness held by four working-class families in the northeast of England. Each family had a child identified as gifted in England's national program for gifted education. These findings include: intense hostility toward those of their neighbours they despise as welfare-dependent; the dominance of entity theories of giftedness; how the children carried their parents' vicarious ambitions; lack of interest in general social and educational equity; negative experiences of the national program for gifted education; and, low sense of actual parental agency in relation to schooling, though potential empowerment arising from the children's high attainment. The findings are discussed in relation to policy formation and theorizing about giftedness and social reproduction.

***Keywords*:** Theories of Giftedness; gifted education; working-class; case studies; Britain.

Introduction

This article reports evidence from a small scale study of four working class families, each with a child identified as gifted, who experienced the implementation of England's National Program of Gifted Education, mediated through the National Academy for Gifted and Talented Youth (NAGTY) from 2002 - 2007. We are not, of course, proposing to generalize from these four case studies. Our aim for this article is to draw on the rich descriptive accounts of family dynamics so as to raise questions about the existing research on giftedness, and yield ideas which may be used to contribute to theory building and policy formation.

There were two fairly unusual features of this study: the working class sample, and the focus on the families as a whole. Few empirical investigations of giftedness have used working class samples, and few have attempted to understand giftedness as constructed by families, rather than using the individual student as the unit of analysis.

Social class in Britain

Social class remains a most significant framework for understanding everyday life in Britain, despite populist claims by Prime Minister Thatcher in the 1980s that there was no such thing as society, and by Prime Minister Blair in the 2000s that Britain had become entirely middle class. As the social historian, Selina Todd (2014) said:

> Class has united and divided Britain since the industrial revolution. United, because class is widely accepted as a quintessentially British fact of life, a heritage and language we can all share. Divided, because class is no romantic tradition or amusing idiosyncrasy, but is produced by exploitation in a country where a tiny elite has possessed the majority of the wealth....The working class was composed largely of manual workers and their families - miners, dockers and steelworkers, and also domestic servants - and lower grade clerical workers like typists, secretaries, office boys and messengers. They constituted three-quarters of the British people until 1950, and more than half as late as 1991. Then there were the large number of non-

> manual workers - nurses, technicians and higher grade clerical workers - who chose to identify themselves as working class by virtue of their family background and because they believed that working for a living meant they had more in common with other wage earners than with employers or political leaders. Working class, therefore, people formed the majority of British society throughout the twentieth century and into the twenty first. (pp.1-5)

Despite this, Todd pointed out that the working class as a whole was not an undifferentiated monolithic mass, but comprised highly diversified groupings.

> "Class is a relationship defined by unequal power, rather than a way of life or an unchanging culture. There can be no 'ideal' or 'traditional' working class. Instead there are individuals who are brought together by shared circumstances and experiences" (p.33).

There are many other ways of defining the British working class and its sub-divisions, but Todd's was particularly helpful for our analysis because it emphasized lack of power arising from economic position, shared socio-economic contexts, yet substantive differences realized within apparently common circumstances. Todd drew upon qualitative vignettes and case studies, to generate a wide ranging and historical analysis across the period 1910-2010, while ours provided much more limited, though detailed and rich, narratives of four families in 2010. Because, across the English-speaking world, "class" and "working class" have varying interpretations, we thought it sensible to spell out at the beginning of this article, for an international readership, what the terms mean for us.

The families

Our study, (See Mazzoli Smith, 2010, Mazzoli Smith 2013, Mazzoli Smith and Campbell, 2012 for further details on methodology) generated the narratives of four working class families in the North-East of England about giftedness, education, and social class. Each family had a child who had been identified as gifted in the then English national programme for gifted education. The four families had been selected to participate in the study because they were classified as "moderate means" in the geo-demographic ACORN database, in essence a postcode marketing database incorporating lifestyle factors with economic and social ones. (See www.caci.co.uk, for further details.) Moderate means families tend to live in the old industrial heartlands with many employed in traditional blue collar occupations, or in service or retail services, and in locations where there are isolated areas of unemployment and long term illnesses. Housing is typically terraced and includes many former council houses (i.e., public housing). Such families were sometimes called the "respectable" working class in order to emphasize their social attitudes, while elsewhere, the label "skilled, semi-skilled and unskilled manual workers" has been used to emphasize their occupations and qualifications.

In line with the diversity noted by Todd, there were considerable differences in the families' educational and economic experiences. (All names are pseudonyms).

1. The Booths comprised Patrick, the father, who worked in the engineering plant on a local industrial estate and his wife, Shirley, a beautician. Their children were Fergus, aged 15 and identified as gifted and his sister Holly, aged 10. Fergus's biological father, with whom he had a good relationship, but who did not live nearby, originally came from South America. Shirley's mother participated in the interviews. The Booths' parents and grandparents had worked as labourers on farms and in coal mines.

2. The Desmonds comprised Maggie, the mother, Amanda, her daughter aged 15, identified as gifted, and Amanda's stepfather, Chris. Maggie was a care worker and Chris worked as a warehouseman. Chris's biological daughter and her daughter were also part of the family. Both Maggie and Chris had parents who had moved around for their jobs (public house trade and Merchant Navy) and their

education had been adversely affected by this mobility.

3. The Newlands comprised Pete, the father, Debbie the mother and Nicolas their son, identified as gifted and aged 17. The Newlands were an example of an upwardly-mobile family where education had, within one generation, significantly changed the prospects and fortunes of the family. Both parents were born in the North-East and their families had worked in the local heavy industries. However the father, Pete, was largely self-made, and as a successful software programmer, had a comfortable lifestyle and the Newlands sent Nicholas, to an independent school.

4. The Breakwells comprised, Keith, the father, and Claire, the mother, and two daughters, Emma, aged 16, identified as gifted, and Lily, aged 14. Keith was a secondary school teacher of Design Technology and Claire was a part-time primary school teacher. Keith's father had worked in the local cotton mills while Claire's father had left school at twelve to earn money after his father had lost his job.

Findings

The "Chav" culture: hostility and fear

Our most striking finding was a sociological one and was unanticipated: our families defined themselves, their values, and their explanations for their children's giftedness, first and foremost by describing characteristics they despised in others living near to them - characteristics they perceived as distinguishing their neighbours from them.

Owen Jones, in *Chavs: the Demonization of the Working Class* (2012) argued that the media, especially newspapers, television, and social media had created an image of the the British working class as a "feckless problematic rump", idle and living on welfare, prone to poor parenting and promiscuity - an underclass, called "chavs". It was an image that became embedded in public discourse in Britain, and had profoundly influenced the families we investigated. Jones reported a BritainThinks focus group caricaturing the working class through "deeply unattractive images: flashy excess, cosmetic surgery gone wrong, tacky designer clothes, booze, drugs and overeating". He noted, "the almost complete absence of accurate representations of working class people in the media, on TV and in the political world, in favour of grotesque chav caricatures." (p.14, Preface)

He cited Lynsey Hanley, author of *Estates: an intimate history* to the effect that the class hatred involved in demonizing the working class as "chavs" was, not a one way street, but a collusive often subtle process which demeaned everyone. "In fact a great deal of chav-bashing goes on within working class neighbourhoods, partly because of the age-old divide between those who aim for 'respectability' and those who disdain it." (p.19, Preface)

This was precisely what we found; a demonization of some of their near neighbours by all the adults in our families that was vengeful, vitriolic, and vituperative; living in close contact with "chavs", they characterized them as the degenerate other, exploiting welfare, lacking aspirations, and feckless, the other side of the moral and social boundaries that the working class families we studied had constructed to maintain a narrative of their difference from the equally working class "chavs". It was as though they feared their children would be contaminated by contact with them. If you called someone else a "chav", it meant you were not one.

The Booths, for example, were driven by their belief in a work ethic, and they expressed a stereotyped hostility to families they knew who did not share their values and who were benefiting excessively, as they saw it, from welfare:

Shirley: And all over that side of the town... to Radford Road at the back end of the town centre is classed as Waites Ward, - Beirut we call it -, and they, (i.e., the welfare providers) they give them everything. Free swims, free discos, the lot.

Patrick: And the parents drop them off and sit in the bar.

Shirley: And like this Educational Maintenance Allowance (i.e., a government-funded support scheme)…it's all them kids who get the full amount.

The reference to Beirut as a synonym for run-down public housing estates was particularly interesting since the national tabloid newspaper, The Sun, had run a headline 'Estate is like a nastier Beirut,' The Sun, 9 April 2008.

Likewise with *the Newlands*, Pete, the father, enthusiastically reported a widespread joke about the female "chavs" as sexually promiscuous at an early age.

Pete: And parents, I think that's where the education, a lot of it, should be. Teach the parents what's available so they can show the kids. As long as the parents are interested, - a lot are not.

Debbie: But a lot, a lot of parents are, are technically, still kids themselves, they're very young, and...

Pete: [Laughs] That's what they say up here. What do you call a twelve-year old chav? It's grandma! [laughs]. Sorry about that [laughs].

We stress this harsh caricature, held by all four families, for three reasons. First, it provided a fundamental moral justification for the families' own attitudes to education, and the identification of their children as gifted buttressed the families' sense of their own rightness and their difference from those not so identified. Second, it served to excise concerns for educational equity from the families' values, since the "chavs" were the undeserving poor. Special treatment designed to cater for the learning needs of gifted students was seen as being fundamentally fair, not unfair. Any larger, societal, structural, consequences of educational policy had little salience for them.

The third point is the most significant for understanding the families' views of giftedness and high educational achievement. There was a direct link between wider family values and educational values, for instance, a strong work ethic, and the importance of discipline and respect for teachers, which arose from a stated adherence to what they called "traditional" values. It is difficult to understand the families' construction of education without drawing upon such a social class perspective, in which their moral superiority to nearby social groups was reflected in a discourse of derision directed at them. It pervaded their educational aspirations and enabled them to construct the most fundamental explanation for their children's high achievement. Yet research on educational attainment, and particularly on gifted education, is largely devoid of this kind of sociological understanding, thereby, missing the investment that people have in the idea of labelling some children as gifted - a point elaborated on by Mazzoli Smith (2014).

The dominance of entity Theories of giftedness

The families spoke about giftedness in quite similar ways. Each family described a gifted child in terms primarily of innate ability, often evidenced through detailed accounts of early precocity in their children, as Freeman (2012) suggests, and complemented by motivation and hard work.

The concept of ability as innate was left largely unquestioned, suggesting that families accepted that being gifted was something one was born with, relatively unaffected by environmental influences.

Keith Breakwell gave the clearest idea of giftedness as pre-determined using a stark metaphor:

Keith: I have to say, that teachers can only do, you, you know, you've got a material to work with, and if it's an inferior material it's very hard to, you know, to make it any better. But if, if you get better ingredients, you can make a better solution, a result.

His daughter, *Emma* emphasized her early achievement, largely independent of environmental factors:

Emma: It was just the fact that I was always, well I was since, always like slightly cleverer. Not to sound big headed but I have always been in the top band. … and that's always been like another bit of incentive to kind of work hard to stay in the top band.

Keith developed his view, arguing that giftedness should be seen as close to genius. In this he was supported by Emma's making a distinction between "gifted" and "talented":

Keith: ...To say somebody's gifted is usually when someone has a really special gift and they, you know, they can play the piano at three years old or that, you know it's a gift. Beethoven was gifted … not just a cleverer person.

Emma: Talented is something you can work on, you can work towards your talent and improve your talent, can't you? A gift's something, it seems to be given to you.

Their conceptions of giftedness were primarily inward-looking, that is, concerned with the internal world of the individual, according to Sternberg's (1990) taxonomy of intelligence by metaphors. Likewise, following Borland's (1997) division, these families tended to hold conjunctive conceptions of giftedness, where there is a single profile, with a number of traits coexisting. Indeed, it is significant how similar these traits were in each of the families; innate ability, motivation, and hard work.

Three of the four families also specifically linked their child's giftedness to ancestors, supporting the view that giftedness was hereditary. Moreover, since the children largely concurred with these understandings, our research points to how important parental conceptions of giftedness are for their children. As Dweck has suggested (1999), this in turn has ramifications for a student's educational development. Our data suggested that although families considered hard work as necessary for a gifted child to succeed at school, they also thought that high achievement came more naturally, or easily, to gifted children, both because of their innate ability, motivation, and interest, and because they got through school work more quickly.

For these families, the shifting tide researchers in gifted education write about, away from an idea of a fixed, general intelligence, towards a developmental notion of multivariate intelligence, (notwithstanding the fact that there is a lack of consensus about this shift within the research community itself), did not play a significant part of their own conceptions of giftedness as innate. Although lack of familiarity with debates in the research community might be expected, the national program, which directly affected them, had explicitly incorporated this modernized concept of intelligence (See Campbell et al., 2009), but had failed to communicate such conceptions of giftedness in reality. From the modern research perspective, and, (more directly relevant), from that of the conceptions of giftedness in the national program, our families' constructions looked culturally anachronistic.

A second way in which our families' views of giftedness appeared culturally behind the times, was the use of the metaphor of "a sponge" to illustrate it.

Amanda: I think it came naturally to me in primary school really.... All the way through, ... it wasn't a matter of you have to do well over the first few years, it's just I just wanted to. I wanted to do well. I had, I could do it, like, well.

Chris: I think some kids are like Amanda, they've got a willingness to absorb...
she's like a sponge, she takes everything in.

Maggie: Desperate, desperate to get to the next stage

Our families, parents, and children, used this metaphor to illustrate their construction of giftedness as the unusually fast acquisition and retention of factual and conceptual knowledge; absorbing knowledge and memorizing it in order to reproduce it in schoolwork, tests, and assessments. Giftedness was tightly restricted to performance in the school curriculum. Apart from one striking anecdote about a musically talented peer, there was no sense of giftedness as creative, or as problem solving.

There was no sense of giftedness as concerned with the active construction (or co-construction) of knowledge rather than its acquisition. Co-construction of knowledge was a central characteristic of 'personalized' learning, promoted at the time of our research by the English government as an important pedagogical innovation. (See Campbell et al., 2007a, where personalized learning is seen as particularly appropriate for gifted students).

The family context: Carrying vicarious ambitions

Our study placed the gifted child in the wider familial context and showed the reciprocal, interactive construction of giftedness through the parent-child relationships. When studies of giftedness focus primarily on the child as the unit of study, this parental perspective is obscured; hence, gifted children are often spoken about in the family context as though there is one response to them, and one to their non-gifted siblings (for instance Cornell, 1983; Colangelo and Brower, 1987). However, our study demonstrated that parents who believe that they too had the ability of their gifted child yet never developed it, felt resentment over their squandered potential, angry at the education system, or loaded their lost ambitions onto the gifted child. This was best reflected in the Desmonds' comparisons between their schooling and that of their gifted daughter, Amanda.

Chris: I mean if you could turn the clock back I, I would have gone, or tried to go, much further. I left school with 3 CSEs and went into the army.... I think I got my education in the army. 'Cos when I, when I was at school I never used to pay attention. I didn't have…I don't know, I suppose I was a rebel, when I was at school, but soon as I got out and got in the army I realized that, you know, learning was the way to get ahead. That's the way I've been ever since.

Maggie: I hated it, hated school.... I mean I couldn't wait to leave. I was clever, very, very clever, but I got bullied terrible....so I just, I couldn't wait to go. I couldn't wait to get out the place. I did my exams but, it was like, that was it, that, to me, that was me finished, I didn't want to do anymore. And I regret that now, I really, really do. To see like, how she's [referring to Amanda] come on and I think, Yeah, that, that could have been me. 'Cos I have the brains that she's got, but I just wasted it and didn't use it.

Both Maggie and Chris as pupils, along with their children by previous partners, had experienced some pretty harsh school environments. Apart from Amanda, family members had low levels of educational achievement. There was considerable focus in the interview on Amanda's detailed plans for her future, as though the family was willing it to happen: "She will do it and she'll be the best vet in the country" - affirming how important her success was to the family.

Much rides on how giftedness is experienced by the parents, and this is therefore a useful point of departure for researchers seeking to understand the development of the gifted child. Studies of optimal home environments for gifted children (for instance Campbell, J R., 2007; Winner, 1996) could in this way provide a more nuanced account of how parents with different educational biographies, and dispositions towards giftedness, facilitate their children's education. This having been said, Campbell's three factors found to be most associated with a positive academic home climate - high expectations, a strong work ethic, and positive family communication, - were all supported by our study, even if, at an individual level, complex patterns underpinned them. This research orientation provides evidence of one way in which individual variation can work to complicate or question the determinism in Bourdieu's (2004) principle of the reproduction of cultural capital, as Nash (1999) suggests. We elaborate on this point later.

Our data also suggested that the scenario of a gifted child having vicariously to carry his/her parents' ambitions might be more common to able children from working class homes than is currently appreciated. Three of our families described being born into a context of substantive educational deficit and the range of difficulties it implied. Whilst studies are more likely to stress that parents have to manage expectations in a general way (for instance, Morawska and Sanders, 2009), our data showed how strongly this was mediated by the particular socio-economic contexts of families.

There was a tendency in several of the families to suggest that a gifted child needed more opportunities and better provision than other children, and that parents had to ensure that the gifted student's needs were being met. This concurs with Desforges's (2003) finding that the more highly a student attained, the more involved in their education a parent became. This reciprocal relationship was directly supported by our case studies. In this sense the high achievement of the children had to some extent influenced the agentic orientation of the parents towards their schooling. However, taking the family socio-economic context and the educational biographies of the parents into account are essential if the education systems are to enable parents to do this. Clearly, parents who are confident about supporting their children's education are more likely to rise to the challenge of parenting a gifted child. The parents in this study explicitly stated the opposite; that they did not feel adequately equipped to support their children and that the education system did not provide them with support for doing so. The parents in this study wished to see additional material available to them to enable them better to support their children's high abilities, interests, and university applications. This is one way in which a policy intentionally designed to identify and develop able students from working class homes, might fail to realize its intentions because of defects experienced at the level of the individual school.

Giftedness, labelling and inequity

Freeman's (2001) argument that gifted children need greater challenge than other children was endorsed by our families. This fits in with arguments by Borland (1997) and White (2007) that when giftedness was seen as largely innate, attendant inequalities would not be seen as the result of the practice of identifying a gifted cohort. The families, while expressing some unease about whether there was fair treatment for all students in the school system generally, had little agreement with the commonly expressed criticism that catering for students identified as gifted was "elitist".

Emma: Does it make the other children feel less special? You don't know.

Keith: I don't know about that. That, that depends on how those children have been brought up.... If they're, if they have a negative response to being told that something is, you know they're not as good, if they're not able to work through that because of their upbringing … can't cope with it, then it hits them hard. See some will, will take that and say, right then, fair enough, I'm not bright, and not aspire. Others will say I'm gonna prove you wrong.

There was some perceived uncertainty (or possibly some hypocrisy) amongst the teaching staff about labelling students, according to Emma's account of how she was treated at school when a gifted and talented group was identified for special treatment:

Emma: In Year 9 they said girls could go on this trip to do Engineering or something and our tutor went absolutely crazy saying that she didn't want anyone labelling us gifted and talented, it was unfair to everyone else. And then the next day she was like, 'Congratulations for getting on this course, it's a really good step in your education'. So it was like [I thought]…'What are you doing? That's a bit weird'.

The Booths displayed no concern about the social equity aspects of giftedness in relation to their son, with an absence of concern about elitism. Although there was a wider rhetoric of equality and fairness, Shirley's concern was expressed somewhat ambiguously, but was focused on unfairness to

gifted children, whose interests were adversely affected as she saw it by resources being squandered on the low-achieving students.

Shirley: I was told the brighter the child, the more money they got….They got more money for bright children and they need to put it for all of them (the bright ones). Because at the end of the day, it's gonna be a two-class system in this country in the end. It's gonna to be the "benefits" and the "non-benefits". You get the ones (on welfare, "i.e., the benefits") what'll go on to take what they want and do what they want with their lives and never have to worry about getting up or anything like that, but there's ones who have to work hard.

Arguments about elitism flowing from gifted education were not seriously addressed, possibly because our families were, in principle at least, if not in practice, the beneficiaries of it, but also because in their narratives special treatment designed to cater for the learning needs of gifted students was seen as being fundamentally fair, not unfair, to such students. Any larger, societal, structural, consequences of educational policy on giftedness, of interest to left-wing academics, had little salience for these working-class families.

The national program for gifted education: Experiencing policy failure

All the families were unimpressed with the then national program for gifted education; they could be placed on a continuum from lack of interest and lack of knowledge to anger and to cynicism. What was also common to the families was the fact that the labelling of a gifted child, without relevant educational provision, carried with it little added value, since all the families already knew their child was a high achiever. The only benefit of the label was that it acted as a mild incentive; students expressed a desire not to fall off a register once labelled. In all four cases, the national program was found to fall short in the provision of concrete educational pathways after the label had been applied.

The Newlands family heard about Nicolas being identified as gifted, when he was identified and put on the school's register, but thereafter they found no provision that they judged appropriate for him. Pete, the father, was forthright in his condemnation of the policy in practice:

Pete: … I think that's what the government's achieved. Absolutely nothing. And wasted such an opportunity there, the collection of young brains, they could have done something with.

Debbie the mother, was a little more tentative, thinking that they might not have informed themselves as fully about national provisions as they could have. Nicholas, the son, had nevertheless rejected provision as not relevant to his interests:

Debbie: We got a letter saying that Nick had been put onto the [gifted and talented] register. But as far as the, the scheme itself worked we didn't get anything else, or very, very little. And nothing happened...and we were, well, could be our ignorance, we didn't know if we had to do anything, to look for anything or was it coming from their end, and they were going to tell us. We just didn't know.

Nick: It was, well, at school, most of my classmates, because I was in the top sets, were in this NAGTY. So we're all high-flyers, we're all, most of us were in this NAGTY, so it wasn't a big thing…there were, activities and outings, but the Science ones, they were very foreign and weird ones that they put on. There was things like Geology and Zoology and Botany and, things that you had to have a specialist interest in. There was nothing that I remember, and I may be wrong, that was generalized...I can't remember there ever being Physics ones or, you know Chemistry ones, it was always something very specialized. So that was the reason I didn't volunteer or go on them.

Pete: From a parent's point of view, I think it's potentially a good idea that's [been] a waste of time…And why not ask the parents? We've got this register, your child's been put on it, have a parents' meeting, 'What do you think the child would benefit from?' or ask the pupils, 'What would

you like to get out of it?' Not, here is a list of things that, with respect, some academic or whatever's put forward [laughs] and said you know, these are a list of things we're going to give you…The, academics have gained Brownie points out of this system. The schools have gained it, 'We've put forward X amount of pupils, look how we are, how good we are,' which is going to get them up the ladder or get more parents to pay fees and send them to that school because X% of them get put onto this register. So what? The people who should benefit from it, the pupils, they don't, so what a waste of time.

Nick: When I won, I got a Gold in the UK Mathematical Challenge, that was more of an uplifting kind of thing, 'cos out of the school, maybe two people would get one of those, or be able to perform to that standard. So I think that was a bit better because it was such a select thing. But NAGTY, when you're on that list, it was like the bar had been lowered, so everyone rushed on.

This suggests that the gifted label carried with it considerable weight, but not necessarily in the way envisioned by policy-makers. Rather than it being a strongly motivating factor in itself, labelling a child as gifted appeared to act in a static confirmatory way, but carried with it a weight of expectation that it would be dynamic, opening up opportunities and pathways. This was largely unmet. In this, the families concurred with the survey of parents of gifted students (Mazzoli et al., 2006) who were also critical of the relevance of provision.

It is pertinent that the families laid the blame at the door of teachers and schools, not the government, even though the national program was initiated, managed, and funded by the central government. Just as Radnor, Koshy, and Taylor (2007), claim that it is teachers who are having to carry and manage the inconsistencies at the heart of policy, so with these families, teachers were largely held responsible for inadequate provisions. For some teachers these problems might be exacerbated by the irony that they too had considerable reservations about the national program, according to a survey by Hewston and Campbell (2005).

Parental involvement in schooling: Agency and passivity

A particularly critical analysis of parental participation was that by Vincent et al. in an Economic and Social Research Council (ESRC) funded project entitled *Little Polities: Schooling, Governance and Parental Participation (*2001).

Influenced by Bourdieu, Vincent mapped for each respondent the following:

- Their social positioning (occupational experiences etc.);
- Their habitus (lifestyles);
- Their references to resources of social, cultural and material capital and their activation of these;
- The issues over which they were concerned; and
- Parental agency and how the institution (school) responded to them.

(Vincent, 2001: p. 349)

This framework led Vincent to conclude that there were still "entrenched traditions of professional exclusivity and lay silence" (Vincent, 2001; 360); that parental voice was relatively impotent to influence the power exercised through professional decision-making.

