Teaching nontraditional adult students: adult learning theories in practice

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As the USA experiences rapid growth of nontraditional adult students in higher education, educators and institutions will increasingly need to look beyond the traditional youth-centric educational models to better address adult learning needs. To date, no research has been conducted examining the learning experiences of adult students enrolled in a disciplinary course that was built upon core principles of adult learning. Ten adult students (mean age = 45.4 years), enrolled in an American university with a college dedicated to adult students, were interviewed to assess their learning experiences and felt impact after completing a psychology course created upon adult learning principles. Findings revealed that students progressed through a five-themed model that challenged their pre-existing meaning structures, caused emotional and cognitive disequilibrium, and pushed them toward irrevocable change.

Keywords: adult learning; self-directed; transformative learning; nontraditional; psychology

Introduction

Recently published data from the National Center for Education Statistics (NCES), the primary federal entity for collecting and analyzing data related to education in the USA, revealed that the enrollment of students aged 25 and over in degree-granting postsecondary institutions is not only rising, but it is growing at a faster pace compared to the traditional 18- to 24-year-old (NCES   2009). From 2000 to 2009, the percentage of enrolled students under the age of 25 increased by 27% while the percentage of enrolled students aged 25 and over increased by 43% during the same time period. The NCES projects that for 2010–2019, there will be a 9% rise for students under the age of 25 compared to a 23% rise for students aged 25 and over. As of 2007, there were over 18 million enrolled students in degree-granting, postsecondary institutions of which just under seven million, or 38.2%, were aged 25 and over. Sixty-three percent of the nation's jobs will require some level of postsecondary education (Carnivale, Smith, and Strohl   2010). In the USA, the labor force includes 54 million adults without a college degree (Pusser et al.   2007). Obtaining a job increasingly demands postsecondary education.

In the face of the statistics and projections presented, understanding the learning needs of students aged 25 and over is imperative. These students, oftentimes classified as nontraditional, tend to see themselves as employees/workers first and students second

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(Wirt et al. 2002). Despite the fact that traditional, 18- to 24-year-old students may actually be in the minority, most higher education in the USA is often focused on the younger, adolescent students (Nelken 2009) and these institutions may not be prepared to most effectively meet the needs of nontraditional, adult students. The banking concept of education has dominated the educational landscape (Freire 1970) and the concept of college in current times can be arguably defined or perceived as an adolescent phase. Kasworm (2010) affirmed the notion that universities are youth-centric and derive their reputations from this population, resulting in uneven support for adult learners.

Adult students are not attracted to the aforementioned type of education model (Nelken 2009) and it may preclude them from participating especially if they have had prior negative experiences (Crossan et al. 2003) or if they feel like they do not belong (Reay 2002). Their learning needs may not match well with current university life because the academic structure is often focused on transmission-based pedagogy, or 'the science and art of teaching children' (Knowles 1980, 40). Consequently, their identities may often be shaped by institutional shortcomings related to adult learning needs (Kasworm 2010; O'Donnell and Tobbell 2007), reinforcing the feeling of academic alienation and social isolation from higher education. Recognizing that adult learners are developmentally distinct from traditional-aged students, the field of adult education has fully entrenched itself in defining learning models and processes that better fit within the context of an adult's life

Foundations of adult learning

Throughout much of the early to mid-twentieth century in North America, scholarship published in the Journal of Adult Education carried numerous articles by adult educators utilizing methods and approaches that were quite different from the traditional, pedagogical, top-down norms of the time (Knowles 1980). Without a unifying adult learning theory, these educators noted that traditional approaches were not well received by their adult learners and, in many cases, were ineffective in helping their adult students learn. In the 1950s and 1960s, more cohesive, explanatory, and unifying adult-centric models of education were developed, forming several tenets that are currently foundational to adult learning.

First, adult learners are self-directed and their learning is optimized when their experience is recognized and utilized in the learning process. Adult students are not 'blank slates' (Nelken 2009, 183) and their life experience becomes the medium through which content is learned and in which to redefine new goals to accomplish (Merriam 2001). The adult learner has an innate desire to learn, is an active agent in the planning and execution of her/his learning, and s/he values immediately relevant and problem-solving-based learning (Knowles 1980; Knowles, Holton, and Swanson 2005). Viewing the learner as self-directed shifts the focus away from the teacher as the gatekeeper to knowledge, and instead views the teacher as a facilitator and collaborator of knowledge who continuously guides the learner and helps co-create an environment for self-directed learning (Merriam 2001; Tough 1979).

