

Building a Culture of Completers by Understanding the Etiology of Adult Learning Deficits Stemming from Childhood

Theresa D. Neimann

Oregon State University, USA

Uta M. Stelson

Huainan No. 2 Middle School, China

Stefan J. Malecek

Saybrooke University, USA

INTRODUCTION

Universities and especially community colleges suffer from educating cohorts of non-completers (McKinsey & Company, 2009). Many of their students lack the complex cognitive skills necessary to access a liberal arts education. They may also lack the required necessary communication skills and even basic technology know-how as well as other skills that are just the basic transferable competencies needed in the workforce. Students also need to possess, but often lack, in their educational portfolio the ability to analyze processes of discovery that pave the way to further education which opens doors to science, literature, the arts, and other knowledge that contributes to professional development, life-long learning and personal fulfillment. However, if adult students cannot complete their academic goals in college or university because their most fundamental needs toward survival have not been met then higher education has failed. To understand why there are so many non-completers, it is imperative to understand how childhood trauma, and especially poverty, affects brain development, which in turn can be one of the causes of learning gaps in adults (McKinsey & Company, 2009). The authors' concern is changing teaching practice to include a holistic transformative teaching approach which will help close achievement gaps of adults facing life challenges. Though achieving change in teaching practice is a challenging process, the authors suggest that teachers need to understand the ramifications of Maslow's Hierarchy as a theoretical consideration to learning gaps in adult education. In transformational learning the educator becomes a facilitator: he or she teaches through facilitating conversation and conducting jointly productive activities that enable students to learn through activities that are shared by educators and students.

For the purposes of this chapter, the term transformative learning is to be understood as:

the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets, mental models) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective, so that they may generate beliefs and opinions that will prove more true or justified to guide action. (Mezirow, 2000, pp. 7-8)

Transformational teaching is the opposite, but complementary, side of this coin in that it enables a learner to learn transformatively by facilitating the transformation of the learner's frames of reference and enables him/her to change mind sets or mental models to make them capable and accepting of change (Mezirow, 1990; Wang & Cranton, 2011).

Andragogy must take into consideration the learning engagement of the whole person. Teaching and learning are complex processes. They include more than cognitive approaches as the adult learner comes to class with a plethora of life-time experiences that can interfere with the learning process. Specifically, toxic stress that occurred in a person's childhood can affect brain functioning many years later. If a child's stress response systems are activated and stay activated for sustained periods of time, toxic stress can result, especially in the absence of a protecting shelter of a caring adult relationship (Blair & Raver, 2012; Evans & Kim, 2013). Research shows that extended exposure to stress and stress hormones affect a child's immune system, making him/her more vulnerable to both acute and chronic illness, which can have long term effects on the structure and functioning of the child's developing brain (Gunnar & Donzella, 2002).

Childhood poverty has been established as one source of toxic stress that has been proven to affect learning even after the child has grown into an adult (Fernald & Gunnar, 2009). Neuroscientist, Pat Levitt calls childhood trauma such as poverty a neurotoxin (2015): the circumstances that accompany poverty—what a National Scientific Council report summarized as “overcrowding, noise, substandard housing, separation from parent(s), exposure to violence, family turmoil,” and other forms of extreme stress—can be toxic to the developing brain, just like drug or alcohol abuse. These conditions provoke the body to release hormones such as cortisol, which is produced in the adrenal cortex. Brief bursts of cortisol can help a person manage difficult situations, but high stress over the long term can be disastrous (Blair & Raver, 2012; Malecek, 2006). Extended periods of high stress during childhood have been demonstrated to negatively affect a child's ability to learn with long term effects extending into adulthood (Yoshikawa, Aber & Beardslee, 2012).

Adopting transformational learning theory from a student-centered approach as a viable teaching tool for college and university professors will help close achievement gaps and empower the learner by making meaning from his or her life-long learning experiences (Wang & King, 2008) including the unpleasant experiences. Finding ways for meaningful learning to be sustainable through-out one's life span is critical for growth towards self-actualization. Instructors may need to change their ideologies about what teaching and learning should look like in order to liberate the learning process. Research discloses that childhood trauma such as poverty disrupts the learning process (Evans & Kim, 2013; Weinstock, 2008; Yoshikawa et al., 2012). Through self-examination, reflection, and critical assessment of assumptions (Mezirow, 1990), transformational learning can help adult students make new meanings from such childhood disorienting dilemmas (Retherford, 2001).

Achievement Gaps in Student Learning

In recent years, American educators and policy makers have been paying increased attention to the existence of achievement gaps as an outcome of adult non-completion in higher education (Community College Resource Center CCRC, 2008; National Educational Association, 2015). But they fail to connect achievement gaps to adult learning deficits as a result of childhood trauma such as poverty. The term “achievement gap” can be applied to a variety of learning outcome measures in higher education, including standardized test scores that do not meet the appropriate bench marks, low high school graduation rates, low college enrollments, low college graduation rates, and lack of job readiness (McKinsey

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