Some of our narratives supported, and others challenged, Vincent's view, though almost all of them refer to attitudes rather than direct action. The Booths had a deferential, even passive, attitude to influencing school decisions: They wanted the return of corporal punishment, but did not seek it; if their children had problems in school with mathematics, they intended to buy a private tutor rather than press the school to change; two wildly contradictory teacher judgments about their son were accepted without demur; and they did not intervene when they thought the provision for gifted students was inadequate. The Breakwells' narrative offered a kind of vindication of Vincent's assessment, since they were teachers themselves, and were mostly dismissive of the views of students

and parents, and said nothing about encouraging parental voice in general. On the other hand, the Newlands' narrative reflected an attitude of active engagement in their son's private school, with heavy commitment to sports and other extra-curricular clubs. Their judgment that the local comprehensives would not cater well for him, did not lead to their working for change in those schools, but to exercising their own choice of private education. They did not take at face value their treatment by some university staff and were strongly critical of dumbing down. In one case they had challenged the view of their son's teacher directly. Attitudinally, they presented themselves as ready to challenge professionals' judgments, but they exercised lay voice by exercising lay choice to opt out of state schooling - not what Vincent was espousing. The Desmonds were more like victims in their relationships with schools, for despite going into school to try to prevent their son's repeatedly being bullied, they obtained no redress. A history of their own poor schooling and low achievement added to the failure to exercise voice. In Amanda's case, inappropriate provision for gifted students went unchallenged by the Desmonds. However, it was not quite so clear cut as Vincent's model would imply, since the Desmonds, through Amanda's outstanding achievement, had been left with a sense at least potentially, that they could play an active role in her education.

Discussion

Some implications for policy and theory

Our families fell into the category of "under-represented" groups, that is without a tradition of children going to universities. A substantive element in the national program was to search out, identify, and support the educational progress of gifted children from such families. (Children from families of moderate means constituted some 16% of the school population and 9% of those accepted onto the national program, according to Campbell et al., 2007b). Although we do not claim representativeness for our four families, their experience and understandings of the national program, its conception of giftedness and the relatively poor support they encountered, offer some indications of how future policy formation, whether in England or elsewhere, might be better attuned to the needs and social contexts of such families. We are not suggesting either that policy should be developed only by reference to the interests of social groups or by reference to a particular group. We are merely arguing for policy-makers to develop a more socially inclusive approach to policy formation. There are five aspects worth consideration.

Curriculum and cultural capital

Policy on gifted education assumes high levels of cultural capital to know about, understand, and access its benefits; yet cultural capital is unevenly distributed socially. To avoid the charge of social bias in the provision of gifted education, particular attention should be given to the nature of curriculum enrichment provided. To take one example, if a policy aims to enrich students' learning by the provision of broad, intrinsically valuable programs which are, or are likely to be seen as, unrelated to the students' mainstream courses of study, such provision will be attractive to those with an intrinsic approach to their learning, but less so to those who view their schooling in a more instrumental mode. The latter, more likely to be found in the working class, would want provision that strengthened the depth of their knowledge in their school subjects, given their heightened sense of the competition for university places.

To caricature: the middle class student at an elite independent school, studying physics, mathematics, chemistry, and biology, and predicted to get a place at Oxford to read medicine, might find a program on Astronomy very interesting and attractive; her working class counterpart, following the same subjects in her comprehensive school, but less confident of her university place, and less aware of the opportunities available to her, would probably want a program related directly to her school studies or projected career in Medicine, such as further mathematics or cognitive science. Astronomy would fit poorly with her instrumental approach to learning. We illustrated this issue for Nicholas, above, and he was the student at a private school, with probably the broadest extra-curricular provision of the four. Nicholas's father proposed that identification should be followed by serious and sustained consultation with parents and students as to what kinds of provision would meet their needs; to personalize provision rather than provide a centralized pre-formed top-down menu

from which students had to choose. Although this proposal is not without its logistical and practical difficulties, a trend toward locally owned provision and e-learning make it a model worth pursuing.

Conceptions of giftedness

The families had a view of giftedness which was "old fashioned" in the sense that it was thought to be genetically determined, little influenced by environmental factors, and concentrated on performance in traditional school subjects with high cognitive demands. There was little interest in creativity, the arts, music, and drama, and we saw this as mostly explicable by the families' instrumental view of education. The policy issue here is fairly clear; the government agencies and the schools need to communicate more effectively the broad modernized concept of giftedness and to adopt it more explicitly in the criteria they use for identification. Not to do so would be likely to exacerbate the existing trend for bi-furcation in gifted education; developmental multi-dimensional models of giftedness including creativity and the arts as well as high cognitive performance, reserved mainly for the professional classes, and a more limited and deterministic model for children of the working class. This might not be a deliberate effect but it could emerge by default.

Further research could usefully be carried out into whether this bifurcation impacts on the entrenched nature of the attainment gap between the children of higher and lower social class families. Indeed a broader understanding of how families conceptualize giftedness and high ability, along with a high profile campaign to communicate a modernized conception of giftedness might play a part in tackling the attainment gap.

Parental agency

Apart from the Newlands, the other three families had all confronted their children's schools over the treatment of their children, but found it impossible at times to be heard, or implement change, most notably in the case of the Desmonds, who described feelings of impotence in the face of institutional structures. This appeared to be because their views or feelings were not backed up by sufficient cultural capital, confidence, or financial resources. This seems particularly ironic and unfortunate, given the raised agentic orientation, referred to above, that arose from having children identified as gifted. Pete Newland (Nicholas's father) explicitly asked whether a booklet could be given to parents of children identified as gifted at school, providing information and guidance about how best to support their children. Raised sense of agency is likely to lead to frustration and anger if it is not followed by responsive attitudes in the schools, and especially if it is seen as socially biased, with middle-class parents being seen as more effective in influencing practice both in the schools, and, given their higher levels of cultural capital and knowledge of the education system, in the home also.

The national program: Mainstreaming as a problem

The families had little admiration for, or satisfaction with, the national program. Once their children had been identified as gifted, they experienced almost no further educational provision that was relevant. Indeed opinion was so forceful in several of the families, that the question is raised whether the weight of expectation for high quality, relevant, educational provision generated by the gifted label was damagingly counter-productive, when such provision was not delivered. The data suggest that the weight of expectation for provision generated by labelling a child as gifted, despite its being seen as merely confirmatory, exceeded anything anticipated by policy-makers or educationalists; unmet, it proved more damaging, in terms of negative feelings, than not labelling at all.

The English model, which emphasized provision where possible being provided through the students' school may have placed too much emphasis on such mainstreaming, especially in a system where most teachers had no training in teaching gifted children and had low confidence in their capacity to do so, where there was no dedicated funding stream, and schools were under pressure to raise the performance of lower attaining students. If a policy of mainstreaming is to be effectively adopted it needs to be properly funded at the level of the individual school and provision locally determined.

Theories of cultural reproduction

It is clear from the foregoing that we judge the policy frame on giftedness on the idea that it has reflected the advantages that the middle and professional classes could secure for their children through their possession of cultural, social, and importantly, financial capital. A government wishing to introduce improvement in social equity in education policy would need to adjust its policies so as to accommodate the social context of working-class families. Bourdieu's theories, which stress the tendency of school systems to reproduce social inequalities, have tended to buttress a sense of helplessness about changes in such inequalities, because of the difficulties that transformative educational policies have encountered. We do not pretend that change in social inequalities is easy, or can be brought about by school systems alone. However, it is not an intractable problem, despite Bourdieu's rather deterministic stance. On the contrary, we found amongst our families some substantive pursuit of cultural capital, though less effective social and financial capital. All four of our families offered evidence that, despite the general theory of cultural reproduction, they were, at least through their gifted children, potentially capable of breaking the reproductive moulds in which their family history had cast them. For at least three of them, new identities were being sculpted through schooling. It raises the intriguing hypothesis that theories of reproduction, though broadly valid, may not apply to some working-class families with children identified as gifted.

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The Role of Drama Therapy in Fostering the Creativity of Individuals with Intellectual Disabilities: An Overview of the Lublin *Teatroterapia* Workshops

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Abstract

This paper aims to show how drama therapy workshops, the Lublin *teatroterapia*, can be used as a method of rehabilitation for the mentally handicapped. It serves the crucial purpose of social participation, giving people who are often rejected and misunderstood by society an opportunity to be involved in creative activities. The idea nurtured by these workshops is reflected in the so called "theatre manifesto" of mentally handicapped individuals, which underlines equal rights for people with intellectual disabilities regarding their creativity and participation both in culture and art. Theatre therapy also facilitates their social and emotional development. The participants are intellectually disabled persons over 15 years old, who agree to be engaged. Lublin's *teatroterapia* workshops collaborate with many public institutions such as health centers, schools, day care facilities, cultural centers, local authorities and non-governmental organizations (NGOs). We include excerpts from the disabled actors' personal narratives. Through success in theatre therapy, learned helplessness can be prevented.

***Keywords*:** Art; theatre; creativity; special education; intellectually handicapped; drama/theatre therapy; occupational therapy; disability theatre; social participation; inclusion; children; adolescents; adults.

Introduction

Both art and disability involve a social and a psychological dimension. Given this link between art and disability, it makes sense for researchers to direct greater attention to the social and psychological contexts in the lives of disabled persons. Traditionally and historically, focusing our attention on biological dysfunctions and physical barriers, (which cannot be overcome by the disabled), may have a negative impact on their full participation in the world of culture and art. It can even make their creative or artistic involvement impossible. Furthermore, we are convinced that, through the positive experiences which can be gained from encounters with art, the disabled may enjoy full inclusion in the wider society.

Undoubtedly, in trying to participate in art, the disabled may face major difficulties in choosing an appropriate way to communicate. For instance, people with visual impairment, or who are deaf or hard of hearing,, have in the past enjoyed a variety of aids to communication. Such specific channels of communication may indeed influence the aesthetic feelings of people with sensory handicaps in particular ways. However, visual and auditory disabilities will not necessarily diminish art's therapeutic potential. Nor will such disabilities reduce some of the other positive experiences associated with participation in art. Participation in artistic projects enables handicapped persons to enrich their existing view of the world and to bring their own personality and varied life experiences into play. Similarly, over-emphasis on the biological functioning of disabled persons can have negative effects on their participation in the process of creating valuable products or remarkable

works of art. Their doubts or hesitations may be compounded if they experience educational and rehabilitation practices that are still widespread, but perhaps becoming increasingly out-dated. As a consequence of this state of confusion, disabled persons may respond negatively to artistic activity and may strive for a perfect performance instead of gaining a fuller understanding of the outcomes of their own actions (Śliwonik, 2006).

Despite Chudy's claim (2006, p. 22) that disabled persons' self-actualization is hindered by limitations in mobility, expressive language or intellectual deficits, we suggest that these barriers can be overcome. We cannot exclude the possibility that these very differences in perception, interpretation and self-expression may enable disabled persons to respond creatively when they are given a chance to do so. A noteworthy example of such a creative activity might be participation in one of Lublin's "drama/theatre therapy workshops" (Polish *teatroterapia*).

Our workshops' theatrical repertoire is chosen with a view to gaining insight into some of the complex problems facing people with intellectual disability. What really matters is honesty of artistic expression. In order to achieve these goals, emphasis should be placed on those activities which enhance self-awareness, emotional expression and self-determination. When all the participants in a theatre workshop become aware of their own actions, their responsibilities and their partnership in a team, it becomes possible for them to discover the personal meaning of the role they are playing. An Appendix to this paper lists the plays that have been performed in our *teatroterapia* workshops.

Some historical facts

The person who initially set up disability theatre in Lublin was Maria Pietrusza – Budzyńska. In Poland, the idea of a theatre employing intellectually disabled actors was unique at the time, but as DAN (2009) has indicated, many similar groups have now been established, their common goal being to encourage the rehabilitation and social inclusion of disabled persons through participation in art.

Additional accounts of Maria Pietrusza–Budzyńska's successful endeavours are given by Józefczuk (2010), and by K. Babicki, the artistic manager of *J. Osterwa's Theatre* in Lublin, who describes the transformative potential of theatre therapy workshops (MG, 2007).

In November, 1995, the professional institution – *J. Osterwa's Theatre* in Lublin – took over a whole group of 20 individuals with intellectual disability who attended a special school (No 26) in this city. Among the students were actors from the *Theatre of the Little Plant*. All the performances by these exceptional artists received a warm reception. It was obvious that the actors and onlookers were emotionally engaged in the performances. The plays were prepared by mature artists and competent actors, and the main means of expression was through pantomime merged with dance. Subsequently the following plays were performed: *Masks*; *How to MakeThis Broken Heart Unbroken*; *Searching for a Human*; *Clown in Love*; and *Awakening*. This marks the beginning of the theatre therapy special workshop.

It must be stressed that after the co-operation between *J. Osterwa's Theatre* and the troupe of disabled actors was initiated, Lublin's *teatroterapia* workshops began to engage students who graduated from a greater variety of schools. Initially, only a special school, No 26, which catered for the needs of individuals with mild intellectual disability, was involved in the workshops. Workshop participation was subsequently extended to include schools which were designed to educate students with a greater degree of disability ("trainable mental retardation").

It should be noted that even today special education in Poland may be based on pedagogical assumptions and practices that were current from the 1920s onwards. Special schools were then regarded as the most suitable settings in which to ensure that children with special needs had an opportunity to realize their full potential. Nowadays, despite the growing popularity of inclusive education or integrated settings, special education schools are still an option that exceptional children and their parents may choose.

The idea that had been nurtured since the time when the Lublin *teatroterapia* workshop was set up could have been expressed as follows:

We have a right to create and to take part in both culture and the art of drama, just as we deserve meaningful living in our city, in our country and finally in the whole wide world...undoubtedly, we ought to be regarded as people who feel the same way as all normal people *(Theatre manifesto of the mentally handicapped actors*, on-line access www.lublin.teatroterapia.lublin.pl).

Special education professionals and researchers have claimed that, in past centuries, theatre (both as a cultural facility and drama therapy) was inaccessible to the disabled. Thus, theatre's therapeutic role in special education, along with other potential benefits, were ignored. Such benefits might include social integration and inclusion, as well as a reduction in social stereotyping and prejudice. However, as research on pre-literate societies indicates, group participation as an actor or spectator has played a time-honored role in education. Nevertheless, drama therapy, considered as a special education method for the mentally disabled, may be regarded as a new approach. In addition, it is still not common for such people to be engaged by a professional theatre.

In Poland, theatre/drama therapy was introduced into an occupational therapy workshop which had existed since the early 1980s. Theatre therapy, which is still regarded as an innovative form of rehabilitation, is very beneficial for the disabled because it combines art with skill development. It fosters not only intellectual and physical abilities but also personal development.

Currently, over 20 individuals, both females and males, who are between 20-36 years old, can participate in the Lublin *teatroterapia* workshops every day (see MGb, 2006). Some of them began to act in several performances in the 1990s. Interestingly enough, M. Pietrusza-Budzyńska has not called them “actors” but “artists” (Adamaszek, 2013). These performing artists suffer from intellectual disabilities, sometimes combined with other difficulties (e.g., attention and sensory integration deficits; communication difficulties: memory, reasoning and motor problems). They work in accordance with special programs which are usually prepared by therapists who are actors, educators, musicians or other specialists. It is this team effort that gives the disabled many opportunities to be successful. Social approval, a standing ovation, and a favorable reception by the spectators are highly positive and valuable experiences for both the actors and their families. As long as the intellectually disabled actors, (who are often rejected and misunderstood by society), are able to communicate everything they feel through art, the crucial goal of theatre therapy (rehabilitation through social participation) can be reached.

In June 2009, a theatre therapy workshop was replaced by a foundation called *Teatroterapia Lubelska* (*Lublin Theatre Therapy*). In the participants’ opinion, this constituted a milestone in social and vocational development; it enabled the workshop to be an independent and self-governing body in the artistic circles of professional theatres. M. Pietrusza - Budzyńska – a founder of Lublin *teatroterapia* – said that all actions fostering a sense of independence were indispensable. This structural transformation of the workshops enriched the artistic lives of the participants and confirmed theatre therapy's role as an innovative rehabilitation method, which supported not only the mentally handicapped but their families and local communities as well.
(www. teatroterapia.lublin.pl, on-line access on 6.06.2014).

While reading the local press we have sometimes come across accounts describing the Lublin *teatroterapia* workshop on *Jastrzębia Street*. The workshop venue itself is a friendly and welcoming place, its artistic decor created by the disabled artists themselves. It is difficult for these artists to overcome their traumatic experiences of rejection and humiliation, and to "...find the internal strength for performing on the stage...Maria and her collaborators know the secret of this incredible transformation." (MG, 2007).

The goal of the Lublin *teatroterapia* workshops, and professional collaboration

As stated earlier, the most important goal of the Lublin *teatroterapia* workshops is to enable mentally handicapped persons to reach as high a level of social participation as possible. Attitude change is a complex as well as a time-consuming process. Thus, the positive outcomes that we expect

from the program are mainly of an individual/personal nature. The *teatroterapia* team cooperates with as many as 20 specialists, including actors, dance and theatre instructors, trainers, educators, musicians, other artists and professionals. This collaboration ensures a high quality of enrichment activities, comprising music, literature, dance, psychology, art, rehabilitation, speech therapy, oratory, computer technology, mathematics and craft (tailor-made clothes). Occupational therapy workshops called *teatroterapia* collaborate with health centers, schools, day care facilities, cultural centers and certain local authorities. They are particularly closely involved with those non-governmental organizations (NGOs) which serve one crucial purpose – social participation and the maximization of disabled persons' vocational potential. (www.teatroterapia.lublin.pl, on-line access on 6.06.2014). It is only through this kind of collaboration that one can go beyond the common pattern of either medical or psychological rehabilitation. The activities of the theatre therapy workshops intend not only to teach somebody how to button or unbutton a coat, tie or untie shoelaces, comb hair or even go shopping. They also concentrate on art itself, that is, participating in a special kind of drama, the disabled theatre (Józefczuk, 2010).

The intellectually disabled actors: Some theoretical issues

According to Jajte-Lewkowicz and Piasecka (2006, p. 141), we may conceptualize disabled theatre using two essential models:

1. A model that assumes that the theatre of the disabled involves both therapy and rehabilitation (drama therapy which concentrates on the instrumental aspects of special education).
2. A model that underlines the aesthetic dimension of a show; this model focuses on the performance at a theatre itself, as well as on its artistic value.

The first conceptualization appears to be linked to a medical model, since the participants of drama therapy workshops might be labeled "retarded" or "mentally defective". The second conceptualization leans more towards a social model, in that it is focused on detecting and eliminating various barriers to full social participation, including such barriers as social discrimination, negative attitudes towards disability, stereotyped images and stigmatization.

Role-playing by an actor with intellectual disability is a fairly unusual example of using both models concurrently, so that they balance each other (Jajte-Lewkowicz & Piasecka, 2006; p. 146). As we watch the intellectually disabled artists during their performance, we may notice a special way of interpreting a role, a new pattern of role-playing. Such features of disability might be treated as " value added to a theatre performance". We could cite, as examples, the following drama therapy groups: *Tartaar Theatre* from Belgium, *Maatwerk Theatre* in the Netherlands, and *La Compagnie de L'Oiseau-Mouche* from France.

How does it work? The steps involved in theatre therapy

In essence, there are three key stages or steps in setting up theatre therapy for the disabled:

1. Discovering the human potential of the disabled actors (unlimited human opportunities).
2. Theatre therapy (preparations for a performance, play).
3. The actual performance (role-playing).

Step 1 exists regardless of the other two. Although it focuses on discovering the potential of intellectually disabled persons, it also seems to influence all those people who are not intellectually disabled, yet are engaged in this sort of drama therapy. Through such collaborative learning they gain new experience, as well as perhaps undergoing a transformative change in their personal outlook.

At this stage (Step 1) it is important to be familiar with "the convention on theatre". As Pietrusza - Budzyńska (2006, p. 138) claims: "Discovering and enhancing both personal and collective opportunities involves endless experimenting with educational, therapeutic, social and mostly dramatic/theatrical concepts and ideas."

Theatre therapy (also known as drama therapy) is based on the assumptions underlying *commedia dell'arte.* It combines a playful performance climate, stock characters in colorful costumes

and expressive masks, playing roles that are clearly portrayed. In preparing for a performance (Step 2) we might encounter problems. In Śliwionik's (2006) opinion, a real threat to the theatre therapy process is to perceive an intellectually handicapped artist solely as an actor who must play the role that was assigned to her/him by a director. Instead, we should focus our attention on careful preparation. Preparing for a performance should include not only formal rehearsals, but should also require pinpointing possible problems and coming up with appropriate solutions.

The preparations, which have usually lasted for months, foster both the personal and collective development of the participants – the actors. The work is not only focused on mastering role-playing skills, but also on co-operation with others, as well as understanding and accepting the nature of theatrical creation. An intensive training course is recommended so that the participants are prepared for as many as two plays in a year.

According to Pietrusza - Budzyńska (2006, p. 139-140), the last stage (Step 3) needs to support disabled actors by helping them to understand and come to terms with their disability, as well as to appreciate their own and others' humanity. A good drama therapy production should be sensitive to the disabled actors' life experiences. All three stages in preparing for a performance should allow for improvisation, in response to the actors' concerns or suggestions. It is in Step 3 that roles are fine-tuned, on the basis of detailed information, to meet the disabled actors' needs. Typically, Step 3 lasts for about 20 to 25 minutes.

Some notable performances

According to MG (2007), M. Pietrusza-Budzyńska recognized that the reactions of non-disabled audiences to a *teatroterapia* performance make a positive contribution to the actors' self-confidence and personal dignity, particularly when the actors have a chance to make their own decisions and to feel independent. The audience gives the actors a standing ovation not because they are disabled or clumsy, but because their expressiveness adds special value to the performance.

Among the exceptional achievements of the disabled artists was their performance of *Hamlet* which was directed by K. Babicki in 2004. This show was a team effort. Both the disabled and professionals took part in it. Eleven disabled actors from theatre therapy workshops played their parts in the performance at *J. Osterwa's Theatre* in Lublin. According to accounts by Józefczuk (2006, 2010), this was a pioneering attempt. All those involved in producing this play, namely the director, executive producer, costume designer, actors, scriptwriter, choreographer, manager and the light engineer reported on their experience. They described some of the problems they encountered in creating roles for the disabled actors, and how these problems were solved. In a report titled "To be or not to be" they recounted their experience honestly and tactfully; nothing was swept under the carpet. The choreographer stated that it had been necessary to create theatrical roles for the disabled actors. Initially, they came on stage and watched the show silently. Then, "...wearing vividly colored costumes that gave this show unbelievable mystery and power...they performed on the stage as a choir conducted by Ophelia." (Józefczuk, 2010). As Józefczuk concludes, these actors "...paved the way for a new debate about the limits on what was normal, regular and powerful."

The next noteworthy undertaking was the play directed by M. Pietrusza – Budzyńska in 2006 - *Isadora: The Story of a Woman*. The script for this play was based on the life of the famous American dancer – Isadora Duncan. The actors in the theatre therapy workshop told her story in their own words, in a multi-media setting which included classical music by Chopin, Beethoven, Schubert, Wagner, Strauss, Liszt and Bach. Visual resources which turned out to be suitable for this spectacle included Botticelli's and Correggio's paintings, the drawings of Gordon Craig (illustrator and chronicler of Isadora's artistic achievements), genuine photographs as well as frames from the movie based on the dancer's autobiography. (MGb, 2006). M. Pietrusza-Budzyńska writes about this play:

This play is about a woman who has devoted herself to dance. According to her, dancing is some kind of catharsis because it allows us to release our repressed desires, wishes and needs; the

body is the medium for saying something, using internal, covert, secret and ciphered words (MGa, 2006).

One of the most impressive performances of the theatre therapy workshop was Nobel Prize-winner Luigi Pirandello's *Six Characters in Search of an Author*. This play was performed at the *J. Osterwa Theatre* in Lublin, on November 7, 2011. Written in 1921, the play portrays six characters who are resisting the authority figures trying to direct their lives, (the play's author and director, as well as the production itself – the plot – that has created them). In their search for autonomy the six characters put on various masks, and thus experience becoming somebody else. As regards this theatrical event Maria Pietrusza-Budzyńska suggests that: "It is the text of their lifetime." If you happen to be lost in a world of convention and deceit, perhaps you do indeed require a mask. (Józefczuk, 2010).

When this play was presented at the 4th International Premiere Festival of The Disabled Theatre (DOMINO), the performance itself confirmed the play's high artistic merit. The team made sure that the theatrical skills of actors were further developed. The disabled artists seemed to gain an insight into common human problems (stormy adolescence, difficulties in adjustment and in social interaction). At the same time, both the high quality of the performance and the original stage design stirred up their aesthetic feelings.

Outcomes: the participants' personal narratives

More than fifty persons with intellectual disability have performed on the Lublin *teatroterapia* scene over sixteen years. M. Pietrusza-Budzyńska recalls how Sylvia, who initially was "...not even able to go downstairs by herself "...became so highly motivated by her theatre experience that "...during a performance of *Hamlet* she could easily find her way in the darkness, walking on a sloping surface." (Burdzanowska, 2008).

Again, M. Pietrusza-Budzyńska comments on how Norbert, a leather worker, turned out to be "...a poor leather worker but he plays his role in *Hamlet* brilliantly and he would like to sculpt too!" (Adamaszek, 2013, p. 8).

The following personal narratives were gathered by Adamaszek (2013). They reveal some of the transformative experiences that the *teatroterapia* actors have derived from their participation.

Norbert's narrative:

When I'm on the stage I can feel that they respect me for what I'm doing. I love the moment when I can finally hear great applause. Then I know that I'm successful. I can step up to my parents and I'm proud of what I've done. In five years I would like to be here as well, in this theatre, but to be completely independent. Just to have my home.