Second, learning is transformative and leads to personal development. In Laurent Daloz's (1999) reflection on adult student mentorship, he writes:

408   J.C. Chen

> Over the years, I have come to believe that the line between learning and healing is finer than we might think … Within the obvious limits, perhaps a deeper understanding of the dynamics of healing would inform our knowledge of learning. (241)

Academics often serve as a trigger for prior pain, and will invariably include times of confusion, conflict, and discomfort, which can lead to transformative growth opportunities.

Transformations occur when default, long-standing beliefs are challenged. Defined and theorized by Mezirow (2009, 22), transformative learning 'transforms problematic frames of reference to make them more inclusive, discriminating, reflective, open, and emotionally able to change'. He described four levels of learning, with perspective transformation (i.e. emancipatory learning), which is an 'inclusive, differentiated, permeable, and integrated perspective' (Mezirow 1991, 155), being the focus of his theory. In order for this to occur, old assumptions, schemas, and perspectives must be challenged and examined to evaluate their accuracy, relevance, and fit. This usually occurs in the presence of a 'disorienting event ' (Mezirow 2009, 19), which

challenges and uncovers old meaning structures and latent thinking, thus rendering them incomplete and inadequate.

The third tenet of adult education, critical reflection, is defined as 'active, persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further conclusion to which it tends' (Dewey 1993, 9). Brookfield (1987, 1) stated, 'being a critical thinker is part of what it means to be a developing person'. It involves challenging assumptions, exploring alternatives, and developing reflective skepticism. What makes reflection critical is its focus on understanding and uncovering power dynamics. Brookfield drew from critical theory to help explain how its liberation-based emphasis helps to challenge educational hegemony. In fact, to some critical theorist, self-directed learning occurring through times of isolation from the dominant culture is necessary for social movements and reform by allowing for 'the development of different kinds of consciousness' (Brookfield 2003). This ability to 'ideology critique' (9) helps adult learners uncover possible biases or unjust assumptions that underlie political and social structures.

In briefly reviewing these three tenets of adult education, there is a common theme of separation and freedom from dominant, unevaluated, and irrelevant thinking. The common belief is that adult learners have in some way been trapped by a combination of social forces as well as limited personal insight. Through processes like self-directed learning, transformative experiences, and reflection, adult learners become more critically aware of individuals free of knowledge hegemony and able to develop a personally scrutinized perspective, which paves the way for civic and social action.

Adult learning and higher education

In the broader educational landscape, approaches to learning/conceptions of learning have been oft-discussed (Haggis 2003; Richardson 2000) and mirrors the development of adult learning principles. Perry's (1970) conceptions of knowledge provide one of the earliest models. His four-stage model of learning progression begins with a dualistic, concrete, right-versus-wrong view of knowledge and ends with a commitment to relativism, which is taking a personal stand regarding an issue while accepting relativism. Like Perry, Marton and Säljö's (1976) study on deep and surface approaches to learning resulted in a

developmental hierarchy of learning progressing from concrete learning to a more complex and personally transforming process. In terms of outcomes, surface approaches focused on memorization of texts (quantitative, memorizing, acquisition) were posited to lead to poorer learning outcomes whereas deep approaches focused on understanding the meaning of texts (abstraction, understanding reality, developing as a person) were posited to lead to good outcomes. Understanding meaning opens the door for learning to be transformative and life changing (Entwistle and Peterson 2004; Marton and Tsui 2004). More recently, Baxter-Magolda's (2004) self-authorship model identified four phases of student development. Defined as 'the internal capacity to define one's belief, identity, and social relations' (Evans et al. 2010, 184), the model begins with following formulas, which is following and accepting externally defined life plans, and ends with developing a firm, self-grounded, internal foundation.