Another participant is **Bożena,** who tells her story:

I attended a vocational school. I specialized in knitting. My schoolmates got married and were pregnant. They went away somewhere. Later, I came to Lublin *teatroterapia* workshops. The job I could do is unlikely to be found. I'm 36 and I can show you that I can do something. Just on the stage. I can reach many different destinations all around the city by bus, on my own. Recently, a female reporter from Wroclaw asked me a question about motherhood. I answered that disabled women like me couldn't be mothers, although they strove for it. But my dream has just come true. I attend a Latino dance school and I'm mastering *zumba*. In five years I'd like to live abroad. Maybe I'll be there with a Latino boy? (*Laugh)*. Here Adamaszek, p. 8

Dominika was born with autism. She stated that:

The people like me felt isolated, withdrawn and I was such a kind of person, too. Before I was 6 years old, I couldn't speak. I was gradually learning how to be in touch with others. I graduated from a vocational school for gardeners. I like drawing. I'm keen on drawing faces and self-portraits of

people who are familiar to me. Through showing emotions in the faces, I could stay in touch with the outside world. I came over here because I was impressed by theatre. I have no idea about what's going to happen in five years. I dream of leading an ordinary life, just as common people do. And to get a job, too. Adamaszek p. 8

Michał is one of the most experienced artists. . He has participated in Lublin *teatroterapia* workshops for 18 years and he reports:

You know, the thing I'm extremely proud of is that I can find my way to the place and to come back home by myself. I know by heart several bus and trolleybus city lines and the timetables. When I began to attend workshops, my father usually gave me a lift. And some days a few people sat very close to me and started talking but I didn't say a word. At the beginning I was afraid of the stage. And suddenly I could be launched into the air, like a rocket, or something. I felt like an adult, independent person. Now I'm playing with acting. I know what I'm supposed to perform and I add something else which is mine to it, even though a director doesn't need that. What will I be doing in five years? I'm here and I'm very likely to be where I'm now. My dream is to become a bridegroom. But nobody will ever let me do it, you know, because I must face major limitations. Adamaszek p. 8

Agnieszka, who has been engaged in Lublin *teatroterapia* workshops for 10 years, says:

> I used to go to a therapeutic high school, but I didn't even try to take the secondary school-leaving exams. I don't know why, but when I'm giving interviews, I usually stumble a bit, I really don't know what to say. On the stage I'm different. I came here, because I was curious to know. Theatre made me feel independent. I go back home by myself, I don't need to be led by anybody. I've got my key to the apartment, nobody needs to wait for me. Mum and grandma, I've lived with them, they could trust me. And when they saw me performing in *The Deep End* they were terribly happy. I feel fine here at the workshops, I don't know if I wish to be somewhere else in five years. I dream of being independent, If I could only cope with real life problems, without the help of my mum and grandma.

Last but not least is **Arthur.** He has participated in the workshops for three years. In the past he used to live with his family in the U.S. Arthur is diagnosed with Down Syndrome. He cannot speak. M. Pietrusza-Budzyńska tells his story with admiration:

> He loves posing for his shots and playing his role in the theatre. When he's waiting for cues from a director, he can get them right. He can't speak but it doesn't mean that he can't think…We've discovered that he could be a fantastic actor. At first, he played second fiddle to other artists during performances, but suddenly he could even reconstruct the events that he observed while his colleagues were performing on the stage. We took him on for *The Deep End* show because he could understand theatrical space perfectly. It is easy to see that he has acquired good habits and has learned how to behave properly in everyday settings. When he is in a restaurant he can call for a waiter. (Adamaszek, 2013, p. 9).

In summary, these narratives suggest that during their participation in *teatroterapia*, the disabled actors learn to move freely about the stage, and become increasingly focused on the tasks assigned to them. Furthermore, they are able to transfer some of their theatre experience to their everyday lives. Their success may bring about changes in their attitudes and behavior. The audience learns as well; regular spectators may become more emotionally engaged with the disabled actors, and may change their perspectives on disability, so that they become more supportive of social inclusion and more willing to recognize its true value.

Conclusions and recommendations

The life histories of the participants prove that each of them has experienced positive changes in terms of behavior, personality and social functioning. They have become more independent, socially competent, responsible, courageous and open-minded. Moreover, their involvement with the theatre has made them more goal-oriented. They have learned how to cope with everyday problems and to reach their objectives. It is obvious that they allow themselves to have personal dreams, which are usually connected with Lublin *teatroterapia* workshops.

Hence, it appears that disability theatre is professional by nature. Its high artistic and cultural content make for some memorable performances. If *teatroterapia* draws our attention to this dimension of artistic activity, and if we accept it as a necessary component of culture, we will gradually change our attitudes towards disability. It is certain that this process has not yet been completed. Everything that has been achieved so far needs popularization. The process adopted by the Lublin *teatroterapia* workshops should be explored further, and applied in wider contexts, because it helps individuals with cognitive challenges to participate more fully in society and culture. We are convinced that disability theatre may reach greater recognition as a part of the professional, cultural scene. However, we should remember that theatre is an exclusive branch of art. Therefore, it is unlikely to become accessible to everybody. Nonetheless, as this paper suggests, those disabled who are engaged in theatrical activities encourage us to believe that barriers to fuller social participation can be overcome.

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Appendix

The repertoire of plays in which intellectually handicapped actors have participated, in Lublin *teatroterapia* workshops, is listed below:

- *The World Can't Believe These Tears,* by Maria Pietrusza-Budzyñska (1996).
- *Labyrinth,* , by Jacek Kasprzak (1997).
- *A Girl With a Box of Matches,* by Hans Christian Andersen (1997).
- *M Like…* , by Maria Pietrusza-Budzyñska (1998).
- *GO…*, by Edward Gramont (1999).
- *True Confessions in Wood,* by Jan Wilkowski (2000).
- *Dell'arte for…*, by Maria Pietrusza-Budzyñska (2001).
- *Country,* by Maria Pietrusza-Budzyñska and Jolanta Grabowska (2003).
- *Hamlet* (participation in the performance), by William Shakespeare (2004).
- *Isadora. The Story of a Woman,* by Maria Pietrusza-Budzyñska (2006).
- *On the 13th Day You Can Enjoy Spring Even in December,* by Maria Pietrusza-Budzyñska (2008).
- *The Painted Bird*, by Jerzy Kosiñski (2010).

Alchemical Creation: The Art of Transformation in D.H. Lawrence's *St. Mawr*

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Abstract

This paper explores a creative interpretation of D. H. Lawrence's novel St.Mawr. Throughout the centuries, and across cultures, the presence of a distinctive horse (or horses) in a literary text—and more recently in films — results in what appears to be an unvarying outcome: the restoration of equilibrium and wholeness in situations where balance and a sense of totality has been lost. Powerful illustrations of this phenomenon in Western and Eastern cultures are the medieval epic poem *El Cid*, Heinrich von Kleist's *Michael Kohlhaas*, Leo Tolstoy's *Kholstomer*, Girish Karnad's *Hayavadana*, Akira Kurosawa's *Kagemusha*, or the recent theater hit (originally written as a novel) *War Horse*, by Michael Morpurgo. D.H. Lawrence's *St. Mawr* (1924) belongs to this tradition, but whereas in the previously cited texts the relevance of the horse pertains to other themes—such as power, collective identity, the role of performance in human life, or the tragedy of war—the distinctiveness of Lawrence's text lies in the horse's centrality in the psychological transformation of one individual: Lou Witt. I am currently working on a book-length project that will include the cited texts and others showing, from a transcultural and trans-temporal perspective, how the centrality of horses in literature and film systematically responds to the same causes. Clearly, authors throughout history have validated what V.A. Kolve says about the uses of the horse in the Middle Ages, namely, that it is a "central image" through which human nature can be explored (137).

Text overview

In D.H. Lawrence's *Saint Mawr* (1923), Lou (Louise Witt, or Lady Carrington), an American in her 20s, and her husband Rico (Henry Carrington) enjoy social success in English society in the 1920s. Strangely drawn to visiting the stables near her house in London, Lou meets a horse, Saint Mawr. The horse's presence triggers in Lou the realization of the profoundly unsatisfactory life that she is leading. This dissatisfaction pertains to both her inner world, and her relationships with her husband and with society. After meeting the horse, Lou is propelled on a journey of psychological growth culminating in a decision to leave London and return to her native America. There she realizes an expanded version of herself and achieves a higher level of consciousness. In America, Lou finds a place that she sees as sacred—a ranch called *Las Chivas*—whose topography and history symbolically mirror the inner process that has led her in the direction of psychic integration.

Although criticism of *St. Mawr* reflects awareness of the importance of the horse, and even of the text's psychological dimension,[14] a new emphasis on St. Mawr, his symbolic value, and the

[14] Although I shall make reference throughout this essay to aspects of how St. Mawr has been perceived, three classic works of criticism illustrate the critical opinions about St. Mawr in Lawrence's text. F.R. Leavis, who considers *St. Mawr* a work of genius (225), sees the horse as an embodiment of "spontaneous life" and a factor of consciousness and depth in the novel (227-31). Although Eliseo Vivas thinks that *St. Mawr* is one of the "worst" novels by Lawrence, he also affirms that the horse is a "genuine symbol" (182). Finally, for Graham Hough, who thinks that the novel is "not an authentic piece of work" (180), the horse is an "unmodulated… symbol of primitive energy" (182). The only psychological study on *St. Mawr* that I am aware of that makes the horse relevant is by Courtney Carter. In her essay, she shows that the horse is one of the three images that unify the text—the other two being water and fire.

psychological process that his image unleashes is necessary if we are to understand Lawrence's text more deeply and from a creative stance. The emphasis that I will place on the centrality of the horse in Lawrence's text suggests, for the first time, that a true metamorphosis—that is, a double quality indicating transformation and growth within a pattern of continuity—between St. Mawr and the New Mexico landscape occurs after Lou leaves Texas, and that such a metamorphosis brings coherence and unity to Lou's psychological development and to the novel as a whole.[15] As we shall see, the transmutation of horse into land is based on the common symbolic treatment granted to both entities in the text: their shared mysterious and paradoxical characteristics—as they are associated with light and darkness, goodness and evil, life and death—and by their "numinosity," that is, the quality by which an entity becomes both divine and diabolical for the person under its spell (Walker 32). Intimately connected with St. Mawr's metamorphosis is an element of considerable hermeneutical consequences: the narrative language used in the novel changes according to the stage of transformation experienced by Lou Witt, from a temporal language before arriving in Las Chivas to a spatial language after that point.

Second, a new interpretive prism is necessary to fully appreciate Lou's process of transformation. To that end, I suggest that the character's psychological development follows the pattern of the alchemical *opus*. Although alchemy has been employed in the interpretation of other Lawrence's texts—such as *The Plumed Serpent* (Montgomery and Cowan), or *The Rainbow* and *Women in Love* (Whelan)—it has not been used thus far in the analysis of *St. Mawr.* Carl Jung saw alchemy as a metaphor for psychological change, and his views on the subject will inform my interpretation of *St. Mawr*. We know that Lawrence was familiar with both alchemy and Jung.[16] This approach will demonstrate, during the last alchemical phase, how the conscious and the unconscious, as well as spirit and body are fully integrated into Lou's process of individuation.

In what follows, I shall address some of Jung's important psychological concepts that will help to explain why Lou begins her journey of psychological transformation. After that, I shall begin the analysis of Lou's journey according to the four essential stages of the alchemical process.

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[15] The role of St. Mawr in the text is also key in clarifying the alleged dissociation between the English and the New Mexico parts of the novel once the horse physically disappears from the narrative after Lou leaves Texas. Critics have positioned themselves on both sides of this issue. Vivas (152, 162), Father Tiverton (164), and David Cavitch (161) have argued against the continuity between the English and the American sections of the novel, while Frederick McDowell sees the continuity between both parts based on the idea that Lou has seen Pan in both the horse while in England and the landscape while in America (96, 99). As for the disappearance of St. Mawr after Texas, Alan Wilde thinks that the horse's function becomes "exhausted and superseded" (168). Innis sees how St. Mawr's energy is present in the animist landscape of Las Chivas (112).

[16] Lawrence writes on occultism, theosophy, and alchemy beginning in 1917 (Montgomery 168) and he read Jung's *The Psychology of the Unconscious* in 1918 (Cowan182). For Tindall, Lawrence became familiar with occult literature between 1912 and 1915 (134) but, according to Whelan, Lawrence read occult material in October of 1908 (104). The most influential thinkers of the occult for Lawrence were Madame Blavatsky—one of the founders of theosophy and the author of "Alchemy in the Nineteenth Century"—and Frederick Carter. Lawrence found Blavatsky's writings "marvelously illuminating" (cited by Montgomery 35). Whelan adds two more influences: Annie Bessant and Eliphas Lévi (105-6). For Robert Montgomery, Lawrence was drawn to alchemy because it provided him with a symbolic language that confirmed his own ideas (191), while Cowan says that alchemy was for Lawrence a metaphor for "spiritual transformation and vital renewal" (185). As I have mentioned, both Montgomery and Cowan have analyzed *The Plumed Serpent* from an alchemical perspective. While Montgomery draws from Jakob Boehme and Titus Burckardt, Cowan uses Jung. Although Lawrence could not read Jung's writing on alchemy, "Jung's discussion of alchemy as the source of a number of these great archetypal symbols provides a useful context for understanding Lawrence's adoption of […] alchemical imagery" (Cowan 182). Whelan, on his part, has used alchemy in his analysis of *The Rainbow* and *Women in Love* as part of a totalizing approach that includes the convergence of several orders of reality: the mythic, the psychological, the ontological, the metapsychological, and the metaphysical.

I. *St. Mawr* and analytical psychology

In Jungian terms, human beings become Self-actualized as psychological individuals through a process of psychic development called "individuation." In it, the "ego"—or the center of consciousness—and the unconscious approach wholeness through a process in which symbols make possible the disclosure of contents of the unconscious that were previously hidden (Stein 177, 233). In Lawrence's novel, first St. Mawr and later the contents of a "sacred" place become the essential symbols that trigger and guide Lou's process of individuation. Key unconscious forces of her psyche become progressively more conscious as Lou moves toward a greater degree of psychic integration.

The process of individuation is led by what Jung considers the primal archetype,[17] a "field of structure and energy" shared by all human beings called the Self (Stein 152). Faced with the risk of fragmentation, the Self acts to hold the psychic system together "in balance," "interrelated," and "integrated," as "a transcendent center that governs the psyche from outside of itself and circumscribes its entirety" (Stein 168). The Self adjusts and orders the psyche through compensation, and it helps the subject to get in touch with a wider reality than the everyday, more practical functioning of ego-consciousness. Essential characteristics of the Self are that it presupposes the paradoxical presence of simultaneous and opposed truths (Miklen 8-9), and that it can be experienced as what is known in alchemy as *mysterium coniunctionis*, or a union of opposites, which I shall discuss later in this essay. In *St. Mawr,* Lou becomes progressively more Self-centered as she assimilates different aspects of her unconscious, such as her "shadow" or "*animus*." The "centering dynamics" of the Self act on Lou and lead her toward conscious individuation in a journey that follows the symbolic four essential stages of the alchemical process. In fact, in *Mysterium Coniunctionis* Jung claims that: "the entire alchemical procedure […] could just as well represent the individuation process of a single individual" (cited by Edinger 2).

In the case of Lou Witt, the centering dynamics of the Self archetype begin after she sees St. Mawr as a "vision" (50). This vision of St. Mawr is that of an "archetypal image" that "constellates" (or stimulates) the archetypal energy of the Self archetype.[18] As a generative image, St. Mawr stimulates archetypal power inherent in Lou. In turn, Lou's mind projects onto the horse the energy that translates an unconscious "inner problem" that, without the vision of the horse, would remain obscure and forever unprocessed. Like an alchemist with respect to matter, Lou expels a subjective content into St. Mawr, an object of experience because the unconscious is seeking expression in an embodied object.[19] Furthermore, as Franz states, archetypes project, and Lou's reaction to the image of St. Mawr clearly can be seen as a projection of the Self:

The fact is that I suddenly find myself in the situation of projecting […]. The Greeks did not say 'I have fallen in love,' but 'the god of love shot an arrow at me' […]. And that is how it really happens—one finds oneself being shot at. So one can therefore speak of the archetype of the god of love. Eros is Hermes, it is a symbol of the Self, or of the totality, which makes the projection […]. If I find myself in a projection situation, that is an arrangement by the Self. (118)

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[17] Unlike physically-based "instincts," which are "modes of *action*" (Jung, 10: par. 273; my emphasis), "archetypes" are spiritual and are "uniform and regularly recurring modes of *apprehension*" (Jung, 10: par. 280; my emphasis*)*. Archetypes are inherited, unknowable, and unconscious forms that become knowable and conscious through "archetypal images," which are contents from the world of conscious experience and manifest themselves in visions, dreams, or fantasies (Walker 13). The "Self" in Jung's psychology is always capitalized. As Stein says, the Self "is Jung's God term" (102). My thanks to the Jungian psychologist Dr. Michael Kaufman for reading and commenting on this essay.

[18] Archetypes are irrepresentable, knowable only through their effects, while archetypal images are accessible to consciousness (Walker 13).

[19] Later in the novel she will do the same with respect to the sacred place in New Mexico

On the one hand, in order to shape her world, Lou projects onto St. Mawr the images and categories of her unconscious; on the other, St. Mawr "mirrors" her inner situation, becoming the object of her "fascination"—in fact, of her "love": "she was already half in love with St. Mawr" (48). After the encounter between inner and outer energies, the subject begins to translate her internal difficulty into one she can "interact with and reflect upon" (Henderson 1-2).

Interaction and reflection lead Lou Witt to the progressive, creeping sensation of how insubstantial and, above all, *unreal* her life is with her husband, Rico: "her life with Rico in the elegant little house, and all her social engagements seemed like a dream" (47). Mysteriously, Lou becomes powerfully attracted to horses to the point that "the *substantial reality* [of her life] […] was those mews in Westminster, her sorrel mare" (47; my emphasis). Horses are the *real* ingredient of her life and the object of her projections. They, and what they represent, become the object of *fascination* for Lou: "she had never had the faintest notion that she cared for horses and stables and grooms. But she did. She was fascinated" (47). When she sees St. Mawr, his presence strikes her "like lightning," "unexpectedly," as Jung says in regard to how archetypes impact people (Jung, *Mandala* 9). Her experience is spiritual, and it stimulates powerful emotions: she was "a woman haunted by love" (54), and she cries uncontrollably because, in that moment, the ego cannot manage the inflow of energy brought about by the archetypal image.

The fact that when Lou feels *love* for the horse when she sees him suggests both that she is on a path of knowledge—"you can only get knowledge through love" (Franz 116)—and that when Lou approaches St. Mawr the projection moves quickly to the realm of the archetypal, [20] as she feels his "vivid, hot life! She pauses, as if thinking, while her hand rests on the horse's *sun-arched neck*. Dimly, in her weary young-woman's *soul*, an *ancient understanding* seemed to flood in" (50; my emphasis). The power of raw, instinctual life is affirmed—the "vivid, hot life"—as soon as Lou is close to the horse. Then, when she lays her hand "on the horse's sun-arched neck"—a mandala-like symbol of the Self—her soul arrives at an apprehension of an "ancient understanding." This understanding transcends the realm of the instinctual, it is spiritual, (of the "soul") and primordial ("ancient") and, as we know, it strikes her as an archetypal experience does: "like lightning."

Meeting St. Mawr is also a numinous experience. As I have previously mentioned, numinosity indicates the possession of God-like and demonic qualities. Thus, St. Mawr is both divine and diabolical: "a god" (51), and a "demon" (51). Because what strikes Lou is an archetypal image of the Self, her whole being is affected, not only her ego: "It thrusts the ego aside and makes room for a supraordinate factor, the totality of a person, which consists of conscious and unconscious and consequently extends far beyond the ego" (Jung, *Mandala* 9). Indeed, Lou's archetypal experience will be relevant to her entire personality ("supraordinate"), to the integration of the conscious and the unconscious.

In brief, in its compensatory *modus operandi,* the Self leads Lou through the vision of the archetypal image of the horse to begin a process of individuation. Lou is open to the "spiritual goal toward which the whole nature of man strives" (Jung cited by Stein 101), and she begins the private, healing adventure that leads her to develop her psychological potential as she sees in the eyes of the horse the "truth of life," the possibilities of "joy and suffering" (Romanyshyn 36). She still does not understand the full meaning of her acceptance of this challenge, but her need to appropriate what the mystery of St. Mawr represents—"she wanted him to belong to her" (50)—will lead her to a return to

[20] Although the text clearly and repeatedly states that Lou falls in love with St. Mawr, no critic, to my knowledge, has attempted to fully integrate this textual *fact* in a comprehensive interpretation of *St. Mawr*. From a Jungian, alchemical perspective, however, falling in love with the horse describes the kind of archetypal experience that causes Lou to initiate her journey. Additionally, the horse represents the various stages of *animus* for Lou, as we shall see.

nature, not in a "regressive" fashion, but in a "restful" one in which she abides by her own, inner laws (Hannah 5).

II. The Alchemical *Opus*

Jung noticed the coincidence between the ancient alchemists and the modern human world of images, and he concluded that the study of the alchemists' symbols would lead to a better understanding of contemporary people. Alchemical symbols transcended individual or culture-specific experience to become archetypal. Thus, the investigation of the symbolism and imagery of alchemy goes beyond temporal constraints to study processes of psychological transformation, the inner process of individuation, and the human unconscious in the present time.

As for the goals of alchemy, they have been described in various ways. Its function for Thomas Aquinas was to transmute imperfection into perfection (Taylor 99). Paracelsus thought that its goal was to heal the soul by bringing it into harmony with the body in order to "restore health by joining together 'nature and man'" (Henderson 17). For Edinger, the objective of alchemy is a search "for the supreme and ultimate value" (7). Other perspectives on alchemy's objectives include: the realization of the soul's light by transforming base substances into higher materials (gold, the philosopher's stone, the universal elixir of life), transfiguring matter into spirit, or converting the contents of the alchemist's psyche via his own projections into matter. These goals "may be seen as metaphors for psychological growth and development" (Samuels 12), while the philosopher's stone, or *lapis*, becomes a reflection of "the archetype of the Self" (Samuels 136).

A. Alchemical Horse

St. Mawr both triggers Lou's process of psychological transformation and guides the process until the point at which Lou arrives in America, where she overcomes this projection. Henceforth, the sacred place of Las Chivas becomes the new indicator and guide of her development. From the outset, the text foreshadows this transmutation between horse and place when it establishes the analogy between St. Mawr and a crucial element of the New Mexico ranch—flowers: "The horse was really glorious: like a marigold" (53). Of course, the colors of marigolds are yellow, orange, and gold—the colors of the last two phases of the alchemical process in which the metamorphosis between the guiding entities, horse and place, occurs.[21]

Because the horse incorporates some of its key features, the alchemical procedure is the first thing that St. Mawr represents in the text. Like the most important figure in alchemy, Mercurius, who represents many contradictory characteristics simultaneously, St. Mawr possesses opposing attributes as well: he is identified with "liquid metals"—"red-gold liquid" (48)—with evil and goodness, power and sensitivity, threat and reassurance, danger and vulnerability, life and death, darkness and light, servant and master. Furthermore, he is presented as both above humans (a numinous image for Lou) and below humans (he does not need the kind of "consciousness" that Lou, as a human, misses in Texas).

Throughout the text the horse is connected with the key elements in alchemy: fire—"fuel of the alchemical work and the main agent of its continuous process of transmutation" (Hamilton, "Alchemical" 4)—and the heat that emanates from that fire and must be present during the four stages of the *opus*. To wit, *St. Mawr* speaks of the "invisible fire" (48) and the "vivid heat" (49) that came out of the horse, his "mysterious fire" that melts away Lou's past life and world (50), the "fire" of St. Mawr's vitality (61), and the "great burning life in him" (80).

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[21] The importance of flowers in *St. Mawr* cannot be underestimated. In fact, Dan Stiffler argues that it is the flowers found on both sides of the Atlantic that unify *St. Mawr* (87).

Another central element of the alchemical process, the colors characterizing the different phases of the *opus*—black, white, orange/yellow, and gold—are the colors that the text associates with St. Mawr, as the analysis of the stages of the *opus* will show. In addition to the association of St. Mawr with these colors, fire, and with Mercurius' contradictory characteristics, there is a clear link between the fundamental alchemical metaphor—*sol niger,* or "black sun"—and St. Mawr. The *sol niger* image implies the duality between light and darkness that St. Mawr embodies in the novel. Thus, the text speaks of St. Mawr's pupil as "a cloud within a *dark fire*" (61; my emphasis). This association with *sol niger* establishes the connection between St. Mawr as image and the Self since this essential archetype is, as we know, about totality and wholeness; it rules out a one-dimensional understanding of the psyche as defined merely by "light" with exclusion of the equally essential "darkness."

Finally, St. Mawr is associated with the *ouroboros*, the circular snake that Jung saw as the central mandala figure and "symbol for the integration and assimilation of the opposite, i.e. of the shadow" in alchemy (Jung, 14: para. 513). For Franz, the *ouroboros* represents "the symbol of the alchemical work as a circular, self-contained process" (41); "the snake which eats its own tail" is the guardian of a "world beyond our world" (60)—the world of possibilities that St. Mawr helps Lou to envision and pursue. The text links St. Mawr to circles and snakes at various points: his head is both "handsomely round" (48) and "snake like" (54), a strange head evoking "something of a snake" (55). Like the *ouroboros*, who vanishes and then is reborn, St. Mawr disappears as a horse and reappears in a different form (the New Mexico ranch) where the same essential opposites that characterize the horse re-appear to be united in Lou's *coniunctio opositorum*, or marriage of opposites, during the *rubedo* phase. Finally, shortly before Lou makes her decision to move forward, away from Rico, she finds a dead "'gold-and-yellow' snake" (97) that not only signals the death of her English life, but also foreshadows the great steps ahead: her move to America with St. Mawr, and her outgrowth of her projection on him before she faces the last, golden phase of the alchemical process.

B. The Colors of the *Opus*

The features characterizing the realization of and transition between stages of the symbolic alchemical process do not always occur in a neat order in *St. Mawr*, as is to be expected from the protean nature of modern literature and from the uneven unfolding of any psychological process. In what follows, I will cover the four phases of the *opus—nigredo, albedo, citrinitas,* and *rubedo*.

1. Black: *Nigredo*

"In his big black eyes there was a lurking afterthought" (*St. Mawr* 48).

Following the pattern of the symbolic alchemical procedure, the *nigredo* phase of the subject's process of individuation begins with a reduction to *prima materia,* in which the psyche is metaphorically placed by fire in a situation conducive to transformation and renewal. Psychologically, the reduction to *prima materia* leads to a period in which opposing forces enter a situation of chaos and conflict with each other, and consciousness begins to be aware of those conflicts. This is a period when the subject experiences grief, pain (Hamilton, "Alchemical" 5), and a sense of personal deadness that entails the end of a materialist perspective, then becoming open to a life of the imagination and greater psychological depth (Marlan 83). It is in the *nigredo* that the "confrontation with the shadow" occurs (Samuels 14), and it is the phase in which the darkness of the *sol niger*, or "black sun," manifests itself first. Finally, the *nigredo* phase initiates the process of reconnecting with the inner feminine—*anima*—or inner masculine—*animus.*

In alchemy, change and transformation can only happen from a homogeneous, primordial, and chaotic matter that was believed to be the basis for the unity of nature—although the fact that such matter cannot be found in nature made Jung believe that it is a metaphor for transformation itself. In fact, for Aristotle, *prima materia* was a way to designate the "indeterminate power of change" (cited by Edinger 9). Psychologically, the reduction to *prima materia* by fire and the subsequent experiences

characteristic of the *nigredo* phase begin for Lou as soon as she approaches St. Mawr's dark fire: "a dark, invisible fire seemed to come out of him" (48). The horse's image has a dramatic effect on her:

[St. Mawr] made her want to cry. She *never* did cry […]. But now, as if that mysterious fire of the horse's body had *split some rock in her*, she went home and hid herself in her room, and just cried. The wild, brilliant, alert head of St. Mawr seemed to look at her out of another world. It was as if she had had a *vision*, as if the walls of her own world had *suddenly melted away*, leaving her in a great *darkness*. (50; my emphasis).

The vision of St. Mawr, toward whose universe Lou will turn, brings about images of demolition, dissolution, and liquefaction of Lou's current way of being. The rock of her social persona has been cracked by the horse's fire. As if it were the metal of a literal alchemical process, her psychological world simply "melted away." Because she "never did cry," her tears are a testimony to the extraordinary experience she is undergoing: psychologically, she is entering the "great darkness" of the undifferentiated form. Her psyche is becoming *prima materia*.[22]

From the moment Lou meets St. Mawr she stops recognizing herself as part of her usual "reality," which becomes unreal and insubstantial (47): nothing is "clear nor feels clear" (60). She experiences a strong sense of displacement which results from the characteristic alchemical awareness of "tension" (61) between contrary forces that she has previously either ignored or repressed. During her transformation, and in addition to the tension between reality and unreality, Lou also becomes aware of the opposition between life and death, and good and evil. I shall discuss the tension between life and death first, and I will refer to the other pair later in this paper.

The contrast between life and death is exemplified by the schism in vitality between St. Mawr and Rico. Lou immediately experiences St. Mawr and his "fire" as the embodiment of life itself. She repeatedly feels the "vivid heat of his life…, [his] vivid, hot life!" (50), how "he burns with life" (80). Lou's projection on St. Mawr and his life transcend the level of the instinctual and, as we have seen, it entails an "*understanding*," "another sort of wisdom" (61) that makes St. Mawr such a powerful symbol of life, a life "which *never* is dead" (80-1; my emphasis). That is to say, he symbolizes a life that transcend the ephemeral existence of one person or even of St. Mawr himself, foreshadowing the symbolic metamorphosis of the horse into the New Mexico landscape. At the *nigredo* stage, however, the text contrasts the life force as embodied in St. Mawr with the death represented by the people in Lou's world, the chief representative of which is Rico. Lou feels that while St. Mawr and the "centaurs" Phoenix and Lewis represent life, Rico represents death and the ruin of everything alive because he is "afraid, always afraid of *realising*" (82; my emphasis). Lou knows that to avoid bringing to consciousness that which is unconscious in us denies wholeness and is tantamount to death.

During psychological *nigredo* the subject experiences grief and pain. For Robert Romanyshyn, the role of love in grief is paramount. As we know, when Lou meets St. Mawr, she falls in love with him (48, 54). This love for the horse is key to understanding her emotional response to loss as she laments the passing of a world where horses, and the virtues they represent, were dominant:

A great animal sadness came from him [St. Mawr] […], and made her feel as though she breathed grief. She breathed it into her breast, as if it were a great sigh down the ages that passed into her breast. And she felt a great woe: the woe of human unworthiness. The race of men judged in the

[22] Although Carter does not analyze Lou's journey using Jung's ideas on alchemy, her Jungian analysis of the guiding metaphors in Lawrence's text is convincing. Regarding this episode, she says that: "both the flood and the tears are signs that the waters of the unconscious are beginning to flow into and undermine the rigid structures of Lou's mind and world" (69).

consciousness of the animals they have subdued, and there found unworthy, ignoble. Ignoble men, unworthy of the animals they have subjugated, bred the woe in the spirit of their creatures. (103)

When Lou first falls in love with St. Mawr, her projection is unintentional—"passive" in Jung's words—since she projects unconscious aspects of herself onto him. Then, she begins to engage in what Jung calls "active" projection, or empathy, happens (Sharp 103), and it escalates taken to the point of identification with St. Mawr and the world that he symbolizes, a world where horses and humans are powerfully connected. In such a world, humans showed greatness and nobility. They were true citizens of the cosmos (Romanyshyn 25).

St. Mawr's animal wisdom leads him to feel sorrow at the state of humanity. His pain is a measure of human decadence and becomes a guide for Lou's understanding of the horse's world. She connects with St. Mawr through grief:

And the horse, is he to go on carrying man forward into this?—this gutter? […]. The horse is superannuated, for man. But alas, man is even more superannuated, for the horse. Dimly in a woman's muse, Lou realized this, as she breathed the horse's sadness, his accumulated vague woe from the generations of latter-day ignobility. And a grief and a sympathy flooded her, for the horse. She realised now how his sadness recoiled into these frenzies of obstinacy and malevolence. Underneath it all was grief, an unconscious, vague, pervading animal grief […]. The grief of the generous creature which sees all ends turning to the morass of ignoble living. She did not want to say any more to the horse: she did not want to look at him any more. The grief flooded her soul, that made her want to be alone. She knew now what it all amounted to. She knew that the horse, born to serve nobly, had waited in vain for some one noble to serve. His spirit knew that nobility had gone out of men. And this left him high and dry, in a sort of despair. As she walked away from him, towards the gate, slowly he began to walk after her. (104)

Modern humans reject the horse based on his lack of practical utility in an industrial era, but by doing so they also reject the noble spirit of the horse and, ultimately, they come to reject the best of themselves. In *St. Mawr*, one of the horse's most significant roles is to guide humans to return home: "the appeal animals have for us in our moments of sorrow is that they call us back to some earlier sense of home. In their presence, they seem to remind us that while we have lost our way, the rest of creation waits our return" (Romanyshyn 79). Listening to St. Mawr and his "animal grief" is a sort of homecoming for Lou. In a moment of recognition of the shared grief between Lou and St. Mawr, we witness one of those moments of interspecies connectedness in which an animal consciousness interacts with a human and the latter opens "to other vibrations of consciousness, other realities and the energies of other beings" (Romanyshyn 69). It is in these moments that animals and humans truly converge. These encounters with forces of nature through grief put humans in touch with their "wild" side in the sense that they cease to be constrained by the "rational" mind as they participate "in the consciousness of all creation" (Bentov 128). This is what Lou's experience of shared grief with St. Mawr means in the context of the *nigredo* experience: an opening of her previously closed mind and a reconnection with her "wild" side, with her shadow.

Much of the emphasis in the *nigredo* phase is on the shadow: "the *nigredo* of the process of individuation… is a subjectively experienced process brought about by the subject's painful, growing awareness of his shadow aspects" (Ashton 231). The development of a "persona"—of our social self—collides with our awareness of the shadow, of the "other" in us. The shadow is constituted by "hidden or unconscious aspects of oneself, both good and bad, which the ego has either repressed or never recognized" (Sharp 123-24); it has been seen as "the source of all evil," but for Jung, the shadow is also a source of "good qualities, such as normal instincts, appropriate reactions, realistic insights, creative impulses, etc." (9: par. 423). Because avoidance of the shadow avoidance is the rule within Lou and Rico's social circle, St. Mawr is Lou's main source of help in confronting her own shadow, whose incorporation makes it possible for Lou to integrate life-enhancing "repressed vitality" into her consciousness, as well as to arrive at greater self-knowledge.

In Lawrence's text, St. Mawr's darkness is the emblematic representation of the shadow. In many instances, *St. Mawr* establishes an association between the horse and the devil—the shadow: the "eyes of that horse looked at her with demonish question" (50); or "she saw demons upon demons in the chaos of his horrid eyes" (61). St. Mawr forces Lou to confront her shadow: "I'm so afraid of St. Mawr, you know" (72). The path to self-knowledge and life that St. Mawr reveals is not easy to absorb. Accepting the psyche in its *totality* is threatening because it also includes the very aspects that humans are used to rejecting in order to create a likeable persona. From the outset, Lou senses that St. Mawr "can be dangerous" (48), and the threat persists on in the text: "St. Mawr swaying with life, always too much life, *like a menace*." (95; my emphasis). However, Lou intuitively accepts from the beginning the guidance and authority of St. Mawr from the very beginning: "It haunted her, the horse […]. She felt it put a ban on her heart: wielded some uncanny authority over her, that she dared not, could not understand" (51). Furthermore, "he seemed to her like some living background, into which she wanted to retreat" (60). From the beginning, Lou decides to stay with the dark, which is an essential part of experiencing *nigredo.*

Part of facing the shadow is the "mortification experience" (Marlan 78). For Nigel Hamilton this entails "a complete letting go of the old sense of self that was identified unconsciously with the earth nature" (6). A critical part of alchemy, the metaphorical "death experience" is essential if psychological transformation is to happen. Confronting the shadow "produces at first a dead balance, a standstill that hampers moral decisions and makes convictions ineffective or even impossible. Everything becomes doubtful, which is why the alchemists called this stage *nigredo*, *tenebrositas*, chaos, melancholia" (Jung, 14: par. 708). Thus, Lou's engagement with darkness leads her to an evocative and crucial state: she feels "a curious deadness upon her, like the first touch of death. And through this cloud of numbness, or *deadness,* came all her muted experiences" (60; my emphasis). This "deadness" (81) leads to a return of the repressed, to questioning the "materialist" point of view, and to the doubts that Jung mentions about: "Now suddenly she doubted the whole show. She attributed to it the curious numbness that was overcoming her, as if she couldn't feel any more" (61).

Finally, Lou's projection on St. Mawr during the *nigredo* phase not only leads to finding "inner guidance" but also serves to put her in touch with her *animus* "leading to the first alchemical union" (Hamilton, "Alchemical" 5). *Animus* is the inner masculine in a woman, "the figure of man at work in a woman's psyche" (Samuels 23), and "the deposit, as it were, of all a woman's ancestral experiences of man" (Jung 7: par. 336). At the *nigredo* stage, St. Mawr becomes Lou's projection of the first stage of the *animus*, that is, the very embodiment of physical power and vitality (Sharp 24)—"the splendid body of the horse" (52). As we shall see later in the text, St. Mawr becomes the embodiment of higher stages of the *animus* for Lou.

2. White: *Albedo*

"Out of the everlasting dark, she had felt the eyes of that horse… containing a white blade of light" (*St. Mawr* 51)

If, in the context of the *sol niger* metaphor, the *nigredo* emphasized the darkness of light, *albedo* emphasizes the light of darkness. *Albedo* is the whitening stage, which Jung refers to as "the light of darkness itself […]. Therefore it turns blackness into brightness, burns away 'all superfluities'" (cited by Marlan 97). In Lou's *nigredo* stage, the emphasis was on the dark side of St. Mawr's archetypal image of the Self—"the devil was in him" (50). In the *albedo* phase, the horse is presented as an image of light—without abandoning its dark characteristics—channeling the process toward the ideal of completeness and totality inherent to the Self archetype. In fact, Lou sees St. Mawr as a numinous entity with his god-like attributes of light and darkness simultaneously: "What was it? Almost like a *god* looking at her terribly out of the everlasting dark […]. He was one splendid *demon*, and she must worship him" (51; my emphasis).

In alchemical *albedo* the superfluous is burned and purified through fire in the process called *calcinatio*, in which matter turns white. In this sense, St. Mawr's fire—"St. Mawr looming like a

bonfire in the dark" (65)—exposes Rico as superfluous: "Rico seemed to her the symbol of futility" (71). On an excursion to the Devil's Chair, Rico is shown as the anti-centaur who is never willing to meet St. Mawr "half way" (55), that is, to integrate one of the main unconscious aspects that St. Mawr represents—the shadow—into consciousness. In fact, Rico goes beyond bad horsemanship to brutally and unnaturally force the horse—as he always attempts to do when riding St. Mawr—to submit to his will. As Mrs. Witt says to the Vyners regarding the incident: "I saw with my own eyes my son-in-law pull that stallion over backwards, and hold him down with the reins as tight as he could hold them; pull St. Mawr's head backwards on the ground" (110). This episode advances Lou's self-awareness and she becomes more conscious and purposeful regarding Rico and "his fear, his impotence as a master, as a rider, his presumption" (99).[23] *Calcinatio* leads to "heightened spiritual awareness and purpose" (Hamilton, "Alchemical" 6). Lou comes to understands now: "Poor old Rico, going on like an amiable machine from day to day. It wasn't his fault. But his life was a rattling nullity and her life rattled in null correspondence" (114).

New clarity leads to "further purification of the psyche and a receptivity to our soul nature […]. Becoming conscious of our soul nature is the first real step in answering the question 'who am I?'" (Hamilton, "Alchemical" 6). As it usually happens in the *albedo* phase, after *calcinatio,* clarity leads to a higher perception of oneself that requires a degree of withdrawal from the world, and a recognition that the main forces are inward (Hamilton, "Alchemical" 6). Thus, Lou's "young-woman soul" (50) acknowledges the value of retreating to the desert while the "soul adheres to that which is life itself" (99). The darkness of grief is also purifying, and after flooding her soul, it "made her want to be alone" (104).

Part of recognizing one's soul, or spiritual nature, in the *albedo* phase is acknowledging, as Hamilton says, the fact that the soul was "incarnated free of worldly impressions" of the family, the environment, and society ("Alchemical" 6). To that end, Lou declares her independence from the major components of her world thus far, beginning with "the little house in Westminster, the portraits, the dinners, the friends, and the visits" (43). She is ready to give up Rico and begin breaking family ties: "she was prepared to sacrifice Rico" (55). She understands that her mother does not represent the path toward light: "I want the wonder back again, or I shall die. *I don't want to be like you*," she tells Mrs. Witt (82; my emphasis).

Her new psychic state leads her to abandon relationships and status: "She could not bear the triviality and superficiality of her human relationships […]. And she felt that it [the "questioning eyes" of St. Mawr] forbade her to be her ordinary, commonplace self. It forbade her to be just Rico's wife, young Lady Carrington, and all that" (51). Lou begins to see "what is important and what is not," or *sublimatio* (Hamilton, "Alchemical" 6), and she decides to give up wordly ties: "I shall just make a break, like St. Mawr, if I don't get out. I simply can't stand people" (138). In fact, she is already gone in spirit from the place: "She felt, strangely, as if already her soul had gone away from her actual surroundings. She was there, in Oxfordshire, in the body, but her spirit had departed elsewhere" (139). Her decisions to save St. Mawr from being gelded and to go to America with him represent the saving of her own soul's integrity, and they ensure a steady progress in her process of transformation. Lou's progress also illustrates how the power of St. Mawr as an *animus* figure transcends the role of being an "embodiment of physical power" and moves to another *animus* stage, a figure inspiring "initiative," "the capacity for planned action," and "independence" (Sharp 24).

[23] Rico's falls from St. Mawr can be seen as part of an age-old tradition in which a fall from a horse indicates "pride" (Kolve 240). In this sense, St. Mawr's breaks would expose Rico's pride and presumption, and also the pride of modern society, which, as Lou says, deems the horse and what he represents as superannuated. In this sense, St. Mawr connects with the myth of Pegasus. When his rider, Bellerophon, full of pride thought proudly that "he could take his place with the immortals," and attempted to make Pegasus to take him to Olympos, "the horse was wiser […], and he threw his rider" (Hamilton, *Mythology* 137).

After *nigredo*, Lou experiences purification, awareness of her spiritual nature, and a degree of withdrawal from the world leading to greater consciousness: "the soul at last becoming conscious of itself" (Hamilton, "Alchemical" 6). Lou comes to project awareness and purpose. She looks "so much younger and so many thousands of years older than her mother" (77).

3. Orange: *Citrinitas*

"Such a marvelous colour! Almost orange!" (*St. Mawr* 52)

In *Citrinitas*, a strong light and fire makes orange and/or yellow the dominant colors. Psychologically, this is a spiritual, disembodied phase of the process, where a "key knowledge comes to the subject" (Hamilton, "Alchemical" 7). The key knowledge that Lou reaches at this stage of her process of individuation has to do with the relationship between reality and evil, and the meaning of the latter. In this phase, Lou articulates her understanding of possessing a "real mind," and the difference between negative and positive evil. There is "vulgar evil" (101), destructive evil, or a refusal to confront the shadow. Lou becomes aware of "evil, evil, evil, rolling in great waves over the earth. Always she had thought there was no such thing—only a mere negation of good. Now, like an ocean to whose surface she had risen, she saw the dark-grey waves of evil rearing in great tide" (98). This kind of evil is opposed to the evil that St. Mawr embodies, a "positive evil," the creative evil that is identified with the shadow—which for Jung, as we know, is also a source of positive qualities, insights, and creativity. Lou articulates how this knowledge has come to her:

But some strange thing had happened, and the vast, mysterious force of *positive evil* was let loose […]. It had come to her in *a vision*, when she saw the pale gold belly of the stallion upturned, the hoofs working wildly, the wicked curved hams of the horse, and then the evil straining of that arched, fish-like neck, with the dilated eyes of the head. Thrown backwards, and working its hoofs in the air. *Reversed*, and purely evil. (98; my emphasis).

Positive evil is the darkness of the dark sun—the *reversed* side of the sun, the shadow of our psyche—a metaphor that remains in force during *citrinitas* as the Self guides the psyche towards totality and wholeness in the alchemical process. It cannot be separated from light, in the same way that St. Mawr, a symbol and image of the Self, is both god and demon in Lou's projection. Staying with the positive evil of the shadow, whose source for Lou is St. Mawr, leads to transformation and psychic integration. On the other hand, staying in the world of *persona* without confronting the shadow constitutes true evil because it undermines "everything real" (99). Thus, Rico and his social circle are shown as "glib," people whose only concern is having "a good time," sticking "to the rules of the game," and not doing "anything that would make a commotion," while constantly showing that "there is nothing to believe in, so let us undermine everything" (99). Lou sees mankind caught up in an ocean of this kind of evil: "they had fallen under the spell of evil […]. And they were all out on the ocean, being borne along in the current of the mysterious evil, creatures of the evil principle" (98). Then, she sees "people performing outward acts of loyalty, piety, self-sacrifice. But inwardly bent on undermining, betraying. Directing all their subtle evil will against any positive living thing. Masquerading as the ideal, in order to poison the real" (99).[24] Lou is becoming conscious of an essential knowledge that leads her to her own transvaluation of values: what seems good is evil; what seems evil to most people in her world (St. Mawr)—i.e., "that horse is cruel, cruel, evil" (108)—is good because it is truly vital and does *not* "undermine the natural creation" (100), but symbolizes it.[25]

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[24] Frank Kermode, like the rest of the critics that discuss the theme of evil in *St. Mawr*, does not differentiate between the two kinds of evil that are clearly articulated by Lou (112).

[25] Lou's transvaluation of values is rooted in words by Lawrence himself in texts such as "Study of Thomas Hardy": "The vast, unexplored morality of life itself, what we call immorality of nature, surrounds us in its incomprehensibility, and in the midst goes the little human morality play, with its queer frame of morality" (Cited by Innis 17).

Thus, Lou redefines the notion of evil and articulates a course of action to resist it: "the individual can but depart from the mass, and try to cleanse himself" (99). As she fights "to preserve that which is life in him from the ghastly kisses and poison-bites of the myriad evil ones" (99), Lou is reaching the core of her own transformation. She is arriving at this inner knowledge, as usually happens in *citrinitas,* not "by study, reflection or deep thought," but by "direct revelation" (Hamilton, "Alchemical" 7). In fact, as we know, she states her mistrust for what is conventionally understood as "mind," rejecting intellectual cleverness: "one gets so tired of […] mind, as you [Mrs. Witt] call it" (79); she "would hate St. Mawr to be spoilt by such a mind" (79). But she also rejects primitivism: "I don't admire the cave man, and that sort of thing" (80-81). She wants the mystery of nature to be in both animals and humans: "He [St. Mawr] seems a far greater mystery to me, than a clever man. He's a horse. Why can't one say in the same way, of a man: *He's a man?* There seems no mystery in being a man. But there's a terrible mystery in St. Mawr" (80). Finally, she redefines real mind when she asks Mrs. Witt: "But what *is* real mind?" and her answer is that to begin with, a good mind is "a good intuitive mind […]. To know things without thinking them" (80; my emphasis)—and that mind is what has led her in *citrinitas* to her inner knowledge regarding the need for "real" good and "positive evil."

Finally, during *citrinitas,* the subject experiences a strong sense of the oneness of creation, of the "complete dying of the dualistic state of mind that perceives subject and object as separate" (Hamilton, "Alchemical" 7). Implicitly and in a less conscious way, Lou started to experience this rejection of dualism when she felt extremely connected with St. Mawr through grief during the *nigredo* phase. During this later stage, she articulates her rejection of dualism by recognizing that the source of life is the same for animals and for humans, and that humans must "get our lives straight from the source, as the animals do" (81).

4. Red: *Rubedo*

"And she was startled to feel the vivid heat of his life come through to her, through the lacquer of red-gold gloss" (*St. Mawr* 50)

In *rubedo*, body and soul come together. After the more spiritual *citrinitas*, re-incarnation at a higher level—as a new integration of body and soul—becomes the central objective and is an indication of a higher stage of consciousness. The need to be embodied is what indicates that a higher level of spiritual completeness—and psychological individuation—has been reached. As Hamilton says, at this stage, the psyche needs to be "materially spiritualized" ("Alchemical" 8). In Franz's words: "Even after the greatest process of spiritualization, there is always something which resists and wants the earth" (132). The transcendent Self that expresses the conscious and unconscious workings of the psyche is experienced as a mysterious conjunction of opposites, as a *mysterium coniunctionis*—or *coniunctio oppositorum*. The *coniunctio* experienced by Lou brings her integration of both conscious and unconscious and of body and soul. The classical version of the latter pair is the *hierosgamos*, or sacred marriage of the opposites, where matter becomes spiritualized, and the spirit becomes concrete (Samuels 14, Franz 258-59). This alchemical marriage leads to enlightenment: the understanding of our oneness with the earth, and an awareness that constitutes the culmination of the *opus*: the philosopher's stone, or *lapis*, Self-realization in the process of individuation.