Baxter-Magolda's (2004) model of student development shares a similar trajectory with Perry's (1970) and Marton and Säljö 's (1976) models of learning. All three models involve students beginning with a more concrete, simplistic, and unevaluated under-standing of knowledge with little personal significance, and progressing through to a more abstract, relative, and meaningful understanding of knowledge, which can be personally transforming. Inherent in all three models is a crucial point of development (i.e. Perry's pivotal shift, Marton and Säljö's threshold, Baxter-Magolda 's crossroads), where a transition occurs to internally focused, meaningful learning. In these models, disharmonious feelings results in confrontation with long-standing beliefs, resulting is an internally changed individual with a stronger more personal sense of self.

Adult learning principles share distinct similarities with the aforementioned perspect-ive in higher education. First, both value personal development. The goal of the various models moves beyond knowledge attainment to a process that sees the understanding of knowledge as a step toward an impetus for personal change; it is not an end point. Second, both identify a crucial moment where learners transition from an externally driven perspective to an internally motivated and personally meaningful one by realizing the inadequacy of prior perspectives. Old, untested assumptions are replaced by informed, examined perspectives (Halx 2010). Third, both accept a multidisciplinary view of the world. The emphasis on personal change or development at the end of these phases suggests that learners have challenged, examined, and critically reflected on the meaning behind knowledge. They are more confident and certain about the perspective they now hold, and they recognize the contextual and relative nature of knowledge within diverse life experiences.

There are also distinct differences. First, adult learning has a more radical edge with scholars like Brookfield (2003) and Freire (1970) suggesting that challenging institutional hegemony is an end goal. Personal development and transformations are necessary for social consciousness and action. Second, adult learning draws more upon the use of life experiences as a medium for learning, possibly because they have more to draw upon. Adult learning theories were not necessarily derived from purely academic settings, whereas Perry's (1970), Marton and Säljö's (1976), and Baxter-Magolda's (2004) models were derived from a more traditional, undergraduate student population. Third, adult learning more actively engages learners in self-directedness. The plethora of adult-based learning programs in the USA often involves individualized and customized programs that directly involve adult learners in the creation of their course of study (Hiemstra 1994), relating professional and/or personal goals and outcomes to them, unlike traditional undergraduate programs that, instead, offer pre-set, structured majors.

As the population of nontraditional adult learners continues to grow and outpace the growth of traditional students in the USA, educational institutions must purposefully address their learning needs while recognizing vast individual differences. Haggis (2002, 218) stated that 'learning is characterized by individual and unique processes of meaning-making that are created by, and situated within, specific social and cultural contexts'. While theories are important and provide a needed structure for understanding, she has advocated for a more critical approach to examining learning by moving away from 'universal truths' (Haggis 2002, 210) and from the 'elite' (Haggis 2003, 97) hegemony of assumptions that underlie these models.

Haggis' (2002, 2003) recommendation to focus on the uniqueness of learning experiences and to understand the 'black box' (Haggis 2002, 207) of teaching and learning in adult learning is merited and is used as a premise for this study. To the best of this author's knowledge, while there is scholarship on exercises and general insights related to adult learning (e.g. Mezirow, Taylor, and Associates 2009), there has been no published data evaluating the learning experiences of adult students within a specific disciplinary course that was designed with core principles of adult learning. Only one article was found that addressed adult learners within a specific course; however, this was an autoethnographic, nonresearch paper focused on the author's own reflections and analysis of teaching adults psychology courses instead of on the students' experience (Laher 2007).

Purpose

The present study involved using foundational tenets of adult learning models incorporated into an 11-week quarter-based, upper-level, psychology course for nontraditional adult students. The vast majority of studies examining teaching and learning are primarily focused on the traditional student and has recently focused on conceptions of learning/approaches to learning models (Haggis 2003) that, while similar in some ways to adult learning, does not fully encompass the developmental and learning needs of adult students. Additionally, studies conducted on adult learners generally occurred in either nonformal educational settings or within more general, liberal studies-based courses. The purpose of this study was to understand how adult students experienced and interacted with a psychology course specifically designed with adult learning principles. It aimed to ask the questions: 'How do adult learners respond to self-directed and transformative learning principles in teaching adult students psychological content?' and 'In what ways are self-directed and transformative learning principles effective in teaching adults psychological content?'