During *rubedo*, a place densely populated by symbols of the Self takes up the role of St. Mawr in Lou's process of transformation. The heat in the *rubedo* phase is even hotter than in the previous phases, and its clearest manifestation, in accord with the substitution of the New Mexico landscape for St. Mawr, is the image of "the horses […] struck by lightning" (163) that we read about when Las Chivas is being introduced. Before Lou arrives at the ranch, the Texan environment proves beneficial for St. Mawr. He is pleased by the Texan cowboy's "rough handling" (151), and he recovers his lost sexual instinct. For Lou, however, the Texas experience is not wholesome. While she recognizes that visually the place is "wildly vital" (150), she cannot identify with the lack of "substance of reality […]. No deeper *consciousness* at all" (150; my emphasis). This vital environment, devoid of "consciousness," works for St. Mawr, who can now be a horse, but Lou overcomes her projection

onto St. Mawr—"the illusion of the beautiful St. Mawr was gone" (157)—as he ceases to stimulate the archetypal power that he did during the previous three stages of the process. However, it is at this point that the text makes possible the metamorphosis between St. Mawr and Las Chivas, and the sacred place acquires the properties that have characterized the horse: mystery, paradoxes, and numinosity. [26]

In *rubedo*, the subject tries to live a life more in accordance with his/her true nature (Hamilton, "Alchemical" 8). Lou, who has become much more aware of her need for "deeper consciousness" while guided by the Self archetype—and consequently is "caught up in big ideas and visions" (Stein 100)—formulates her goals clearly: first, "she wanted to escape from the friction which is the whole stimulus in modern social life. She wanted *to be still*: only that, to be very, very still, and *recover her own soul*" (157; my emphasis); second: "I want to learn. I am out to know" (173). Becoming more deeply conscious of unconscious energies and of the marriage of body and soul leads her to face the recovery of her soul through knowledge and awareness. From the moment she sees the New Mexico landscape, her own *coniunctio* is to be intimately connected to *place*.

a. Sacred Place and Narrative Language

Lou declares the place whose name is clearly reminiscent of Pan—the Greek god with the horns, hindquarters, and legs of a goat—Las Chivas (The Goats) "sacred to her" (160). She can feel the intense heat of *rubedo* there: "the hidden fire was alive and burning in the sky […] [as] she felt a certain latent holiness […]. 'For me,' she said […]. '*For me, this place is sacred. It is blessed*'" (159-60; my emphasis). Lou feels the ecstasy experience that Marghanita Laski articulates regarding sacred places: "a personal experience of great intensity which involves an inward turning stimulated by contact with some environmental condition which seems to trigger the onset of transcendence" (cited by Swan 86). Thus, as was the case with St. Mawr, Lou immediately wants the ranch to be hers: "it was the place Lou wanted. In an instant, her heart sprang to it…. '*This is the place*,' she said to herself" (160). Las Chivas possesses the features of a sacred place according to Mircea Eliade:

(a) A sacred place constitutes a break in the homogeneity of space; (b) this break is symbolized by an opening by which passage from one cosmic region to another is made possible (from heaven to earth and vice versa; from earth to the underworld); (c) communication with heaven is expressed by one or another of certain images, all of which refer to the *axis mundi*: pillar […], ladder […], mountain, tree, vine, etc.; (d) around this cosmic axis lies the world (=our world), hence the axis is located "in the middle," at the "navel of the earth"; it is the "Center of the World" (37).

The mountains circling the *axis mundi*, the sacred place, are "peering in *from another world altogether*" (165; my emphasis). They connect "earth with heaven," as Eliade suggests (37). Las Chivas also contains the "opening" between worlds: a passage through 'far-off rocks, thirty miles away, where the canyon made a *gateway between the mountains*" (165; my emphasis). The communication with heaven is established by several of the images mentioned by Eliade. Namely, the pillar and column: "the dust whirled in tall *columns*, traveling across the desert far away, like *pillars* of cloud by day, tall, leaning *pillars* of dust hastening with ghostly haste" (166; my emphasis); or the

[26] Regarding the disappearance of St. Mawr, Wilde summarizes most positions on the subject. For him, St. Mawr represented the "source" of life in England, but he becomes unnecessary in America because Lou is now "prepared to confront the source herself" (167). He also explains that St. Mawr ceases playing a role in the text because he becomes "too negative a symbol" (168). Although it is true that Lou is ready to confront the source herself, Wilde does not take into consideration that St. Mawr, as I argue in my essay, *is* that source as well; he is part of the very essence of what Las Chivas represents, and one of the reasons for this is precisely that he symbolizes the shadow, an aspect of "negativity"—the "positive evil" that I have already discussed—that is part of the Las Chivas landscape. Widmer (22) and McDowell (96) see the continuity between horse and landscape from a perspective that is not related to my alchemical interpretation of the text.

column and the tree: "The *pine-tree* was the guardian of the place […]. A non-phallic *column*, rising in the shadows of the pre-sexual world, before the hot blooded ithyphallic *column* ever erected itself […]. Past the *column* of that pine-tree, the alfalfa field sloped gently down, to the circling guard of *pine-trees* […]. Strange those *pine-trees*!" (164; my emphasis); and, the mountain and the tree: "The motor-car climbed up, past the *pine-trees,* to the foot of the *mountains*, and came at last to a wire gate, were nothing was to be expected" (160; my emphasis). Within the ranch, there is a *sancta sanctorum* protected by the mandala symbol of the *circle of pines*: "The *circle* of pines, with the loose trees rising high and ragged at intervals, this was the barrier, the fence to the foreground. Beyond was only distance, the desert a thousand feet below, and beyond" (165; my emphasis).[27] Thus, Las Chivas is presented as the "navel of the world," the "cosmic axis," or center around which is the less-sacred, less-blessed world—"our world," the modern world of action that Lou rejects. In addition to these characteristics, the sacredness of Las Chivas also results from the overwhelming presence of symbols of the guiding Self archetype. These round symbols of wholeness signifying the unification of body and soul are mandala symbols (Stein 161): "the *round* hills" (163), "the *ring* of pine tress standing so still" (163), "the *round* concrete basin" (164), "the *circling* guard of pine-trees" (164), or "the great *circling* landscape" (166).

The sacred space is also marked by a clear change in the kind of narrative language that contrasts Lou's stage of psychic development with that of other people who faced the landscape with a very different psychological disposition. In the three previous phases of the *opus*, temporal language was dominant. This kind of language stresses the importance of actions and events in which decisions are made by characters about their fates and activities. In temporal narratives, humans are in control. In *rubedo* the prevailing narrative is spatial. In spatial narratives, place acquires great importance, challenging the trepidations of "modern social life" (Kort 10), which agrees with Lou's desire "to escape from the friction [of] […] modern social life" (157). These narratives show "environments that become distinguishable from human control" (14), milieus that are a major character in themselves. In *St. Mawr,* the land clearly becomes independent from the people that inhabit it prior to Lou's arrival. This is what we see in the relationship between Las Chivas and the settlers that attempt to "tame" and "humanize" it. Lawrence's text establishes a contrast between Lou and the last of those settlers, the New England wife of a trader. Her experience at Las Chivas shows that "people cannot conquer a new land until they have made peace with its spirits" (Jung cited by Swan 75). The New England woman never makes peace with the spirits of Las Chivas—the dark and the luminous, the intelligible and the unintelligible—because she has never made peace with her own dark side, the less comprehensible part of her psyche. The unintelligibility of phenomena in sacred places is due to the dissolution of the laws of the empirical and temporal world that characterizes them (Swan 33). Thus, to the understandable obstacles found by settlers—lack of water, mountain lions, coyotes, insects, poison weeds, and even the sheer cost of transforming nature—Las Chivas becomes an "antagonist," adding other phenomena that bring together the menace and danger of the sacred place and the corresponding narrative approach.[28] These phenomena are:

Always, some *mysterious* malevolence fighting, fighting against the will of man. A *strange* invisible influence coming out of the livid rock-fastnesses in the bowels of those uncreated Rocky Mountains, praying upon the will of man, and slowly wearing down his resistance, his onward-pushing spirit. The curious, subtle thing, like a mountain fever, got into the blood, so that the men at the ranch, and the animals with them, had bursts of queer, violent, half-frenzied energy, in which,

[27] The tree is a powerful symbol in the characterization of the sacred place. The tree in Jung "symbolizes a living process as well as a process of enlightenment," it also signifies "the creative unfolding of the soul" (Marlan 135).

[28] In many spatial narratives, place becomes the antagonist of characters, in the same way that Las Chivas becomes the antagonist of the New England woman: "when place takes on characteristics of an antagonist, characters find themselves attacked not by other human beings but by pervasive, indefinable, and malignant spatial conditions, and they are not likely to know how to contend with them" (Kort 17).

however, they were wont to lose their wariness. And then, damage of some sort […]. A *curious* disintegration working all the time, a sort of *malevolent breath*, like a stupefying, irritating gas, coming out of the *unfathomed* mountains. The pack-rats with their bushy tails and big ears, came down out of the hills, and were jumping and bouncing about: symbols of the *curious* debasing malevolence that was in the *spirit of the place*. (163; my emphasis)

In this clash between *genus loci*, or the spirit of the place, and the civilizing efforts of the human will, the human "onward-pushing spirit" of achievement and modernity faces "mysterious," "strange," and "curious" forces that defy the laws of the empirical world. A Dionysian force manifests itself in the "bursts of queer, violent, half-frenzied energy" that constantly undermines the attempt to tame nature. This "frenzied energy, that took away one's intelligence as alcohol or any other stimulus does" (164) is part of the "disintegration" process that opposes the shaping of the land in a civilized way. The spirit and materiality of nature fights back to impose its own will on a human will attacked by "pervasive, indefinable, and malignant conditions, and they [people] are not likely to know how to contend with them" (Kort 7).

Once the text has established the mysterious nature of occurrences at Las Chivas, it moves on to show the other two features that make the metamorphosis between St. Mawr and the sacred place complete. Like mystery, paradox and numinosity are the key features of the Self (Marlan 168), sacred places possess a spiritual power that includes both light and darkness. This means that they also possess—like St. Mawr—numinosity and a paradoxical quality: they inspire awe, at once fear and wonder (Otto 8-11). These traits of the Self are illustrated in the experience of the New England woman. She is in awe as she contemplates the perfection of nature's beauty:

Ah, that was beauty!—perhaps the most beautiful thing in the world. It was pure beauty, *absolute* beauty […]. It was beauty, beauty absolute, at any hour of the day […]. It was beautiful, *always*! It was always great, and splendid, and, for some reason, natural. It was never grandiose and theatrical. Always, for some reason, perfect. And quite simple, in spite of it all. (165-66)

But this is beauty seen at a *distance* (166), a disintegrated view. Nearness, however, is inescapable: "she finds herself juxtaposed to the near things, the thing in itself. And willy-nilly she is caught up into the fight with the immediate object. The New England woman had fought to make the nearness as perfect as the distance: for the distance was absolute beauty" (167). She brought water to the ranch and "into her wash-basin"—"*There*! she said. I have tamed the waters of the mountain to my service" (167), but the wilderness of the land attacks her will and consciousness: "the invisible attack was being made upon her. While she reveled in the beauty of the luminous world that wheeled around and below her, the grey, rat-like spirit of the inner mountains was attacking from behind. She could not keep her attention" (167). The *genus loci* assaults her will, as the place's fire strikes animals and trees (167), and she begins to recognize the numinosity of the place—its god-like and demon-like qualities, its characteristic light and darkness:

> "*There is no Almighty loving God. The God there is shaggy as the pine-trees, and horrible as the lightning…. What nonsense about Jesus and a God of Love, in a place like this! This is more awful and more splendid*" (168; emphasis Lawrence).

It is, however, too late for her. She cannot bear the reality of the "natural god," of "a world before and after the God of Love" (169), and her "illusion […] of love, universal love" was destroyed: "There was no love on this ranch. There was life, intense, bristling life, full of energy, but also, with an undertone of savage sordidness" (168) that she was incapable of making her own. She is overwhelmed and unprepared for the energy of the land and its spirit: "the cruel electricity of the mountains. And then, most mysterious but worst of all the animosity of the spirit of place" (170). The mystery (unintelligibility) of the place and its paradoxical, numinous nature—luminous and sordid, awful and splendid—defeat the woman, who is unable to absorb the dark side of the place's spirit and incorporate it to herself—unlike Lou, who was ready to grapple with the equivalent frightening darkness in St. Mawr during the *nigredo* phase. Thus, the New England woman's one-sided belief in

light "and herself with it, was a corpse" (170)—just as Rico becomes a vanished corpse after his latest (and always unsuccessful) attempt to impose his will on St. Mawr's wild nature. [29]

b. *Coniunctio Oppositorum*: Consciousness and the Unconscious, Body and Spirit

While the New England woman is defeated by the *genus loci*, Lou embraces the primordial, fierce, and full spirit of the place by recognizing the sacredness of the land. This is an intuitive recognition—that is, true knowledge, according to Lou, as we know—of the qualities that define Las Chivas, like they defined St. Mawr. Opening up herself to the mysterious, dark forces present in the Las Chivas landscape shows the "spiritual consciousness" (Swan 81) of an individuated ego in its relationship with the unconscious. Earlier in the text, there is a discussion of the meaning of Pan. A character in the novel, Cartwright, says: "Pan was the hidden mystery—the hidden cause. That's how it was a great God. Pan wasn't *he* at all: not even a great God. He was Pan, ALL: what you see when you see in full," and that is not only the light of "daytime," but what is "within the thin," its "darkness" (85). Lou immediately identifies Pan with St. Mawr: "Do you think I might see Pan in a horse, for example?" And Cartwright's answer is: "Easily. In St. Mawr!" (85). Pan in *St. Mawr* means seeing in *full*, and it is, first of all, a metaphor for the incorporation of the unconscious into consciousness, and for the integration of darkness and light—the great tasks that Lou accomplishes to a great degree, and the one that Rico and the New England woman are unable to confront. Lou's alchemical journey has led her to develop the ability to see and integrate all: good and evil, conscious and unconscious, and, as we are about to see, spirit and body. For Eric Neumann, Pan is, in a modern sense, the prototype of the "Christian Devil," the "custodian of the secrets of nature"; after Faust, he "is not refused but accepted" in Western culture (116). The modern human accepts evil, and in doing so s/he "accepts the world and himself in the dangerous double nature which belongs to them both" as an "affirmation of our human totality, which embraces the *unconscious as well as the conscious mind, and whose center* […] [is] *the Self*" (117; my emphasis).

As we know, the Self gives cohesiveness to our whole being—body and soul—"in a symphony of mutual interdependence" that involves "the totality of the organism" (Neumann 117). At the *rubedo* stage, *coniunctio* as *hierosgamos,* or the sacred marriage between body and spirit, occurs as part of the process of individuation. Neumann emphasizes that the Self requires the participation of the body. There cannot be *coniunctio* without the body: "all psychic processes have […] their physical correlates" (Neumann 118). At this stage of individuation, the body is spiritualized as the spirit is materialized. The instinctual part of ourselves alone has been left behind. After her psychological trajectory and her recognition of the sacred earth, Lou declares that: "mere sex, is repellant to me" (158). As opposed to the spiritual *citrinitas, rubedo* is a physical stage as well, and it is not surprising that the sacred place is an expression of the senses and sexuality, as the case of the New England woman illustrates:

> The breath of the curious, frenzied energy, that took away one's intelligence as alcohol or any other stimulus does […]. The woman loved her ranch, almost with *passion*. It was she who felt the stimulus, more than the men. It seemed to enter her like a *sort of sex*, intensifying her ego, making her full of violence and of blind female energy. The energy, and the blindness of it! A strange and blind frenzy, like an *intoxication* while it lasted. (164; my emphasis)

While the spiritual and physical power of the land's mysterious energy crushes the New England woman, Lou feels herself embraced by and identifies with its great power:

> There's something else even that loves me and wants me. I can't tell you what it is. It's a spirit. And it's here, on this ranch. It's here, in this landscape […]. It's something to do with wild America.

[29] As opposed to the New England woman, Lou is ready for Las Chivas after her journey. While Wasserman sees no reason to believe that she will be successful in New Mexico (121), Wilde thinks rightly that Lou "enters into her inheritance in a more mature and more Lawrentian spirit" (169).

And it's something to do with me. It's a mission, if you like…. But it's my mission to keep myself for the spirit that is wild, and has waited so long here: even waited for such as me. (175)

The spirit of the physical land mirrors the human psyche. It is not a "tamed" spirit, but a wild one, a spirit of light and darkness that affirms body and soul. It is, *mutatis mutandis*, the same spirit—wild and numinous—that makes Lou feel so close to St. Mawr at the *nigredo* stage. But to embrace the spirit of the earth is in fact to embrace the body. Neumann draws attention to the fact that inclusion of unconscious, spiritual earth forces:

> always entails inclusion of the body at the same time. When we speak of the earth, then this *'earth' is symbolically identical with the body*—just as flight from the earth is always at the same time flight from the body. But the totality of the body, in its unitariness and centeredness, works unconsciously as a natural phenomenon in everything organic. (118; my emphasis)

Thus, as Lou embraces the earth and its spirit, her spirituality becomes embodied and vice versa, making *coniunctio* as *hierosgamos* possible. She reaches this point by both evaluating her situation with respect to Phoenix—who remains in the realm of the instinctual end of the psychic spectrum—and by her openness to the spiritualization of the body.[30] When she tells Mrs. Witt that: "sex would matter, to my very soul, if it was really sacred" (174), Lou is sharpening her *animus* profile further. Clearly, Lou is expressing the most "positive encounter with […] [her] inner *animus*" (Hamilton, "Alchemical" 5), and she recognizes that "love can't really come into me from the outside" (159). The "marriage with the earth nature" (Hamilton, "Alchemical" 5) results from both Lou's recognition of the sacredness of the place and from the spirit of the land that has been waiting for her: "a wild spirit wants me […]. It needs me […]. It craves for me. And to it, my sex is deep and sacred, deeper than I am, with a deep nature aware deep down of my sex" (175). Through God needing "our poor heart… in order to be real" (Franz 155), earth and spirit—like consciousness and the unconscious—come together in *rubedo*. C*oniuctio opositorum* is possible through a process of individuation guided by and toward the Self archetype.

Conclusion: The Alchemical *Opus* as Masterpiece

From one of the first alchemical texts, the *Emerald Tablet* of ancient Egypt, to Carl Jung, the "great art of alchemy" has been about transformation. *St. Mawr* displays multiple transformations. First of all, there is the psychological transformation of Lou Witt that leads the character in her process of individuation. In this process, the archetypal power manifested in the image of St. Mawr is re-embodied in Las Chivas. In this metamorphosis, horse and earth—nature—share their essential characteristics: paradox, mystery, and numinosity. Also, the narrative language of the text organically transforms itself according to the stage of the *opus* that Lou is experiencing. In *nigredo, albedo,* and *citrinitas*, humans are more in control of events, and a temporal narrative language is dominant. In *rubedo,* when the land controls the fate of the humans who search to dominate it, a spatial narrative is prevalent. Finally, as Lou reaches *coniunctio oppositorum,* consciousness and the unconscious, body and spirit, and temporal and spatial narrative meet in *hierosgamos,* and a balance is restored, even if *St. Mawr*, fittingly, ends without covering Lou's actual life in Las Chivas. The text ends with a touch of Kierkegaardian irony as Mrs. Witt points out how a dry land that has cost so little can yield so much for Lou. Indeed, Las Chivas represents the culmination of a process in which Lou has found the horse within and is now on her way to a life of plenitude.

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[30] In this sense, Jerry Wasserman's interpretation would be very different from mine. For Wasserman, Lou "rejects sexuality" (114), and that is her "final decision" (119). For Wilde (168) and McDowell (95), however, the possibility of sex remains open. In my own reading, given what St. Mawr and Lou share from the very beginning—being victims of a certain society, and celibacy—the disappearance of St. Mawr from her life, and the return of his stud powers foreshadow not only Lou's openness to sexuality but the likelihood of sexual fulfillment for her. In fact, this disappearance and foreshadowing also explains why St. Mawr must stay in Texas and Lou must go elsewhere.

In *St. Mawr,* as in an entire group of works that spans cultures and eras, the presence of a horse at the center of a work of art has made balance and completeness possible. Lawrence's intentions are clear: he titled his novel "*St. Mawr*"— even if such a title has puzzled critics who, suddenly, found themselves deprived of the physical St. Mawr.[31] But Lawrence knew better: he understood that through narrative art and its power of transformation and the "specific mysterium" that the horse represents (Hannah 4), important aspects of the human soul and mind could be reached and revealed. Thus, by a merging of art and the law of nature—which the horse symbolizes so elegantly—we can transform ourselves and develop our own laws as individual human beings.

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[31] Alan Wilde exemplifies this position about *St. Mawr*: "It is a matter for regret that Lawrence gave his novel the title he did" (164).

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Videoconferencing and Virtual Reality in the Context of Language Education

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Abstract

Classrooms no longer mean a room full of students, sitting on school desks, while listening intently to an instructor lecture before them. Technology has long changed that view of education. Videoconferencing and 3D Virtual Reality (VR) are discussed in the first section of the paper with emphasis on application for educational purposes. Relevant definitions, history, state of the art and potential for future use are touched. Then, three case studies from the Czech Republic are briefly presented. Two of them are ongoing joint projects of seven different institutions applying videoconferencing and Virtual Reality in English language courses for adults. More than 300 students from two regions of the Czech Republic, mostly working professionals, are benefiting from the trials of the newly created courses. The third case study is a successfully finished project organized by two institutions for several hundred students at six elementary schools. Language tutors working directly from the Philippines were conducting videoconference sessions for small groups of students. The potential of the Information and Communications Technology (ICT) together with cultural difference between the tutors and the students were notably exploited in the methodical materials created for the project in order to motivate students and to assist them to gain not only the communicative competence, but also additional skills required by the curricular reform. A summary of information on data collected through a questionnaire during the project follows, showing the level of acceptance of the method and perceived benefits among the involved students. Finally, a specific research question, whether involving foreign tutors through online tutoring is less suitable for lower grades (grades four and five, with students aged ten to eleven who just started learning the English language) than for higher grades based on their subjective perception, is analyzed.

***Keywords*:** Component; online tutoring; virtual reality; videoconference; English for Speakers of Other Languages (ESOL); English language; elementary school; adult learners; Philippines.

Videoconferencing in education

People may each think of something different when the word 'videoconferencing' is mentioned. Some will say that it is a boardroom full of people dressed in suits, holding business meetings. Others will say, it is a means to personally contact your loved ones when they are far away. Consider the Merriam Webster dictionary's description of videoconferencing, "It is the holding of a conference among people at remote locations by means of transmitted audio and video signals." (Videoconferencing in Merriam-Webster Dictionary, n.d.) Distance no longer becomes an issue when it comes to educating others because of this development, but how it began wasn't exactly easy. Videoconferencing was first demonstrated in the late 1960s. This technique, however, was very costly that it could not be used for mundane purposes. As a result, it wasn't until about three decades later during the 1990s that videoconferencing became standard technology, therefore providing most with the convenience to teach through their personal computers. Nowadays, video conferences can be used for teaching in various ways.

As mentioned earlier, one of the ways videoconferencing is used is through connecting remote students around the world to their teachers. For instance, students in China can learn English through their computers from an instructor perhaps in New York. That, though, is only at its basic level. At a higher level, instructors may provide virtual tours to students and give interviews. It also allows students to practice their foreign language skills with other students from different countries (Horton,

2008). These techniques seem to excite them even more, especially the younger students. Initially, some of them might not be completely motivated to learn. Although, upon realizing that they can do activities during class such as, touring an African Safari, interviewing a scientist in Japan, and having conversations with other students in Brazil, they become more inclined to learn and are further involved. That, no doubt has become one of the big impact technology has had on the different processes of learning.

Here are other ways videoconferencing can be ingeniously utilized. It can be used for: (1) Discussion of live events. (2) Labs and demonstrations. (3) Study Groups. (4) Guest Lecturers. For example, it can be quite expensive to take a whole class to Washington D.C. for a field trip to The White House. It would be more cost-effective to discuss the tour and political event held there with a professor who had physically attended it. It gives the students a comparable experience, as if they were there themselves. In addition, when it comes to labs and demonstrations, activities like taking a cooking class has been made easy. There's no need to drive anywhere. All that's needed is a computer and a student can learn to cook from his/her own kitchen at home. Moreover, laboratory experiments in a Biology or Chemistry class can also be demonstrated through videoconferencing.

Having a live demonstration of a frog dissection or a chemical experiment through a screen is not any different from doing it yourself. 'Study Groups' are also a great way technology has increased possibilities for students. Especially in large universities, students who live on campus sometimes find it hard to stay in touch with other students in their classes. It is much easier to contact each other to work on group projects with videoconferencing. They are able to avoid late projects or delays, even when their schedules are completely different. Lastly, it would be an extraordinary experience for students to listen to a famous guest lecturer right before them. But without the necessary funds, that hasn't become a possibility for some colleges. Today, videoconferencing with famous and prominent individuals has become popular. It takes into consideration, not just the financial abilities of an institution, but also the schedule and location of the guest lecturer(s) (Acacio, 2012).

The role videoconferencing has played has gone beyond simply to educate. Yes, it eliminates distance. Yes, it makes learning more exciting, but its impact has touched the lives of many at the same time. An excellent proof is detailed in a case study about the Haiti Medical Education Project (Vidyo USA, 2012). In 2010, a 7.0 magnitude earthquake had struck Haiti. It destroyed most of its medical schools and the number of trained healthcare professionals suffered with it. With a shortage of medical schools and healthcare professionals, it was difficult to create and execute a plan to solve this critical issue. The solution: a non-profit organization called the Haiti Medical Education Project (2014) trained Haitian medical professionals by connecting them to a team of medical experts through videoconferences. This had successfully helped to improve the conditions in Haiti. The education they received eventually rebuilt the country's infrastructures and in a way, its people's lives.