Course design

The course was designed as an applied course that focused on the personal change process to teach biopsychosocial principles of change in an interdisciplinary and experiential way. The quarter-based class met once a week for a three-hour class session in the evening for a total of 10 weeks. Instead of being driven by textbook learning, students were told at the beginning of the class to choose a benign, lifestyle-based topic that they would like to see personal change. Topics were approved by the instructor to minimize risk or distress. Students were clearly informed that they were not expected to engage in actual personal change. Rather, their topic areas were to be used as a medium

to understand psychological concepts. A personal, problem-solving approach (Knowles 1980) was taken instead of a textbook approach, though readings were assigned.

Assignments and activities were scaffold along two dimensions, level of personal engagement and content type, to offer customized learning experiences. In terms of the level of personal engagement, students were given the option to discuss or think about the course material and activities through the lens of their observations of their settings and of others, not necessarily regarding personal experience. Or, students could directly discuss the relevance of the material directly to their personal experience. In terms of content type, students were asked to discuss and think about the broad disciplinary material and the specific change area of choice.

This customized approach was posited to result in four outcomes (see Figure 1). The first column, observations of others, allows for a more traditional learning experience. Students will at the very least gain disciplinary knowledge. However, students who wish to examine personal relevance (second column, observations of self) can gain insight and even impetus for change. Because this customized approach affords students the option to engage the material at different levels, students are free to narrate their stories or not at all. Learning activities included discussion, simulation role-plays, current event debates, and small group application. Classroom time and homework involved journaling focused on the implications of their learning.

Method

Research design

Drawing on qualitative paradigms that focus on the understanding and meaning-making of experiences, interpretive phenomenological analysis (IPA; Smith 1996, 2004) was used to study the experiences of adult learners. IPA allows for rich meaning to be inductively derived from the data as well as offering tight controls for the integrity of the data analysis including idiographic (i.e. single-case analyses) and cross-case analyses for overall convergence and divergence of themes, and the identification of themes and subthemes. Questions used revolved around (1) evaluation of prior learning experiences,

(2) learning experiences related to the course, and (3) the overall impact of learning from the course. Although IPA does not necessitate quantifying the narratives, the themes described were represented in at least 80% of the cases. Divergent or alternative descriptions are also included to fully present the data and to avoid selective bias. Brackets are used to help provide context to quotations.

		Level of Personal Engagement		
		Observations of Others	Observations of Self	

Type of Content	Disciplinary (Psychology)	Traditional	Insight	
	Self-Selected Change Area	Application	Change/Transformation	

Figure 1. Scaffold approach.

Procedure

Approval was obtained from the university's institutional review board. At the beginning of the course, students were told that they would have a voluntary opportunity to engage in a semi-structured interview to discuss their learning experience related to the course. They were told that the interviews would occur two-to-three weeks after the end of the course after grading. At the close of the quarter, students were emailed to solicit participation. Interviews lasted 45 minutes to one hour, and were audiotaped. The audio files were

destroyed after verbatim transcription.

Participants

Students were purposefully sampled from the course, which was taught at a large, urban, Midwestern university in the USA with a college dedicated to degree completion programs for adult learners. Out of 30 enrolled students, 10 agreed to participate in the semi-structured interview. There were seven women and three men with an average age of 45.4 years (SD = 9.65, range 29–57). One student self-identified as biracial (Caucasian, Latino) and the rest identified as Caucasian. All had either junior or senior standing by credit hours, worked full or part-time, and had had prior postsecondary experience.

Findings

Five themes emerged that when synthesized, became five phases of a model of learning labeled here as a learning paradigm shift. Overall, findings confirmed the presence and utility of adult learning principles in the learning process of adult students. Importantly, specific insight was gained as to how these principles intersected to aid in adult student learning.