Virtual reality in education

What comes to mind when you hear Virtual Reality (VR)? Many would likely associate it with either a computer game or something scientifically or technologically related. Nonetheless, it is commonly referred to as a Virtual Environment (VE). Thus, regardless of whether one knows the meaning of the term or not, it is quite self-explanatory making the gist of the words more apparent. Numerous applications have been developed with this goal in mind. Even though scientists differ in their opinions on what exactly creates a 'true experience' in a Virtual Environment and no matter what words are chosen to refer to it, Virtual Reality or Virtual Environment, the main concept remains the same. Jonathan Strickland (Strickland, 2007) describes Virtual Reality as, "… using computer technology to create a simulated, three-dimensional world that a user can manipulate and explore while feeling as if he were in that world." Similarly, the Merriam-Webster Dictionary defines Virtual Reality as "an artificial world that consists of images and sounds created by a computer and that is affected by the actions of a person who is experiencing it" (Virtual Reality in Merriam-Webster Dictionary, n.d.).

In contrast to these broad definitions we may name more strict definitions. Jonathan Strickland continues, that Virtual Reality in general "... should include: (1) Three-dimensional images that appear to be life-sized from the perspective of the user and (2) The ability to track a user's motions, particularly his head and eye movements, and correspondingly adjust the images on the user's display to reflect the change in perspective." (2007) Similarly, according to Wickens, Virtual Reality is said to have five main critical components. These are defined as the following: (1) 3-D perspective; (2) closed loop interaction; (3) dynamic rendering; (4) enhanced sensory feedback; and (5) inside-out perspective. These findings are based on data gathered from various sources arguing that these components increase performance levels. Closed loop interaction, without any reduction in the effort exerted, affects positively the retention level. (Wickens, 1992)

The idea of Virtual Reality was imagined by the public and press during the late 1980s and early 1990s. There were science fiction books that focused on a Virtual Reality world engaging its readers so well that they had anticipated it to become actuality. Though not fully examined yet, it might have been one of the reasons for the excitement in Virtual Reality and its potential to increase the quality of education and deal with symptoms, such as the constant drop in test scores of students. It resulted into numerous educational projects involving computer simulations. Many of them were labelled as a Virtual Reality education, though, only a few would fit in one of the strict definitions of the term. For example, according to Don Allison and Larry F. Hodges (Allison and Hodges, 2000) one criterion that especially sets a real VR educational application from a regular computer simulation is that it must present firstly an interactive environment and secondly "…viewing the results in an immersive fashion using a head-tracked display," as stated by regarding an experimental project conducted about Virtual Reality. So, though the confusion on which applications would truly qualify to be called a Virtual Reality education has not been resolved yet, Virtual Reality in one of its forms has become routinely used by many institutions.

While Virtual Reality has originated from gaming, technological advances are responsible for aiding it in expanding its popularity in other industries. The VR market is projected to grow significantly as well as the number of its users. "Markets and Markets" report that the VR market will increase to over $400 million and its users to over 25 million by the year 2018. In the field of education, VR has made students more interested in STEM (Science, Technology, Engineering, Mathematics) education. Approximately half of the students, who take up the STEM course in college, ultimately drop this major due to it being extremely dependent on theory and not providing adequate hands-on experience for the students. Challenging and dull contents can be made exciting through Virtual Reality (Reis, 2014). According to Andrew Connell, Chief Technology Officer (CTO) of Virtalis, a virtual-reality company, says this, "It really improves student up-take when they see they're going to be using the newest technology." He further explains, "Students are paying for their qualification, they're customers. They ask themselves, 'Am I going to be equipped to learn with the latest technologies, and am I going to be ready for the 21st century workplace?' They're looking for universities to go beyond classroom teaching." (Reis, 2014)

Case studies: ESOL courses for adult learners and for elementary school students

Our preliminary exploratory research hinted, that language schools repeatedly face complaints of students, who were not able or not willing to attend face-to-face courses due to their busy schedules. Some students also called for more time-effective courses which could be delivered at various times including late evening hours and weekends. Even prior assessing the question more rigorously, we seized an opportunity to arrange two projects, both with the main goal to provide a proper response on the market call. The projects allowed us to implement videoconferences and Virtual Reality thoroughly and systematically in ESOL[32] courses for adult learners. The projects are

[32] English for Speakers of Other Languages

being carried out since January 2013 as joint actions of four language schools, one civic association and two technology-oriented companies. Geographically they span over two regions of the Czech Republic with total population of 1,14 million people. First of them, EnglishAnywhere.cz[33] provides videoconference-based courses for adult learners of English language in each circuit of the Zlín region. EnglishLife.cz[34] provides Videoconference and Virtual Reality-based courses for adult learners of English language in the Hradec Králové region.

Projects EnglishAnywhere.cz and EnglishLife.cz.

Wide range of courses, such as general ESOL covering A1 – C1 competence levels according to Common European Framework of Reference (CEFR) for Languages (Council of Europe, 2001), specialized English Language courses for professionals in different fields (office, business, technical sector including chemistry, medical sector, travel, and tourism), and courses for tutors, language school management and other employees regarding implementation of online tutoring from various perspectives have been prepared. So far, more than 300 adult learners benefit from the participation on the project in at least one of our courses. Regarding the technology, our videoconference courses operate on an educational platform called LightClass[35], which has been developed as one of the project activities on top of open-source videoconferencing system MConf[36] which incorporates BigBlueButton[37] conferencing rooms and operate them as a part of international load-balancing cooperative network of videoconferencing servers. Our own LightClass layer implemented in web2py[38] framework provides user and privileges management, course management, course content, logging and attendance records, feedback collection, access to session recordings, self-study materials, self-tests and assessment tests, overview of student progress, and range of other useful functions. The virtual reality courses have been prepared to be based in one of OpenSimulator-based[39] hypergrid-enabled worlds. So far OSGrid[40] and Metropolis Metaversum[41] are supported. For each of the worlds we established our own regions with content relevant to the courses as a base, but the tutors may take their students to various locations according to the character and objective of each session. A bridge has been implemented between OpenSimulator instance and our own information

[33] Project Partner Network Active English by the Means of Videoconference, funded under number CZ.1.07/3.2.03/04.0040 from the Operating program Education for competitiveness.

[34] Project Active English by Videoconference and in Virtual Reality, funded under number CZ.1.07/3.2.10/04.0016 from the Operating program Education for competitiveness.

[35] Refer to http://lc.o-it.info.

[36] Refer to http://www.mconf.org.

[37] Refer to http://www.bigbluebutton.org.

[38] Refer to http://www.web2py.com.

[39] Refer to http://www.opensimulator.org.

[40] Refer to http://www.osgrid.org.

[41] Refer to http://www.hypergrid.org/metropolis/wiki/en.

system. It uses avatar presence logs as a source for student attendance records. Our system provides user and rights management, course and schedule management, feedback, overview of student progress, and several more functions. Feedback is being gathered from the involved students in order to assess the suitability of the forms of education and chosen activities, to reveal weaknesses and to improve quality of the courses as well as the technology behind which is being integrated and partially developed.

Besides the two ongoing projects for adult learners an experimental project implementing videoconference tutoring as an extension of English language subject at six chosen elementary schools in the Hradec Králové region in the Czech Republic[42] took place between November 2011 and December 2012. (Zejda, 2014) The project was supported by European Social Fund[43] in partnership between the business and the governmental educational sectors. Video sessions were experimentally integrated into the educational program of each of the elementary schools for the duration of the project. Goals of the elementary education set e.g. by Vodáková (Vodáková, 2008) such as acquisition of effective learning, motivation for life-long education, support creative mind, effective communication, respect for others, respect for cultural, spiritual, moral values, and more. The project followed a goal to support the students involved in the areas of (1) language confidence, (2) ability to work in teams, (3) ability to combine knowledge from different subjects, (4) ICT literacy, and (5) respecting differences in the multicultural world.

Project NetLektor.cz

Three different courses have been created for the project as well as an information system. Up to four tutors connected to a classroom, each of them was assigned to a team of four to five students. In total, several tens of students participated from each grade. The sessions were conducted by tutors from the Philippines. The big cultural differences between the Philippines and the Czech Republic helped to make the project activities more appealing for the students. The main technology used for the communication and interaction over content during the classes was Skype[44] program. In order to support the organization of the sessions, such as timetable planning, progress records, a custom-tailored information system has been prepared.

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[42] The schools involved in the project were from Hradec Králové region, specifically three schools from Hradec Králové city and the remaining three from Chlumec nad Cidlinou, Nechanice and Jičín.

[43] Project Online English tutoring for Elementary Schools, funded under number CZ.1.07/1.1.05/04.0027 from the Operating program Education for competitiveness.

[44] Refer to http://www.skype.com.

Analysis of the response from students

Students who were involved in the first eight-month-long stage of the tutorial were asked to fill in a questionnaire to provide a feedback for the second stage of the project. The questionnaire was presented to the students by the means of the integrated information system created for the purpose of the project. The students were seated in the school IT lab and instructed by their teachers to access a page on the project website. Each student was provided with unique login credentials to access the form. Only students who were either not present at school or who experienced a technical problem with the connection or the web browser (reportedly few cases) did not fill in the form. So, we may assume that those who did not participate in the questionnaire do not consist of a group with a significantly different relationship to the objective of the research goal, so likely they don't cause any significant bias. In total, we managed to gather the feedback from 433 out of 547 students invited, almost 80 per cent. The questionnaire consisted of the following questions[45]. Most of them were closed- choice questions. If the question asked agreement or disagreement with certain statement, five levels were offered. The questions listed in italics were open-ended; the participants could write just anything. The questions were arranged in six blocks.

Table 1: Questions asked in the questionnaire.

Language skills of respondents
In regards to the English language, what do you personally perceive as most difficult? (reading, writing, talking, understanding)
According to you, how important is ability to communicate in English for practical life? (1 to 5 scale)
What was the most difficult for you to participate on the sessions with online tutors?
How difficult was for you to overcome qualms or lack of interest? (1 to 5 scale)
How difficult was it to understand the tutors? (1 to 5 scale)
How difficult was it to find proper words for answers? (1 to 5 scale)
How difficult was it to make meaningful sentences out of the words? (1 to 5 scale)
How difficult were the activities and tasks during the sessions? (1 to 5 scale)
Please, comment on the difficulty of sessions. (open)
Rating of the sessions
How would you rate the topics of the sessions with the tutors? (1 to 5 scale)
Please, try to remember, which topics did you like most and which topics you did not like. (open)
How interesting were the sessions with the online tutors in comparison to regular sessions? (1 to 5 scale)
We involved tutors from the Philippines. How did you like the choice? (1 to 5 scale)
How would you rate the tutors? (mark for each of the tutors who taught the student on a 1 to 5 point scale)
Personal benefit from the sessions
Did the sessions with tutors help you to learn new words or phrases? (1 to 5 scale)
Did the sessions help you to compose meaningful sentences? (1 to 5 scale)
Did the sessions help you to acquire higher self-confidence for communication with foreigners? (1 to 5 scale)
Did the sessions increase your motivation to study the English language further? (1 to 5 scale)
What did you personally get from the sessions? (open)
Did you have a chance to use anything you have learned or to share it with anyone? (yes - no)
Assessment of the form of education
According to you, what is the biggest difference of the sessions with tutors in comparison with regular sessions? (several statements)
What would you indicate as a main advantage of online tutoring over face-to-face? (several statements)
Overall assessment of the project
How would you rate the project as a whole? (1 to 5 scale)
How did you like, that the sessions were scheduled every 14 days? (choice between alternative

[45] The questions were formulated in the Czech language, but for the purpose of this paper we translated them to English.

frequency options)
Would you recommend to apply something similar also at other elementary schools? (1 to 5 scale)
What is the biggest benefit or achievement of the project? (open)
If there is an English language vocational course employing online English tutors available at your school, would you consider your participation? (1 to 5 scale)

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In general, the data acquired provide proofs for what we observed throughout the whole project, that the activities were interesting, inspiring, and beneficial for the students. The conclusion is obvious even without any further statistical analysis. As an example, we are presenting frequency of answers on a question asking an overall rating of the whole project.

Students' feedback

Also only 3.7 % preferred traditional face-to-face sessions over sessions with online tutors, almost ¾ of students (74.4 %) rated topics positively, only 4.1 % found the topics non suitable or boring. More than ¾ of students (77.8 %) rated the sessions with online tutors higher than ordinary English language sessions, for 18.5 % of them both forms are similar and only 3.7 % preferred ordinary face-to-face sessions with an English language teacher to the sessions with online tutors. Though the responses on all questions were very positive, we have to consider, that the enthusiasm was likely higher because the project introduced something new, unusual, and unique, so it is likely that it would decline in time as the method became more common and widespread. In answer to the question "What would you indicate as a main advantage of online tutoring over face-to-face?" 45 % chose "We may communicate with tutors from a big distance", 24 % chose "The sessions are more interesting because we use computers", 12% chose "We may share presentations, documents and other materials", 11 % chose "The tutors don't have to commute" and 7 % chose "Something else". The potential of videoconferencing technology to bridge big distances seems to be the biggest advantage in the eyes of the students among all the options.

Parents of the students involved in the project were also given a chance to comment on the project and its benefits in a structured form. They were given a set of login credentials and instructions on how to access the form. The project team was ready to provide assistance if necessary. Only one form per student could be filled in, so either one of the parents could fill in the form or they could cooperate. In total, we have received 119 forms filled in by students' parents. For those who did not fill in the questionnaire we don't know the exact reasons. So, interpretation of the results gathered from the parents should be made with even higher caution. For these reasons, we don't analyze the data from the parents in this paper any further.

Acceptance of the method by lower grades

Our further research goal was to analyze the inner structure of the feedback. At first we planned the project to involve only grades six and higher (students 12 and above); however, the partner elementary schools persuaded us to change the scope and include even fourth- and five-graders. Specifically we wished to know, if the method is suitable even for students from lower grades, in particular, for grades four and five, who just started learning the language, and for those students most are still struggling to reach A1 level. Two hypotheses were set:

H_0: Online tutoring as a form of education as performed in the aforementioned project in comparison with higher grades is not suitable for grades four and five.

H_1: Online tutoring as a form of education as performed in the aforementioned project is at least equally suitable for grades four and five as for higher grades.

The questionnaire did not contain any questions which would allow us to sort respondents according to school, gender, or grade. Rather we have chosen a more reliable solution. As mentioned above, each participant received unique login credentials. The credentials allowed us to connect the given response with the personal records in our information system. The system contains a lot of data potentially useful for research purposes. The data involves membership of each student in a team. Each team belongs to a class, each class belongs to a school.

Table 2: Frequencies for the "grade" variable.

Grade	Frequency	Percent	Valid Percent	Cumulative Percent
fourth	44	10.2	10.2	10.2
fifth	26	6.0	6.0	16.2
sixth	67	15.5	15.5	31.6
seventh	106	24.5	24.5	56.1
eighth	91	21.0	21.0	77.1
ninth	99	22.9	22.9	100.0
Total	433	100.0	100.0	

More data was acquired during the project, such as the presence of each student in the sessions, tutors' records about each student's progress, grades in several categories provided by tutors for each student after each session, and tutors' free text comments. The data may be used for further analysis, with respect to the privacy requirements. In connection with the aforementioned research goal we decided to include only the variable "grade", which may hold values in the range fourth to ninth. Frequencies for the "grade" variable are shown in the Table 2.

Among the variables describing the attitude of students towards the sessions we might consider several candidates and analyze them either separately, as a set or create an artificial variable as a combination of them. For the purpose of this paper we just chose two variables and analyzed them separately. The variable "confidence", which holds answers on the question 'Did the sessions help you to acquire higher self-confidence for communication with foreigners?' and "satisfaction", which holds answers on the question 'How would you rate the project as a whole?'. Before any further analysis we performed quick checks using Contingency Tables. However, frequency distribution with original values of the "grade" variable leads to suboptimal values for certain combinations, so we would be limited in the range of statistical methods applicable to solve the problem. So, we decided to merge the fourth and fifth grades with frequencies of 44 and 26. Similarly in the "confidence" and "satisfaction" variables the most negative answer, which was least occupied (for "confidence" only nine answers and for "satisfaction" none), was merged with the second most negative. Please, refer to the short version of the resulting Contingency Table (Table 3).

Table 3: Contingency tables for "grade" and "confidence"; and for "grade" and "satisfaction".

		Confidence (Binned)				Total
		very	yes	slightly	very little, not at all	
Grade (Binned)	fourth, fifth	20	27	18	5	70
	sixth	19	28	17	3	67
	seventh	31	50	22	3	106
	eighth	27	32	24	8	91
	ninth	18	42	26	13	99
Total		115	179	107	32	433
		Satisfaction (Binned)				Total
		very	yes	slightly	very little, not at all	
Grade (Binned)	fourth, fifth	27	21	19	3	70
	sixth	33	25	7	2	67
	seventh	42	48	14	2	106
	eighth	34	41	16	0	91
	ninth	30	48	18	3	99
Total		166	183	74	10	433

The Contingency Tables do not provide any reason to conclude that the method was not suitable for lower grades. To reach a more formal conclusion regarding the hypotheses for the whole population we had to choose a suitable method, construct a statistical model, choose a testing criteria, and test the hypotheses. We considered correspondence analysis which is suitable for data in the Contingency Tables, but it won't provide any affirmative answers regarding the hypotheses. ANOVA is not suitable for this type of data. We might have used the log-linear model (Agresti, 2002; Hebák, 2005; Simonoff, 2003)], but it is more suitable for multidimensional Contingency Tables with nominal variables and reveals primarily symmetrical dependencies. Finally, we decided to examine the relationship of "grade" to both "confidence" and "satisfaction" separately. If both tests would suggest refusing H_0 in favour of H_1 (that the method is suitable even for low grades), H_1 will be accepted. If all tests would be against refusing H_0, it won't be refused. In the case of different conclusions of the tests, we would perform further either factor, or correspondence analysis.

Regarding the test criteria, we considered the chi-square test, often used in combination with The Contingency Table. But we are interested specifically in a possible monotonic dependency between the variables, for which the test is not suitable. Further, the data still contains combinations with too low frequencies for chi-square. We also considered the Pearson's product-moment correlation. It has an advantage of showing a good interpretation of the results, but it calculates only linear dependency and works well mainly for the variables with normal distribution and similar variances. We might also use Spearman's rank-order correlation which performs categorization of the data as a part of the calculation and it analyzes general monotonic dependence between the variables. But, it is not well suited for data with "ties" (Norusis and Inc, 2010), which are common in our data.

We decided to choose among a family of statistics, which compare concordant and disconcordant pairs of values. In general, they express a probability, that orders of values are the same in both variables (or reversed). For the analysis we used PASW software (Norusis and Inc, 2010), which supports Kendall's tau-b, which is able to cope with ties, tau-c specifically suitable for bigger rectangular tables, Somers' d, which distinguishes the direction of the relationship. Finally, we chose Gamma, introduced in 1954 to 1972 by Goodman and Kruskal, because it is specifically suitable for combinations of variables with a high portion of the same values.

Further, according to (Göktaş, 2011), for small tables and relatively small data it gives most reliable results among the aforementioned statistics (Spearman's and Pearson's correlation coefficient, Gamma, tau-b, tau-c, Somers d). Using Gamma we could have even used the original variables before we merged them. Based on the pre-research results and after choosing the proper methods we defined the hypotheses in a more specific way:

$H_{0'}$: There is no monotonic relationship between pairs of variables in the population (Gamma closes to 0).

$H_{1'}$: There is a monotonic relationship between pairs of variables in the population (if so, we will have to examine the significance; if accepted the sign will determine the direction).

At the .95 level of significance, we refuse the hypothesis that there is no monotonic relationship between the variables in favour of hypothesis, that the variables are monotonicly related. In regards to the direction of the relationship, lower grade students are more positive about the increase of confidence by the sessions with online tutors. Eleven per cent of the pairs of the examined variables are in favour of this relationship. The approximate level of significance is close to the threshold for refusing or not refusing the H0, but because of the direction of the relationship it won't influence the conclusion.

At the .95 level of significance, we do not refuse the hypothesis, that there is no monotonous relation between the variables. A monotonic relationship was not confirmed. We did not use the word dependence, because Gamma examines symmetrical relationships, it does not indicate which variable is dependent. Table 4 shows the results for both tests.

Table 4: Monotonic relationship of variables "confidence" and "satisfaction" with "grade".

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Confidence by Grade	**Gamma**	0.109	0.054	2.020	0.043
		Value	**Asymp. Std. Error**	**Approx. T**	**Approx. Sig.**
Satisfaction by Grade	**Gamma**	0.065	0.059	1.105	0.269
N of Valid Cases		433			

Several limitations of the research should be mentioned. As further analysis, not presented in the paper, has proven, all variables considered as determinants of suitability of the methods for the students are highly positively intercorrelated[46]. So, an artificial variable combining the variables might be considered for further research. Regarding the sources of the data, we simply involved all data gathered from all students who participated in our project who were present at school at the time set for the questionnaire. All students came from the same region of the Czech Republic. Three of our six partner elementary schools were from Hradec Králové city (around 93,500 inhabitants). The remaining three were from from smaller cities and towns of Hradec Králové region - Jičín (16,400 inhabitants), Chlumec and Cidlinou (around 5,400 inhabitants), and Nechanice (around 2,300 inhabitants). Though the involved elementary schools provide a varied selection, schools were involved based on the interest of their management and we could not make any quota selection of the schools for the research. We might involve the school as a new variable in the model and perform three-dimensional analysis of the data to evaluate further correlations. But any conclusions from such research would have limited value, because of the small size of the data for such a task. A second limitation is the size of the sample which amounts to 433 responses. A third limitation is that the questionnaire provides only a subjective view of the students. We did not measure if the students truly improved their skills as they reported. A fourth limitation, though we made an effort to prevent any bias caused by the teachers assisting the students with the questionnaires, was that the teachers still might have influenced the process. A fifth limitation, even though the questions were formulated to be easily understandable, potential confusion might influence the results. All these limitations should be considered with caution for any broader interpretation of the results, such as assumptions about using a bigger population of all elementary school students in the Czech Republic.

Conclusions

Overall, videoconferences have reformed the way we teach. How it began might not be known to many, but its influence is certainly evident. It has made education accessible to those who may not otherwise be able to. As a result, more and more people around the world become educated. It also saves schools and students time and money. Because it is able to eliminate distance, travel costs decrease by a substantial amount. Furthermore, videoconferences in classrooms also add excitement to the traditional classroom setting. It might not be a perfect replacement, but it tends to spark more interest in learners than the traditional way of teaching. It delivers a new interactive experience to its users that would not be possible without new technology. The ways to teach with videoconferencing are countless, and so are its benefits. Videoconferencing is an innovation that has affected the world's education as a whole. Similarly, Virtual Reality is no longer a mere video-gamer's toy. As previously stated, it is very useful in education for a variety of reasons. It provides students with an interactive experience that is virtually dynamic, making them inclined to learn more. Its popularity has spread to other industries and only continues to become more successful. With traditional teaching, online classes, e-learning, m-learning, blended learning, videoconferencing, virtual reality, what could possibly be next?

[46] Tested according to Kendall's tau-b.

Regarding the quantitative research we performed on the data collected from the students involved in our first project, we tested if online tutoring as a form of education as performed in the aforementioned project is at least equally suitable for grades four and five as for higher grades. The analysis of the data acquired through our questionnaire has shown, that lower-grade students are either more positive about the method (variables grade and increase of students confidence were 11 % monotonicly related), or at least similarly positive as higher grades (which was true for the overall rating of the project). Despite the limitations discussed at the end of the quantitative research section, we may say, that an enrichment of the English language at elementary schools by the means of videoconferences or similar technology would likely be warmly accepted and perceived as beneficial by students. We may also say, that most likely, younger grade students would like it at least as much as higher-grade students.

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ICIE Paris Conference:

(July 7th – 10th 2014): Focusing on Creativity

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It is with a deep sadness I write this preface to this article. The article itself was written in Paris on an impulse just a few days after the July conference. In a sense it was, and for the most part remains, the expression of an inspirational moment in time - if you like, a quick thumbnail sketch perhaps reminiscent of Toulouse Lautrec responding to the sights and sounds of the Moulin Rouge. Inevitably, subsequent events and further observations modify original form and content. As with a thumbnail sketch - so with the substance of this article.

Surely very few readers of this journal would deny becoming disheartened by the seemingly endless conflicts in such places as Ukraine, the Middle East, Asia, and Africa. It is distressing to recognize the human race has come so far and yet it has so far to travel.

It is especially difficult to conceive that the sensitivities of all who attended the conference have not been touched by recent events. The beautiful legacy of dedicated creative people we know today as Paris, suddenly became far less appealing in the face of violence. For many, Paris is now synonymous with a terrible act of terrorism, the impact of which upon individuals and communities has been felt around the world.

For me, it is further proof that while the world staggers under the weight of many perplexing concerns, to experience an event where excited people are energized by the notion of creativity, its potential for innovation, the palpable desire to learn from each other and generate peace, remains uplifting. Ultimately, I want Paris to remain associated with hope, indeed La Ville Lumière.

I have had the distinct privilege of writing about an International Conference on Innovation in Education (ICIE) on a previous occasion after I visited Istanbul. That particular conference afforded all attendees the satisfying opportunity to become familiar with the treasures of that beautiful Turkish city, and, of course, to meet many fellow professionals from distant countries and to learn so much from each other.