Despite given two options to engage in the scaffold approach, all participants chose to focus their learning on personal observations and experiences. They attributed this decision to the first theme, a personal reflective process, which initiated the learning paradigm shift. Participants noticed the consistent presence of opportunity to make meaning out of the material, which was absent in prior experiences with psychology courses. This opened the door for meaning-making, resulting in a comparable difference between the depth and intensity of their reflection in this current experience compared to prior ones. A 32-year-old father described the moment where reflection allowed for the material to become meaningful. At that point, his approach to the material changed giving way to inchoate paradigm shift:

> Dry. I think I only had one or two classes and one of them may have been like an intro class. It seemed very bland academically … But you kept reminding us that we could take it as far as we wanted so I thought, well, I have a three and a half year-old daughter … So I just figured why not think about her? And I think just that changed my approach completely, forever, just dealing with psychology. The way I view myself, my daughter. I used it to empower myself.

They attributed learning to their depth of reflecting, as described by a 43-year-old medical technology trainer:

> Those writing assignments, I don't enjoy writing, but reflecting on myself and how I'm learning was always interesting. They went from very difficult on 'how can I write four pages' to 'I can't stop at ten.' You get to the issues. You work it out on paper. I've never taken it that far.

Appreciation for reflective thinking while in the midst of the course was mixed but all noted its power after the experience. This first theme confirms the significance of critical reflection in adult learning. Because reflective practice allowed for the material to have deeper meaning, it led to the second theme, emotional conflict. Participants all described several points of conflicting emotions where they grappled with the personal impact of the material. For six participants, reflection brought up specific childhood or early memories that were emotionally laden and challenged their understanding of it. However, they each shared that they did not run away from them. They acknowledged and accepted the conflict, which is different from past experiences:

> I had an intensely negative reaction to that interaction and I was able to understand why. I was just in the right place at the right time and remembered things from my childhood that had nothing to do with that person but how they were engaging. It triggered something. I had to wrestle inside myself and anger at the person who really kind of opened it up to begin with.

Strong emotions meant that reflection had opened up another alternative to their current way of thinking; it destabilized a prior mindset, akin to Mezirow's (1991, 2009) disorienting event, which triggers a chain reaction of evaluation. This resulted, if not demanded, the third theme, self-assessment.

To participants, self-assessment was humbling but necessary, and that it was never a part of their previous experiences with psychology courses. This self-assessment echoed the pivotal shift, crossroads, and threshold phases found within Perry's (1970), Marton and Säljö's (1976), and Baxter-Magolda's (2004) models, and the assessment and examination phases in Mezirow's (2009) model. Participants ' active process of evaluating themselves with new understanding of knowledge against old paradigms revealed that there were now at least two competing views of their reality. Ignoring this fact was impossible:

> I had to be honest with myself and, so I think, critically being honest with myself in class was very important. I think I'm more realistic about the change process. Yea, it's hard, it's gonna hurt, it's probably gonna take a long time, I'm gonna make mistakes. And if truly I want to grow up and be a big girl then I'm going to have to do the work.

Confirmatory evidence for discrepant thoughts and feelings moved the learning paradigm shift from blind acceptance of the present to a desire for change. With this attitude change was also a sense of personal responsibility. They seemed to appreciate that they could be active agents in their lives moving forward. There were 'other ' ways of thinking that became more appealing as they discovered the consequences of inaction or passivity.

Overall, the first three themes, personal reflective process, experiencing conflict, and engaging in self-assessment share

similarities, though not chronologically, with the initial phases of Mezirow's (1991, 2009) model. His first phase is the disorienting event (i.e. the trigger), which involves situations or observations that do not fit with an individual's pre-existing meaning structure, followed by a period of self-examination and critical

414   J.C. Chen

assessment of underlying beliefs that yields emotional discontentment. In these present findings, reflection is the trigger, which leads to the determination that the learning material is disorienting. A possible explanation for this inverse order is examining the focus of Mezirow's (1991) original study, which created his model. Focused on the experiences of women returning to college, interviews were not on actual academic learning. By nature, returning to school is likely disorienting, or at the very least, an adjustment, which makes Mezirow's study an examination of a disorienting event that relates to academics but is not about it. In this present study, the focus was not on, at least initially, a disorienting event, as evidenced by participants' ambivalent descriptions of prior psychology courses. Therefore, by setting up a formal course experience built around reflection, students may not have initially experienced disorientation, but the process of critically reflecting on the material may have caused some level of it.

Continuing with the learning paradigm shift, the first three themes resulted in a conclusion that they had crossed a learning Rubicon, the fourth theme. The evidence gained by using their life experience as the main learning medium

contributed to a fundamental shift that their present life situation was unacceptable and that they had to take action:

> I falsely believed I was doing better. Once you know something, you can't un-know it, you know? Knowing it and saying 'to hell with it' is just not an option.

These four themes appear to provide a look at how self-directedness develops. The literature on self-directed learning has recently been more silent due to some short-comings related to its theoretical basis as well as its process (Merriam 2001). It has focused predominantly on learner attributes that relate to it and instructional methods to facilitate it; however, these findings describe it as a process that includes internal cognitive and emotional components that, when combined, propels an individual toward a personal responsibility orientation (Brockett and Hiemstra 1991). This orientation assumes ownership over thoughts and feelings. After a period of evaluation, participants could not ignore the personal implications of their learning and had to address it.

Another more nuanced finding regarding self-directedness is the removal of learning barriers to increase ownership. Along with other participants, a 47-year-old student described prior struggles with content learning and had previously blamed herself for not being able to understand the material. Her insight below is aligned with Daloz's (1999) notion of learning as healing:

> I thought there was something wrong with me. I gave myself permission that that was okay not thinking it was something necessarily wrong with me [negative belief about self from previous learning experiences].

Removing the long-standing, self-blaming belief allowed the student to experience learning in a different way and to exhibit learning ownership. She was no longer victim to knowledge hegemony and this freedom allowed her to engage in personal meaning-making.

The fifth theme to develop was engaging in behavior change. Some described specific changes related to the area they chose for the purpose of this course. Others spoke of changes beyond their chosen change area. All students shared specific instances of change and movement from a place of prior stagnation to a place of engagement:

> Personally, I've lost 25 pounds … I've been riding my bike and going biking for a couple of weeks.

Broader changes included:

> I feel less dogmatic and more critical. I see more options and think outside of my mental box … I thought I was advanced, somewhat, at least for my age in theological understanding … It forces me to acknowledge that there is more than one legitimate way of looking at the world.

Three participants specifically engaging in a healing process, such as:

> I just feel almost like I have accepted my past, my past failings, what I've done or what I didn't do and instead of blaming myself, I'm almost looking at it like, 'okay, there's reason maybe these things have happened but let's just look at them and go forward.'

Imbedded in the above examples of behavioral change is an acceptance of themselves and their history. While Mezirow did not put a timeframe on transformational learning, the majority of participants began to show signs of transformation by the course's end suggesting that formal educational settings can indeed foster this process.

Conclusion

The themes resulted in a learning paradigm shift represented in Figure 2. By providing students the opportunity to make learning meaningful through reflection and topic choice, a learning medium surfaced for self-directedness to grow. It appears that the scaffold approach helped students to have a broader view of learning possibilities, perhaps challenging imbedded notions of learning hegemony, and freeing them to approach their learning in a different more meaningful way. Students made disciplinary content as personal as possible and, in the process, found it impossible not to be transformed by it. They engaged in emotional and cognitive processes captured in the learning paradigm that challenged a pre-existing reality and accepted diverse perspectives on themselves. Each theme within the learning paradigm shift moved participants to bridge the gap between current functioning and future possibilities, building the momentum for

Reflection	Self-Assessment	Behavior Change	

Emotional	Learning
Conflict	Rubicon

Self-
Directedness

Figure 2. The learning paradigm shift – themes and relationship to self-directedness.

self-directedness until arriving at a learning Rubicon, and finally crossing over to change. Students tested old assumptions and beliefs and developed newer, more meaningful, sometimes healing ones.

The learning Rubicon is significant to adult learners. Because of having more life experiences compared to traditional

students, this phase represented a significant shift in understanding the impact of learning; it became more about personhood and less about academic knowledge. The new, more evaluated reality demanded action, and owning it helped sooth the emotional conflict they experienced.

Higher education continues to experience a steady rise in participation from nontraditional adult learners, and educators will need models that best fit with them. Implications from this study reveal three important factors. First, disciplinary courses utilizing adult learning principles can be effective at teaching adults. The presence of self-directedness, reflection, and transformative learning principles was confirmed. Second, emotions are a significant part of self-directedness. It pushes students to seriously consider change by taking ownership. Third, facilitating self-directedness may require the removal of oppressive barriers that foster knowledge hegemony. It frees students to experience a broader range of conflicting emotions, part of which introduces the idea that learning can be personally meaningful.