In the very same way, this year's conference in Paris was just as satisfying. Paris is a great, beautiful and memorable location. Take a short Metro trip from the Université Paris - Descartes and all of the old city awaits exploration. As a lover of Paris I admit I could wax lyrical at this point, but the more pressing matter is to describe some of the conference events that I personally found especially memorable.

I strongly believe it is important that we, as parents, grandparents, teachers, psychologists, educational researchers, administrators, or some other caring professional, take the opportunity to become more aware and knowledgeable of our children, their strengths and their potential, in order that we support them as they travel towards the new world, with its pleasures *and* problems. We all know at heart, creative, innovative, and critical thinking is the essential ingredient both in finding and determining how problems may be solved.

I suspect conference attendees were not only happy to learn of innovative processes for professional and personal reasons, but also anxious to find ways to meet the needs of young people

whose future depends on the freedom to explore their own creativity in a more peaceful world. For me, that was the underlying theme of the conference.

At the opening ceremony, **Dr. Sandra Linke** – Co-Chair of the conference – announced the fact that 375 people from many different countries were registered. I was able to talk with attendees from such places as far flung as Australia, Canada, Jordan, Poland, Pakistan, Taiwan, Switzerland, Spain and Slovenia, but it was clearly impossible to meet people from all the countries represented. Even so, it was inspiring just to look around in the main conference hall during the hushed but expectant moments before events commenced, knowing that these professionals, so familiar with such a diversity of institutions, cultures and languages, had decided to congregate for these few days to discuss innovative possibilities while learning about creativity in young people.

Jacques Grégoire's presentation, ***Creativity in Mathematics and Science*****,** was excellent. I am not a mathematician by any stretch of the imagination, but he made good on his promise to challenge the universally cherished belief that only musicians, artists and writer are creative. It has long been my own belief that creativity is fundamental to any innovation in any realm of human endeavor. My own work takes me into many schools where creativity, as often nurtured in the visual and performing arts, is constantly displaced in favor of usually more prosaic STEM (Science, Technology, Engineering and Mathematics) activities. I find this state of affairs particularly troubling with respect to highly able individuals who thirst for opportunities to think critically and creatively. The discussion around education and assessment in this regard was highly relevant and greatly appreciated.

Barbara Kerr provided a typically lively and thought-provoking presentation, ***Where is Creativity? Personality, Gender, and Geography in the Search for Innovators***. Judging by the demand for conversation with Barbara after her presentation, I was not the only individual to enjoy and learn from her session. I found myself in complete accord with the theme**.** Barbara posited that "innovation is key to healthy economies." This makes complete sense, yet it is my experience in the United States and other regions of the world I have visited, that the 'identification and guidance of academic talent' is virtually non-existent with respect to both males and female students in educational settings. In my own view, this represents a huge waste of an essential human resource, i.e., creativity. As a professional passionately interested in assessment of potential in young people and, as such, keen to learn more about reliable methods of identifying innovative personalities, I did not leave Barbara's session dissatisfied!

The panel discussion entitled '***Finding the Creative Child': Questioning the Theory and Practice of Creativity Assessment*** was especially memorable for me and colleagues who had accompanied me from the United States. The panel included **Lene Tanggaard, Maciej Karwowski** and moderator **Vlad Glăveanu**. The panelists considered the issue of creativity assessment in schools in depth. The event was open to participation by the audience with the intention of encouraging the expression of multi-various perspectives. The ploy seemed to achieve those ends as members of the audience contributed to a much more comprehensive conversation and deeper understanding of these issues.

All the panelists and participants expressed a desire to shift, what they perceived as the prevailing focus on 'assessment as evaluation', much closer to 'assessment as enhancement and development'. This particular discussion gave rise to important questions, e.g., what is the relevance of testing children? Is testing simply a means whereby we establish the level and nature of their creativity and other abilities, for example, in the context of cognition … but do nothing with the information? While some thought testing and assessment should not be attempted at all, I was relieved to hear panelists and participants alike express the thought that it is relevant … *but* … whatever testing takes place it needs to be meaningful and lead to positive outcomes.

This particular discussion led me to consider the enormous and overwhelming effort to gather data on our children worldwide. I accept data is relevant *and* extremely valuable especially when

considering the best way to facilitate the social emotional and educational development of our children. My colleague, Dr. David St Germain -an experienced principal, has observed that despite its declared value, data tends to be rather inert, i.e., remaining, for the most part, just a set of numbers kept in files and stowed away on a shelf or under the principal's desk. As he said, *"If it is not seen, it is neither read nor put to use."* In my opinion, at so many levels this represents a monumental waste.

If gathering data is so important we must go beyond the luxury of simply collecting sets of numbers. Alan Kaufman (See: http://www.springerpub.com/iq-testing-101.html)) said about testing, *"It is not about a number, but about people."* For me, this implies the imperative for gathering and analyzing data that is holistic. According to the Oxford English Dictionary (See: http://www.oxforddictionaries.com/us/definition/american_english/holistic) holistic means "*characterized by comprehension of the parts of something as intimately interconnected and explicable only by reference to the whole*." David Perkins, the founder of Harvard Project Zero, investigating human symbolic capacities and their development, puts it well when he notes, "*Without the whole picture, we do not see the whole child."* I embrace this notion irrespective of whether or *not* our children are highly able, advanced learners, gifted, talented and creative.

In this context, I considered it an honor that I and my colleagues – **David St Germain**, **Winter Thayer** and **Marion Rogalla** were given an opportunity to share our own innovative work with fellow attendees. Our presentation focused on a system resulting from the combination of methodology and innovative technology. The system – Chandelier© - is capable of capturing, managing, and communicating multiple sets of rich data to provide the 'whole picture' or what I describe as a 'portrait' of an individual.

In reality a chandelier captures and casts points of light by way of the many reflective cut crystal or glass facets. I chose the chandelier metaphor to describe the initial methodology because it does exactly the same. Today, with the Chandelier© (See: Online Roeper Review, http://www.tandfonline.com/toc/uror20/current#.U7vP0vldVvI) system embracing the union of methodology and technology, the metaphor is even more appropriate. Data and information, i.e., metaphorically the facets or 'points of light,' typically emanate from four different but linked directions, i.e., predispositional (e.g., nature), behavioural (e.g., action), psychometric (e.g., cognitive ability), and modifying (e.g., nurture, life's experiences). (See: chandelierassessments.com) for a fuller explanation of terms than is possible, or appropriate in this article. Professionals connected with an institution who may be interested in becoming piloting partners are welcome to contact the author via email: trevor@chandelierassessments.com.

When combined these points of light provide a rich, comprehensive, holistic, finely-nuanced view of an individual found extremely helpful in identifying strengths that may be harnessed over the years in the realization of potential. At the same time the system warns of abilities, perhaps not so strong and which may be in need attention.

Parents, teachers, and others involved with a young person for whatever reason, e.g., caring, guiding, teaching, counselling, are provided with 'points of light' capable of penetrating the 'gloom' and procuring a view leading to a better understanding, more appropriate decisions, and ultimately action that is of much greater benefit overall. In terms of creativity, we have found that when provided with more information those interested in a particular case, e.g., teachers, parents, administrators, psychologists, and the client him or herself, are better able to discern both the problem and potential solutions. Again, this is all to the benefit of the individual.

I realize that the conference played a role similar to that of the Chandelier system – it, too, helped penetrate the 'gloom'. Many people provided many points of light and we were all enlightened in various ways. Actually with so many points of lights available in one place at one time it was humanly impossible to avail oneself of all that was offered. However, after witnessing participants enthusiastically engaged in animated conversations at breakfast, lunch, dinner, and during walks to

and from various hotels it would be reasonable to conclude that very many personal high points were being shared, particular keynotes mentioned, names and subjects repeated, ideas examined, new thoughts explored, cards exchanged and invitations to be heard again in another place at another time offered. I heard epithets such as "insightful," "informative," "superb," "life-changing," "thoroughly worthwhile," and "fascinating".

What *should* a conference be? Surely all who attend come seeking a place and a precious moment time to share, as well as to gain, new knowledge and understanding. They come with curiosity and hope that questions will be answered, decisions facilitated, actions taken, and problems solved. I suspect no conference ever provides solutions to all problems and answers to every question. It may not initiate all necessary actions or prompt all decision making. However, ideally any conference wherever it is held in the world, must provide a moment to step outside our ordinary daily lives and reflect. The Paris conference provided *that* moment.

I believe, as promised, this conference offered each attendee many opportunities to debate the future of education and to explore the latest developments. There was time for different individuals to examine present needs and innovation and visualize how technology might be integrated into education systems globally, to consider what challenges are still to be faced and addressed, to learn from initiatives taken by educational institutions in the different countries represented at the conference and, overall, to engage in conversations focused on theory and practice relating to education in a broad and deep sense. It is true many presenters talked of the highly able and creative individual. However, I am of the opinion that the well-known adage, originally attributed to John F. Kennedy and later to Joe Renzulli, i.e., "A rising tide lifts all ships," underlines an imperative. Namely, all who shoulder the responsibility of teaching and learning - at whatever level, in whatever positive social context and in whatever language delivered - must seriously consider the following: *By promoting excellence in education we serve all.*

About the Author

Trevor J. Tebbs, Ph.D., is a veteran educator who has spent a lifetime working with young people. He received his initial training and experience in the United Kingdom but he now calls Vermont, USA, home. In the United States he has worked as a freelance artist, a college art professor, a special educator, an art teacher and an enrichment coordinator. Trevor studied educational psychology with an emphasis on giftedness and counseling with Joseph Renzulli and his team at the National Research Center on the Gifted and Talented (NRC/ GT), based at the University of Connecticut (UConn). In the last decade he has served the community both as an educational consultant with a special interest in the educational and social emotional concerns of highly able young people and as an adjunct professor offering courses at his local college - Castleton State College - in Educational Psychology, Giftedness, Human Development, Introduction to Psychology and Psychological Testing. His special interest is holistic assessment. He is actively involved as: A member of the Board of Directors - Ablechild.org; Board Member of the Vermont Council for Gifted Education; Assistant Editor - World Council For Gifted & Talented Children [WCGTC] Journal - Gifted and Talented International (GTI); Associate Editor - International Journal for Talent Development and Creativity (IJTDC); and Visiting Professor at the Institute of Gifted Child of the National Academy of Pedagogical Sciences, Kiev, Ukraine.

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ICIE Paris Conference, 2014 Impressions of a Practitioner

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I have worked in the field of peace education, mostly as a classroom teacher, for the past 25 years. This was my first *International Centre for Innovation in Education* (ICIE) conference. I came to the conference with a measure of trepidation and skepticism – expecting an event where academics mostly presented on their educational research, with implicit policy suggestions and teaching recommendations for practitioners, teachers in classrooms – interspersed with inspiring, but mostly theoretical, keynote presentations. I was hoping to learn, of course, but also anticipating a non-meeting of two solitudes – practice and theory – personified by those who do educational research and talk about it at conferences, and those who do educational practice and are talked about at conferences.

However, that is not what I experienced; a noontime conversation on the first day served as a catalyst for my reflections. The 'researcher' with whom I had lunch did not fit the stereotype – she was a university administrator and former classroom teacher, looking for ways to meaningfully link theory and practice. She was keenly interested in how my classroom experience informed her research. She spoke at length about how, in order to be an effective administrator and to do meaningful education research, she needed to keep abreast of teachers' experiences in classrooms.

On the second morning, following a keynote address by a world-renowned scholar, an audience member, an elementary school teacher challenged the presenter on the systemic and political impediments of implementing her inspiring, yet sensible findings on supporting gifted and talented students in real-world schools and classrooms. Her challenge was met with respect and discussion, but also with silence, without pat answers or patronizing responses, and an acknowledgement of teachers' 'daunting' tasks. And such was the overall tenor of the conference, where the teacher's voice was welcomed, embraced, and honoured – and where both 'researchers' and 'practitioners', and all blends between, met in discussion and debate.

According to Johan Galtung (Peace Studies Guru) and Martin Buber, peaceful outlooks begin with 'looking and seeing' in ways that weaken stereotypes and prejudices. This lens allows for genuine dialogue to take place – where a person's thinking includes orienting her/himself to the presence of the other person. This way of communicating – of being together – is what is needed in a world that critical theorists say is rapidly making objects of most of us and where much educational research and practice are driven by economic purposes and utilitarian and technical means.

For as Paulo Freire said, when discussing the purposes of education, if the ontological vocation of human beings is to become human, then dialogue is indispensable to fully realizing our humanity. I witnessed and experienced this type of communication at ICIE 2014. Thank you. I look forward to next year's conference.

www.icieconference.net

Creative Renewal:

Teaching Habits: Reflecting on Creative Renewal

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Abstract

In this article, the author fears that his teaching has become boring and lacking in creativity. After analyzing his teaching habits, he recognizes some important values and strategies that may redress this situation.

There's something magical about teaching aspiring teachers, students who eagerly anticipate that you will fire their passions, and inspire them.to be more than simply fonts of knowledge, but to actually be conduits of meaningful learning and perhaps even personal wisdom. That's on a good day.

On a bad day, each and every one of my years of experience weighs on my rapidly fossilizing cognitive bones, and each and every one of the course theories and concepts that I'm contracted to teach strikes me as being banal and vacuous. More disturbing still, the theories seem to become like turgid monoliths, disengaged from authentic relevance.

Most days, thank goodness, I feel extremely fortunate to be able to work within the university environment, teaching a second year educational learning theory course. However, there's no question there are times when my creativity flags, certainly due to having taught the course for so many years, and also due to the repetitive nature of adhering to the relatively standardized curriculum of a required course.

Lang (2012) has stated that the primary goal of higher education should be to turn out innovative thinkers, which would require universities to "scrap the model of instruction that's prevailed for hundreds of years" (p. 229). Rather than adhering to the stereotypical notions of lecture-delivering 'experts' driving the top-down narrative, emphases should rather be placed on more interactive and learner community-based strategies to elicit self-determined curiosity and passion in our students, and dare I say, in ourselves.

In my attempts to be 'professional' and 'scholarly' in my teaching, have I become 'old-school' in the worst sense of that term? Have the teaching skills that I've worked so hard to master over the years lost their elasticity, and have I sacrificed a degree of spontaneity and innovative creativity in adhering, with the best of intentions, to what 'best practice' is really all about?

My purpose in this brief pedagogical exercise is to observe how I teach my learning theory course, and to identify the incremental steps that have perhaps become habituated into automaticity and mastery on the one hand, but also into a creativity vacuum on the other. Brookfield (2006, p. 27) has suggested that it is not unusual for teachers to go on "automatic pilot" in their teaching, especially if they have been in the field for many years, and that using "critical reflection" can address and alleviate this problem.

By utilizing an informal variation of critical reflection (in heuristic terms, to 'unpack'), my objectives are to renew how I look at my students, the course, and myself, to develop a deeper understanding of masterful execution, and to envision a fresh perspective on where creative opportunities lie in enlivening my teaching practice. Additionally, my hope is that this variation of

action research (Hendricks, 2006; Johnson, 2008) connects with others in our educational community and contributes to further inquiry about sustaining creativity in our pedagogical methods.

Planning

I start my course preparation by looking at the bigger picture: Are there specific faculty or administrative concerns that need to be addressed? My section is one of many offered to students at my university, and we aim to have some consistency and standardization from section to section, including using the same textbook, *Principles of Educational Psychology* (Ormrod, Saklofske, Shwean, Andrews & Shore, 2010). One of my sections each year is synchronized with the students' practicum placements, allowing me to then provide more direct linkages between course theories and the students' authentic experiences in the schools. This opportunity is lacking in other sections in which the practicum is scheduled as a block at the end of the term, after our course has ended.

I then review the most recent student course evaluations as well as my own ongoing journal entries to identify if any problem areas exist in the content or delivery of the course. Keeping my own personal journal throughout each course is key. My emphasis is to 'monitor (student engagement and efficacy) and modify (my pedagogical strategies).' Simply put, I keep track of what works and what doesn't work in getting students involved, and identify which particular classes and related activities tend to be tedious, and which ones resonate more with students, keeping them engaged, passionate, and on-task. I explain to the students that I am also constantly striving to get better as a teacher, and that the concepts and values we study in the course are also valuable to my development. In effect, I am modelling to the students that personal and professional growth are intertwined and ongoing.

It is then time to develop the course outline, which may appear obvious and superficial, but is far more valuable than that. The outline, when presented to the students as an ongoing covenant of shared responsibilities within a learning community, establishes an epistemological template for the whole course. The assessment weightings allocated to the paper, tests, and other types of evaluations convey the value of each component within the structure of the course.

After experimenting over the years, I have settled on three tests worth 25% each (reflecting the theory-heavy nature of the course), an integrative paper worth 15%, and 10% for the students' self-assessments of their participation, organized note-keeping, and reflective journals. Direct emphasis, expressed in the outline and throughout the course, is placed on developing personally-relevant connections with the course theories and concepts and on constructing personal meanings about those connections.

Each class requires the identification of themes and topic 'hooks' (an initial question or issue that provokes interest), as well as selecting or creating a variety of relevant personal and group activities to support that class's agenda. The content of each chapter stimulates what I hope are creative adjustments in how I teach that particular chapter.

For example, the section on multiple intelligences has spurred me to develop a guided reflection whereby students are to elaborate in their personal journals about their own individual types of intelligence. To illustrate themes and concepts in the 'Social Cognitive Views of Learning' chapter (a chapter that emphasizes modelling as an instructional strategy), I have, on occasion, used a basketball to demonstrate the differences between auditory, visual, and kinaesthetic skill development in learning how to shoot.

To illustrate the importance of role models in advancing one's emotional and cognitive development (again, in the 'Social Cognitive Views of Learning' chapter), I have developed what I call a 'Graffiti Board' exercise whereby students write brief quotations on the board and then discuss with the class why those quotations are meaningful to them. In effect, I attempt to utilize actions and strategies derived from the course concepts and theories to teach the actual course concepts and

theories. I have subtitled the course 'Relationship and Relevance' as an essential synopsis of what I see as the two core aspects of effectively-administered Learning Theory: Students become better learners when the course material is relevant to them, and when they feel supported by strong relationships with their teachers and their fellow students.

Teaching

Every class has a rhythm and an implicit, perhaps even explicit, structure to it. This can be a good or a bad thing: a comfort zone for both the students and the teacher, or a trap that hijacks creativity. Am I open to spontaneous detours? Are there certain issues and areas that I avoid or stumble on, and how could I improve my responses?

After I present the advance organizer (through which I describe the class structure and how the main themes relate to what we've covered previously), we then discuss the thematic 'hook,' breaking the proverbial ice and warming the students up for further participation. Some degree of exposition and related discussion follows, with a variety of relevant personal reflections and group activities included to vary the pace.

At the beginning of the term, I usually provide more direct input and explicit scaffolding into the reflections, activities, and discussions. Reflections and journalling have a long and productive history as adjuncts to personal and professional growth (Hedlund, Furst, & Foley, 1989; Hoshmand, 1993; Progoff, 1975; Schön, 1987; Shapiro, 2004), and I have experimented with many styles and methods throughout the years. Over the course, students typically develop more metacognitive efficacy and become more self-directive with their reflection journals as well as in the discussions and activities, so I subsequently modify my involvement to be more facilitative than directive and to allow more free-form spontaneity. However, there's no doubt that in trying to balance the curriculum requirements with allowing the students to freely express their personally-relevant stories and connections, I sometimes err on the side of being a Curriculum Tyrant.

This is particularly evident when major events have occurred, either in the students' lives or in our larger community, as for example, when family members have died, or when natural disasters have occurred. As Kumashiro (2004) explains, courses are typically constructed of both intentional and unintentional curricula, dependent upon "the unique lenses [students] use to make sense of their experiences" (p. 35).

I attempt to provide space for such sense-making conversations, conversations that can be linked to our course contexts, thereby creating shared 'teachable moments.' I find myself checking my internal clock frequently, though, and imagine that this might be perceived by the students as rushing or denigrating the process. I have framed the issue in my own mind as one of Curriculum versus Current Events, and, have often, perhaps unwisely, chosen to defer to my Inner Tyrant. When class time stalls or doesn't appear to be productive, my inclination is to talk more, to get more scholarly, to fill the space, when perhaps the more beneficial approach might be to invite the students in to share the space, to let it breathe, and allow the students to be co-creators of our 'teachable moments'.

A related issue occurs when students dig deeply into relating personal experiences to the course material, so deeply that discussions can become almost therapeutic in nature. I make it clear to students that certain boundaries exist, and that an educational context is not ethically appropriate for therapeutic work per se; however, learning to bracket off personal relevance and meaning in some cases but not in others, is a challenge for the students, as it would be for most of us. By limiting deep explorations, we may risk inhibiting the development of empathic relationships as well as a deeper understanding of our shared humanity. As Chödrön (2002) has suggested, psychological and emotional situations that manifest fear responses are often the sources of the greatest potential for positive change.

Evaluating

What I have found through conducting this exercise is that the nature of my inquiry has changed; I started the process looking for (linear and cognitive) examples of creativity and lack thereof, but instead have discovered that the most important aspect of creative teaching is more about enhancing human relationships.

The evaluation process within our course crystallized this awareness. I teach my students test-taking and other metacognitive strategies to prepare for the various assessments. Students usually feel more comfortable and more secure in their self-determination as a result. I also use item analysis and item discrimination to determine if there are any problem items on the tests, and will, on occasion, take responsibility for either poorly-worded questions or having delivered mixed messages in teaching the applicable concepts or theories. There's nothing particularly creative in utilizing these tools, but students respond positively to the implicit value inherent in their usage: I'm acknowledging that I, as the so-called expert, may have 'messed up'. The result is a stronger, more respectful relationship in which we can both be fully human, warts and all.

The students also strongly appreciate taking on the responsibility of grading themselves on participation, note-taking, and their reflective journals. I meet individually with each student at the end of term to discuss their self-assigned grades, and more importantly, their grading processes and strategies. Most students feel tremendously empowered doing this, and seem to enjoy sharing with me what they have learned throughout the course, and what it has meant to them.

The reflections are a key aspect of this. To many students, the most meaningful reflections were the 'bookend reflections' during the first and last classes when students were asked to reflect on what or who inspired them to enrol in education, and to describe their strengths and challenges in becoming teachers. During the last class, we revisit the issues to gauge if there have been any changes in their views. Again, there's nothing particularly creative about utilizing these strategies, but implicit in using them is the value of being respected in the relationship: people like to tell their personal stories, and typically feel empowered by doing so. Given the students' enthusiastic responses to shared storytelling, I think that scheduling brief one-on-one meetings with each student at the beginning of the term will make our student-teacher relationship even stronger, and add more of an informal mentoring aspect to these relationships (Huang & Lynch, 1995, 1999; Kroeker, 2008).

Regarding the Curriculum versus Current Events and my Inner Tyrant, I believe that, again, the answer might be different than what I was looking for, but might be exactly what I need to renew my creativity. Rather than trying to shoehorn every issue and every curriculum topic into every class, learning to relax and to allow the situation to unfold with the students as co-creators might be beneficial. If the situation spirals out of my apparent control (a horrible thought to a Type-A personality), the worst that can happen is that I've covered a little less of the course curriculum than I would have liked; in effect, becoming more congruent with the textbook's admonition to focus on 'less rather than more' and to allow for more depth of exploration. I'm reminded of a particular class when I suffered a serious brain cramp in the middle of a major lecture, and lost my train of thought completely. I was embarrassed, but the class treated me warmly, as if I was their endearingly incompetent grandfather. It is at times like this when I need to embrace my own flaws and contradictions, to value the wonder of being perplexed, and to advocate for a "pedagogy of the bamboozled" (Elbow, 1986, p. 87).

Revisioning

Rather than defining and constraining creativity as an 'aha-producing' tangible act, it is perhaps best understood within educational contexts as a process of developing effective and flexible professional habits, as moment-to-moment adjustments in how one prepares, relates to and interacts with one's students. Creativity is not only an expression of intelligence, but also a catalyst of

innovative thinking through inspiring self-evaluation, self-determination and resilience (Cropley, 2001).

As I recommit to the ongoing process of developing good professional habits and to 'inhabit' those, fully and completely, I am continuing to realize that the 'small, incremental steps' that I foster in myself and in my students can be viewed as incremental steps on a much deeper journey. As a student or as a teacher, preparation, engagement, and evaluation help set the stage to creatively renew one's personal and professional perspectives. To 'monitor and modify' is not simply a prescription for teaching, but for living as well. Like the proverbial Zen tea ceremony (Suzuki, 1964), imbuing each small step in the process with one's full, integrative attention provides 'best practice' for encountering life's travails.

For educators, the classroom is our tea ceremony, our crucible for deeper learning. Whether we call it integrative (Palmer & Zajonc, 2010), contemplative (Barbezat & Bush, 2014) or mindful education (Rechtschaffen, 2014; Tart, 1994), it represents a lifelong quest for wisdom (Nagel, 1998), where each step in the shared educational journey can become magical.

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About the Author

Randy Kroeker, Ph.D., has been a counsellor and educator for over 35 years, and is currently an Associate Professor in the Faculty of Education at the University of Winnipeg in Winnipeg, Manitoba, Canada.