Limitations

With any given qualitative study focused on a specific population, generalization is cautioned. Despite the fact that these students are clearly 'nontraditional', the characteristics included in this definition can be quite diverse. For example, these are all participants who are generally ethnically homogenous, employed at some level, and who live in a large metropolitan area in the USA. Data gathered from a more diverse sample of students can possibly provide other perspectives and themes. Importantly, participants represented a significant age range, which likely also represented different developmental maturity and needs. Further studies should more specifically examine different groups within this large population.

Given the methodology chosen for this study, no comparison group was used. Do traditional students in more traditional settings experience the same amount of learning as self-reported by participants in this study? Although participants in this study reported feeling like they learned more from this course design compared to previous experiences of traditional learning, without comparing to traditional students, there is not a definitive answer. Whereas this study provided in-depth narratives to participants' experiences, no objective assessments were given to provide evidence for the magnitude of learning and change that were reported to have occurred.

Lastly, no follow-up was done after these interviews to examine long-term impact of learning. While participants all described some transformation and actual change, did these changes last? Follow-up interviews would have provided stronger evidence that participants' learning in this course went beyond its duration.

References

Baxter-Magolda, M. B. 2004. Making Their Own Way. Sterling, VA: Stylus.
Brockett, R. G., and R. Hiemstra. 1991. Self-direction in Learning: Perspectives in Theory, Research, and Practice. London: Routledge.
Brookfield, S. D. 1987. Developing Critical Thinkers. San Francisco, CA: Jossey-Bass.

Brookfield, S. D. 2003. "A Critical Theory Perspective on Accelerated Learning." New Directions for Adult and Continuing Education 2003 (97): 73–82. doi: 10.1002/ace.90.

Carnivale, A. P., N. Smith, and J. Strohl. 2010. Help Wanted: Projections of Jobs and Education Requirements through 2018. Washington, DC: Georgetown University's Center on Education and the Workforce. http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/HelpWanted.FullReport.pdf.

Crossan, B., J. Field, J. Gallacher, and B. Merrill. 2003. "Understanding Participation in Learning for Non-traditional Adult Learners: Learning Careers and the Construction of Learning Identities." British Journal of Sociology of Education 24 (1): 55–67. doi: 10.1080/01425690301907.

Daloz, L. 1999. Mentor: Guiding the Journey of Adult Learners. San Francisco, CA: Jossey-Bass. Dewey, J. 1993. How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process. Boston, MA: D. C. Heath.

Entwistle, N., and E. R. Peterson. 2004. "Learning Styles and Approaches to Studying." In Encyclopedia of Applied Psychology, edited by C. Spielberger, 537–542. New York: Academic Press.

Evans, N. J., D. S. Forney, F. M. Guido, L. D. Patton, and K. A. Renn. 2010. Student Development in College: Theory, Research, and Practice. 2nd ed. San Francisco, CA: Jossey-Bass.

Freire, P. 1970. Pedagogy of the Oppressed. New York: Continuum.

Haggis, T. 2002. "Exploring the 'Black Box' of Process: A Comparison of Theoretical Notions of the 'Adult Learner' with Accounts of Postgraduate Learning Experience." Studies in Higher Education 27 (2): 207–220. doi: 10.1080/03075070220119986.

Haggis, T. 2003. "Constructing Images of Ourselves? A Critical Investigation into 'Approaches to Learning' Research in Higher Education." British Educational Research Journal 29 (1): 89–104. doi: 10.1080/0141192032000057401.

Halx, M. D. 2010. "Re-conceptualizing College and University Teaching through the Lens of Adult Education: Regarding Undergraduates as Adults." Teaching in Higher Education 15 (5): 519– 530. doi: 10.1080/13562517.2010.491909.

Hiemstra, R. 1994. "Self-directed Learning." In The International Encyclopedia of Education. 2nd ed., edited by T. Husen and T. N. Postlethwaite, 5394–5399. Oxford: Pergamon Press.

Kasworm, C. E. 2010. "Adult Learners in a Research University: Negotiating Undergraduate Student Identity." Adult Education Quarterly 60 (2): 143–160. doi: 10.1177/0741713609336110.

Knowles, M. S. 1980. The Modern Practice of Adult Education: From Pedagogy to Andragogy. Chicago: Follett.

Knowles, M. S., E. F. Holton, and R. A. Swanson. 2005. The Adult Learner. 6th ed. Burlington, MA: Elsevier Butterworth-Heinemann.

Laher, S. 2007. "Reflections on Teaching Undergraduate Psychology to Part-time Adult Students." South African Journal of Psychology 37 (2): 383–388. doi: 10.1177/008124630703700215.

Marton, F., and R. Säljö. 1976. "On Qualitative Differences in Learning: Outcome and Process." British Journal of Educational Psychology 46 (1): 4–11. doi: 10.1111/j.2044-8279.1976.tb02980.x.

Marton, F., and A. B. M. Tsui. 2004. Classroom Discourse and the Space of Learning. Mahwah, NJ: Lawrence Erlbaum.

Merriam, S. B. 2001. "Andragogy and Self-directed Learning: Pillars of Adult Learning Theory." New Directions for Adult and Continuing Education 2001 (89): 3–13. doi: 10.1002/ace.3. Mezirow, J. 1991. Transformative Dimensions of Adult Learning. San Francisco, CA: Jossey-Bass. Mezirow, J. 2009. "Transformative Learning Theory." In Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education, edited by J. Mezirow, E. Taylor, and Associates, 18–32. San Francisco, CA: Wiley.

Mezirow, J., E. W. Taylor, and Associates, eds. 2009. Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education. San Francisco, CA: Wiley.

National Center for Education Statistics. 2009. Projections of Educational Statistics to 2018. Table 11. Actual and Middle Alternative Projected Numbers for Total Enrollment in All Degree-granting Postsecondary Institutions, by Sex, Age, and Attendance Status: Fall 1993 through Fall 2018. Accessed June 6, 2012. http://nces.ed.gov/programs/projections/projections2018/tables/ table_11.asp?referrer = list.

Nelken, M. L. 2009. "Negotiating Classroom Process: Lessons from Adult Learning." Negotiation Journal 25 (2): 181–194. doi: 10.1111/j.1571-9979.2009.00219.x.

418   J.C. Chen

O'Donnell, V. L., and J. Tobbell. 2007. "The Transition of Adult Students to Higher Education: Legitimate Peripheral Participation in a Community of Practice?" Adult Education Quarterly 57: 312–328. doi: 10.1177/0741713607302686.

Perry, W. G., Jr. 1970. Forms of Intellectual and Ethical Development in the College Years: A Scheme. New York: Holt, Rinehart & Winston.

Pusser, B., D. W. Breneman, B. M. Gansneder, K. J. Kohl, J. S. Levin, J. H. Milan, and S. E. Turner. 2007. Returning to Learning: Adults' Success in College is Key to America's Future. Indianapolis, IN: Lumina Foundation. http://www.luminafoundation.org/publications/Returntolearning April2007.pdf.

Reay, D. 2002. "Class, Authenticity and the Transition to Higher Education for Mature Students." The Sociological Review 50 (3): 398–418. doi: 10.1111/1467-954X.00389.

Richardson, J. 2000. Researching Student Learning. Buckingham: University Press.

Smith, J. A. 1996. "Beyond the Divide between Cognition and Disclosure: Using Interpretative Phenomenological Analysis in Health Psychology." Psychology and Health 11 (2): 261–271. doi: 10.1080/08870449608400256.

Smith, J. A. 2004. "Reflecting on the Development of Interpretative Phenomenological Analysis and Its Contribution to Qualitative Research in Psychology." Qualitative Research in Psychology 1: 39–54.

Tough, A. 1979. The Adult's Learning Projects. Toronto: Ontario Institute for Students in Education.

Wirt, J., S. Choy, D. Gerald, S. Provasnik, P. Rooney, S. Watanabe, and R. Tobin. 2002. The Condition of Education 2002. Washington, DC. http://nces.ed.gov/pubs2002/2002025.pdf.