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Connections across Cultures: Letters to our Children

Karen M. Magro [1]; Lorelle Perry [2]

[1] University of Winnipeg, [2] KidBridge Program, Winnipeg, Manitoba, Canada

A uniquely creative adult literacy program in downtown Winnipeg, Manitoba. It is focused on helping newly immigrated and refugee women gain linguistic literacy and personal empowerment as a first step in gaining valuable personal and academic foundations. Teacher Lorelle Perry has organized a weekly English program for immigrant women and their young children called "KidBridge" as a way of addressing some of the socio-cultural and literacy challenges that face newcomers. Self-awareness, empathy, motivation, and resilience are among the personal skills that are integrated with literacy skill development.

KidBridge's (2014) book *Letters to our Children: The Memories, Challenges, and Dreams of Mothers New to Canada* is an example of the importance of affirming and valuing our students' narratives. The book is comprised of letters from newcomer mothers who explain to their children the factors that led them to leave their homeland in search of new opportunities and a safe haven in Canada. The newcomer adults come from countries such as Burma, Eritrea, Iraq, Lebanon, the South Sudan, The Democratic Republic of Congo, Iran, the Philippines, Burundi, and Bhutan. Each compelling letter captures the struggle, strength, and resilience of women who are in the process of adapting to and integrating into Canadian society. Many of the letters reflect the anguish and personal toll that ongoing war and civil strife have had on individuals and family.

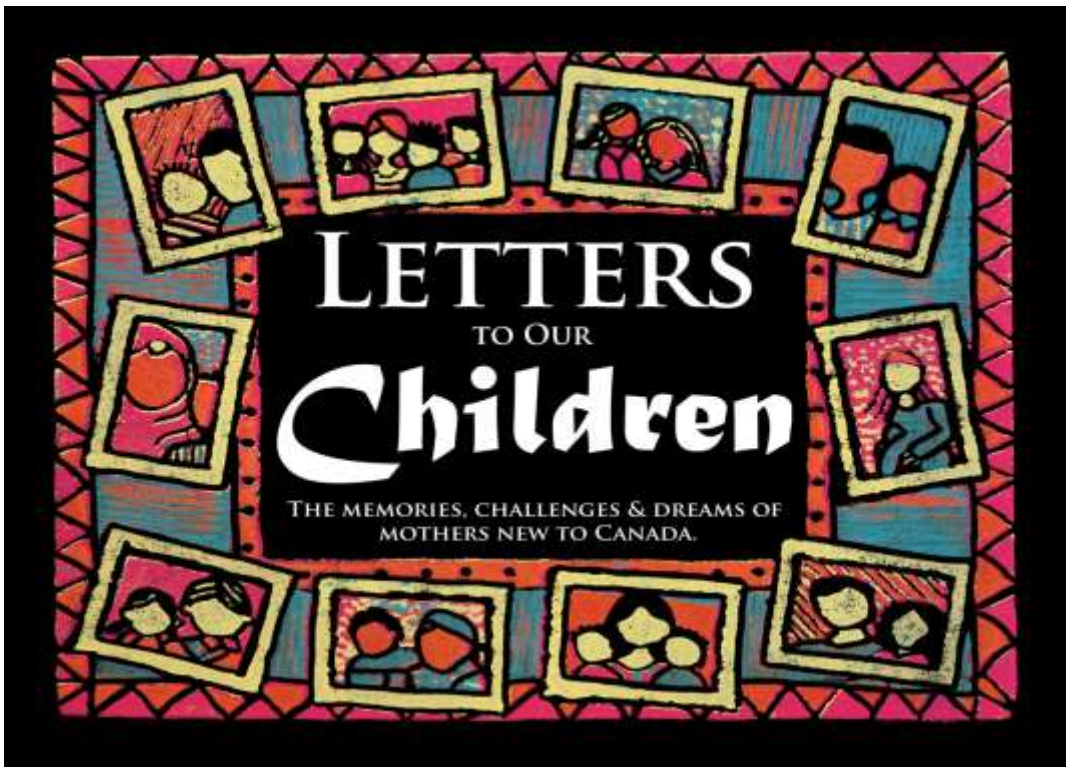
The psychological, situational, and cultural barriers can be overcome not in isolation, but within the context of a community that understands, values, and extends educational resources that will lead to personal and social empowerment. Indeed, the trauma of war does not necessarily end when a refugee forced to flee their homeland finds a haven of safety. The trauma of losing family members, financial hardship, learning a new language, the complex process of immigration and resettlement that may involve relocating to more than one city and country, and navigating unfamiliar cultural, legal, educational, and socio-cultural contexts are all challenges that require learning. An insightful and sensitive teacher who is able to create a haven of resilience and a climate of respect and safety can be a catalyst to the road of success for many adult learners. In this context, literacy learning is integrated with personal development.

In reflecting on Canada's history and its progression toward a multicultural mosaic that is strengthened by the unique contributions of diverse cultures, former Canadian Governor General Adrienne Clarkson draws on the wisdom of Aboriginal elders who view the circle as a symbolic unifying force for community, both locally and globally. Identity, citizenship, and belonging are strongly interconnected and when we value the unique talent of each community member, creativity can be channeled in productive ways that reflect a reverence for humanity and the natural environment. Clarkson writes that "in a circle we have to meet as persons, and we have to acknowledge that we share a cultural heritage or even just the land

we are standing on. And we cannot deny to others the right to belong. It is the most profound acknowledgement of our belonging to the human race" (p. 7).

Along similar lines, personal narratives and stories are one way we can show this respect. Social justice researcher Jessica Senehi (2013) explains that "all human rights movements require their storytelling being told in order to build empathy and understanding of their experiences and to make an effective call for justice" (p.123). Drawing from the works of critical adult literacy theorist Paulo Freire, Senehi asserts that transformative education is rooted in personal experience and has the potential to be therapeutic and empowering. Storytelling in many forms, whether it be oral expression, through letters, memoirs, or discussion groups can be a way to bridge gaps of cultural differences. "Hearing another person's story promotes empathy and recognition of a common humanity…knowing and celebrating one's own cultural story builds self-esteem" (p.124). Senehi draws on the work of Mara Sapon-Shevin (1990) who refers to inclusion as "being able to connect to all parts of one's identity in the classroom without having to deny or mask key aspects of one's values and practices" (Senehi, 2013, p.123). Peace and social justice programs in Ireland and South Africa, Senehi explains, use forms of narrative storytelling and narrative writing a as way to encourage collaborative power and mutual recognition, thereby leading to greater empathy, intercultural awareness, dialogue, and critical insight.

Letters to our Children reinforces the need for communities to build an *asset* model of education that recognizes the potential of children and adults alike to contribute in positive ways to building communities of hope and prosperity. Perry's work with adult learners and their youngsters further emphasizes the importance not only to ensure quality education for children, but that educational resources and opportunities be given to adults who wish to realize their educational and career aspirations. Education in this context is dynamic, multi-dimensional, and lifelong.



Lorelle Perry writes:

In Winnipeg, Canada, newly immigrated women and their young children gather weekly at *KidBridge* to practice spoken English, participate in literacy initiatives, and get to know their new neighbours.

In one unique literacy initiative, 18 immigrant and refugee mothers representing 12 different countries compiled and illustrated a book entitled *Letters to Our Children*. In it, each mother shared with her child[ren]: 1) why she left her country and what she misses, 2) what she loves (and finds difficult) about living in Canada, and 3) her dreams for their future in their new homeland.

The letters were first written by hand in the mother's native language, and published along with its typed English translation. Vibrant block-print illustrations accompany each letter, created by the mothers with the assistance of international printmaking artist Karen Cornelius.

The completed book was donated to local libraries and classrooms, where mothers read their letter aloud to their child and shared with his/her classmates about their country and culture of origin.

A documentary film entitled "*Letters to Our Children: Stories of Refuge"* produced by director Leona Krahn, follows the making of this publication and offers a deeper insight into the lives of its authors.

Included below are two examples of the mothers' letters to their children.

> *"We have been in Canada nine months now, and there are things I miss in Congo. In Congo our food is always natural and is always fresh. Also, we don't have winter-- the air is good every day. In Congo, children always show respect to adults, even if they don't know them. I miss these things-- and I really miss my parents and my friends.*
> *However, what I love about Canada is ... there is peace, there is freedom, and women are respected. In my country women are not respected. Many women experience violence from men, and many husbands don't care for their families. But in Canada, women are respected and the government takes an interest in the future of children. This is what I love..."*
>
> -JUDITH, Democratic Republic of the Congo

> *"I left my village in Burma when I was a baby because of the war. We had to move to save our lives. We lived on the border between Burma and Thailand. We had to move from place to place, and we did not always have a nice house or food and clothes. We slept on the ground under trees. Some children were very hungry and got sick. Some even died.*
> *There was no school to go to, so we didn't get an education. I started school when I was eight years old. That is why I am very happy we had the opportunity to come to Canada, get a good education, and save our lives. When I was 13 years old, my family moved to a refugee camp in Thailand where we stayed the next 17 years. I miss my relatives who are still in*

Burma, as well as in the refugee camps in Thailand who cannot return because of the war..."

-MOOLWEH, Burma

"I didn't have any choice but to leave your brother in Ethiopia. He was only twelve years old when I escaped....
Three years after we arrived in Canada, cancer was found in my body... I am thankful that a miracle happened and I am alive today. If I had still been in Ethiopia when I had cancer, I would not be alive right now. Really, God bless Canada.
Children, my dream for you is that you will have great personalities and great careers. Remember you don't always have to expect others to love you all the time; just you love everyone and respect them. Be honest and a good example for others. Help those who need help. You know why I always talk to you about love-- it is important.... I dream for the day I can see all of my children together in the same place. I love you all..."

-MESKEREM, Ethiopia

For more information about this program, you can visit: www.KIDBRIDGE.CA

A recent film directed by Leona Krahn of *Krahn Communications Inc.,* features the life stories of many of this programs' participants.

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Lost Prizes – ICIE Seminars

(Winnipeg – Canada: July 8 – 11, 2015)

Lost Prizes International (LPI) and the International Centre for Innovation in Education (ICIE) are pleased to announce the 3rd Annual Lost Prizes-ICIE Seminars. This year's event will take place July 8-11, 2015 at The University of Winnipeg. Post-Baccalaureate Diploma in Education courses will be offered prior to and following the seminars. Conference-connected courses will include *Bullying Affected Children, War Affected Children, Topics in Risk and Resiliency, Social Justice Inside and Out, and Unengaged to Engaged Students.*

This year's program will feature the following keynote presentations:

Healing Invisible Wounds

Steve Van Bockern and Mark Freado

It is critical that trauma exposure be considered in our work with children and youth. Young people who suffer trauma are more likely to develop life-long complications that can adversely affect quality of life. Traumatized children can experience developmental delays, decreased cognitive abilities, learning disabilities, and even lower IQ levels. Traumatized children often present delinquent behaviour. Even so, it is important to see trauma as an experience rather than a diagnostic category; an experience that a helpful and caring adult can use to help the child heal and grow. Using case studies, Mark and Steve will share experiences drawn from their work with traumatized children.

Responding to the Inside Kid

Mark Freado; and Steve Van Bockern

Young people are considered troubled, disturbed, and at risk because of the behaviours they display on the "outside." Adults often react to that behavior with sanctions, restrictions, rejections, and other shaming remedies that don't serve anyone in the long run. In fact, those reactions often increase painful emotions and thoughts "inside" the child. Now, with a better understanding of how the brain works, we can learn to respond (rather than merely react) in ways that restore children without adding more pain (punishment) in their lives. Using personal case studies, Mark and Steve will share lessons learned.

Steve Van Bockern is professor of education and special education at Augustana College, Sioux Falls, South Dakota. He serves as Dean of Reclaiming Youth International. Drawing on experience as a public school principal and teacher at the elementary and secondary levels, Dr. Van Bockern consults with numerous schools and alternative education programs throughout North America. He has directed grants for the National Science Foundation and the Kellogg Foundation and has developed programs for talented students. Dr. Van Bockern serves as co-director for the Black Hills Seminars held annually in South Dakota.

Mark Freado is a forensic psychologist who serves as President of Reclaiming Youth International. His 35-year professional career encompasses contributions to the mental health field, public education, social services, program development, leadership, consultation, and training. Freado has worked with private providers and public agencies throughout the North America, Europe, and Australia delivering consulting and training services. He is a frequent practitioner of the Developmental Audit, providing evaluations, reporting and expert testimony on behalf of youth in the

juvenile or adult judicial systems. He specializes in program assessment, development, and adaptation, leadership skills training and consultation, and interventions for at-risk and disadvantaged children, adolescents and their families.

Bullying and Violence Prevention

John Hoover

In this presentation, Hoover offers ten truisms about bullying. These maxims serve to orient participants to definitory constructs, correlates [with bullying] (especially suicide, learning, and giftedness), and prevention/amelioration. A fair amount of humour will be used to engage the audience in this otherwise deadly serious presentation.

John Hoover, hailing originally from Richfield, Minnesota (USA); earned a Bachelor of Science degree in Education and Psychology from St. Cloud State University in 1978. Two years later, he was awarded the M.S. from The University of Illinois, Champaign-Urbana. Hoover earned a Ph.D. at Southern Illinois University in 1988. He served as the Director of the Bureau of Educational Services and Applied Research at the University of North Dakota from 1997 to 2001. He accepted an appointment at St. Cloud State, his alma mater, in Special Education; where he was elected Chair in January of 2003. In July of 2006 he was appointed Associate Dean, College of Education. As of July 1, 2011, he became Assistant to the Dean for Assessment and Accreditation. Hoover serves presently as a Professor of Special Education and research director for a reform project funded by the Bush Foundation. Hoover's academic interests are in bullying and child-on-child aggression, transitional services to students with disabilities, cognitive aspects of learning, and general program assessment/effectiveness.

Mind the Gap: Inequality, Inequity, and Indifference

Jan Stewart

The international community has done little to address the inequities between the Global South and the Global North. Concomitantly, children and youth must contend with widespread and pervasive inequalities and injustices. Extreme poverty and the denial of basic human needs such as food, water, shelter, health care, and sanitation — coupled with limited access to education, gender inequity, and political instability — are just some of the systemic and long-term challenges facing more than a billion of the world's people. More than 45 million individuals have been forcibly displaced from their homes as a result of conflict, persecution, violence, and human rights violations; nearly half of these people are children. When educators and other caregivers are willing to address issues of social justice with a sense of urgency and expediency, we can close the gap with our shared compassion, innovative thinking, and concrete action to create a more democratic society that is just, sustainable, and peaceful.

Jan Stewart, Ph.D (Manitoba) is an Associate Professor and Coordinator of Advanced Programs in Education in the Faculty of Education at The University of Winnipeg. After teaching and counselling at all levels from Kindergarten to Grade 12 for 18 years, Jan joined the Faculty of Education at The University of Winnipeg in August 2006. Since then she has conducted numerous seminars at national and international conferences on the needs and educational challenges of children who have been affected by conflict, violence, abuse, mental health issues, neglect, and human rights violations. She is the author of *The STARS Program*, University of Toronto Press (1998) and Hunter House Publishers (2005), *The Tough Stuff Series Middle/High School,* Jalmar Press (2002), and bestselling book, *The Anger Workout Book for Teens*, Jalmar Press/Pro-Ed (2002). Her new book entitled, *Supporting Refugee Children*: Strategies for Educators, published by University of Toronto Press, has received international accreditation and formal endorsements from leading researchers and public figures in the

fields of education and migration. Jan was awarded The 2012 Professional Contribution Award from the Canadian Counselling and Psychotherapy Association and she received The Marsha Hanen Global Dialogue and Ethics Award in 2010.

One Great City: Adopting a Community Cultural Wealth Lens

Marc Kuly

Winnipeg is at a crucial historical moment in its history. How will our schools respond? Will our classrooms be little boxes ignoring the ethnic, social, and economic divisions that have created a divided city or will they be laboratories for turning deep cultural diversity into the building blocks of a just and robust community? Using stories of real Winnipeg students and teachers, this keynote will explore how adopting a community cultural wealth lens might help us use our time together in school to build the city our children deserve.

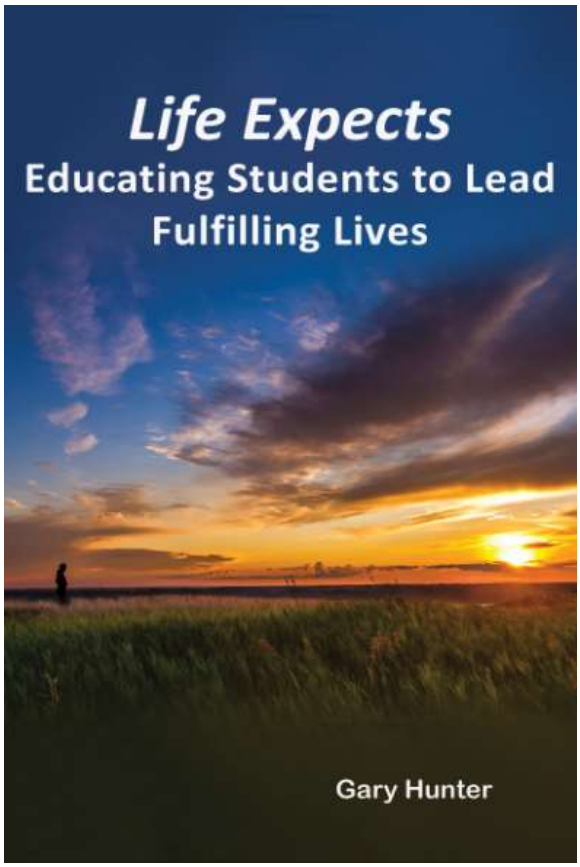
Marc Kuly, M.Ed is a teacher, storyteller and dad. He works with students and teachers in Winnipeg's inner city to build community, storytelling and thoughtful human connection into classroom life. Marc has told stories and given lectures on his own and with his students across the city and the country.

Book Review

Life Expects: Educating Students to Lead Fulfilling Lives

Gary Hunter (2014)

Book Review by Dorothy Sisk



Life Expects: Educating Students to Lead Fulfilling Lives by Gary Hunter is a stimulating, informative, provocative, and well-referenced book that focuses on unleashing human energies, passions, and talents. Hunter's paradigm Life Expects has its primary inspiration and conceptual roots in the work of Victor Frankl who recounted in *Man's Search for Meaning* how prisoners in the concentration camps lost their will to live because they felt there was no longer anything worth living for, nothing left to expect from life. Frankl surmised there was a need to teach the despairing men that it didn't really matter what they expected from life, but rather what life expected from them.

Hunter's Life Expects paradigm calls for individuals to believe and act on the conviction that we are called by life from within by inner voices, to certain destinies, and that we answer this call by discovering and rendering our unique gifts to the world. He contrasts the Life Expects paradigm with the I Expect paradigm. Hunter builds a strong case for the dominance of the I Expect paradigm in today's world with our obsession with individualism and an emphasis on personal rights and freedoms. As people emphasize individualism and center on self, Hunter points out that many people in striving for self-fulfillment have become less concerned with others. He uses a quotation from Jean Vanier to support the Life Expects paradigm:

> Each of us has an instrument to bring to the vast orchestra of humanity, and each of us needs help to become all that we can be.

Hunter is a realist and recognizes there are numerous challenges and demands made on teachers who endeavour to implement the Life Expects paradigm in their teaching. He predicts teachers will experience resistance from students, parents and colleagues, and he shares "stories" from his own experiences in introducing the Life Expects Paradigm at the University of Manitoba. The infusion of "stories" is one of the prime assets of this book. There are stories from Hunter's wide educational experiences and that of numerous exemplars who lead lives that Life Expects one to lead. To withstand resistance to the implementation of the Life Expects paradigm, Hunter suggests that teachers need to be compassionate, patient, and steadfast.

In Chapter Three, there is a discussion of what really matters in life and education, and ways to resist living lives of quiet desperation as described by Thoreau. Hunter discusses how our inner voices can be hijacked by outer voices that help to destroy our authentic selves, and the importance of teachers inspiring students to lead the lives Life Expects them to live. A strong conviction that teachers can make or break students is introduced in this chapter, and the term “tapping” is used to describe how teachers can tap into their students’ personal fascinations to discover their unique gifts, and provide opportunities for them to render their gifts. Great examples of teachers who do just that are provided including Elliott Wigginton and his Foxfire experiences.

Chapter Four identifies the characteristics teachers need to have to engage students in a Life Expects classroom. Life Expects teachers are described as idealists, authentic, self-determining, generous, and able to nurture the hearts of troubled students. Multiple authors and examples of teachers who model these characteristics are woven throughout this chapter. Chapter Five discusses meeting the critical student learning needs in the Life Expects curriculum. These needs include: Safety, belonging, and confidence-affiliated learning needs (feeling responsible, successful and affirmed). This chapter is replete with examples of educators who increased the independence and self-direction of their students, and tapped their unique gifts. Chapter Six introduces the concept of deep teaching rather than surface teaching. The key to deep teaching according to Hunter is few, significant, and thorough. By saving time with deep teaching, teachers can then ask students to identify defining moments in their life in which they discovered their calling; engage students directly in their fields of study; impress upon them the value of solitary reflection; and provide experiential learning.

Chapter Seven provides an introduction to habits of character for the Life Expects paradigm. Hunter stresses that attitude precedes habit, that habits of character are behavioural and observable, and habits can be introduced at every grade level. Steven Covey's definition of habit as the intersection of knowledge, desire, and skill is used by Hunter to identify four habits in the Life Expects paradigm. Habit #1- Having the Courage to Be is discussed in Chapter Eight; Habit #2- Valuing Process over Outcome is discussed in Chapter Nine; Habit #3- Aspiring to Measure Up is discussed in Chapter Ten; and Habit #4- Having an Abundance Mentality is discussed in Chapter Eleven.

In Hunter's Final Thoughts, he reiterates his belief that we are in this world by invitation and that in return for the privilege of being here, we are expected to contribute to making it a better place, and in this process lead fulfilling lives. Life Expects: Educating Students to Live Fulfilling Lives provides invaluable reading for those engaged in initial teacher training and professional development, plus all points in between. It is an exceptional "read" with a wide collection of authors, thought-provoking quotations, and practical application activities to invigorate the thinking of the reader, and points the way for teachers, parents and significant others to educate students to lead fulfilling lives. In addition, individuals who embrace the Life Expects paradigm will be empowered to lead fulfilling lives as they model the behaviour and habits suggested in this jewel of a book.

Reference

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ISBN: 9780993613418

Submission Guidelines

Manuscripts submitted to the **IJTDC** should contain original research, theory or accounts of practice. Submission of a manuscript to the **IJTDC** represents a certification on the part of the author(s) that it is an original work, and that neither this manuscript nor a version of it has been published previously nor is being considered for publication elsewhere. If accepted by this journal, it is not to be published elsewhere without permission from the **IJTDC**. However, conference papers included as part of conference proceedings may be considered for submission, if such papers are revised in accordance with the format accepted by this journal, updated if need be, and full acknowledgement given in regard to the conference or convention in which the paper was originally presented.

Electronic submission

Authors should send the final, revised version of their articles in electronic form. Submit the final version to the journal's editorial office.

All submitted papers are assessed by a blind refereeing process and will be reviewed by at least two independent referees. Therefore, avoid clues in the text which might identify you as the author. Authors will receive constructive feedback on the outcome of this process. Please note that the process will take two to three months in duration.

Manuscripts should be written in accordance with the publication manual of the American Psychological Association (**6**th Edition). For example, the following should be adhered to:

Title page

Include title of paper, name(s) of author(s), affiliation, mailing address (include postal codes, if applicable also e-Mail address and fax-number) and a running headline. The title page will be removed by the Editor-in-Chief prior to the refereeing process to allow for a masked review.

Abstract

Should consist of a maximum 200 words on a separate page. The abstract must, if the result of empirical research, briefly outline theoretical basis, research question(s) (in one sentence if possible), methodology and instrumentation, sample(s) and pertinent characteristics (e.g., number, type, gender, and age) as well as the main findings of the study (if applicable include statistical significance levels). Also, include conclusion and the implications or applications.

An abstract for a review or a theoretical article should describe in no more than 150 words the topic (in one sentence), the purpose, thesis or organising structure and the scope of the article. It should outline the sources used (e.g., personal observation and/or published literature) and the conclusions.

Length

A paper submitted should not exceed 7000 words including abstract, keywords, references, and illustrations.

Language

The **IJTDC** is an international scholarly journal and papers should be written in English. It is recommended that non-native English speakers have their papers checked in regard to language accuracy prior to submission. British spelling, as well as American spelling is accepted.

Manuscript

Papers must be word processed, and printed or photocopied with a clear print, double-spaced and with margins of at least 4 cm (approximately 1.5 inches) on all four sides. Use one side of the page only.

Statistics

Are an aid to interpretation and not an end in themselves. If reporting statistics, include sufficient information to help the reader corroborate the analyses conducted (cf APA-manual).

Qualitative data

If submitting a qualitative study, be sure to include a discussion on the stringency observed whilst obtaining and analysing the data (e.g., biases, analysis model, transcription keys, validation of results and so on). Include sufficient data to help the reader, as far as possible, to corroborate the analyses conducted.

Footnotes
Should be kept to a minimum or preferably avoided completely. If used, they should be numbered consecutively with superscript Arabic numerals.

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