

Factors Affecting Adult Learning And Their Persistence: A Theoretical Approach.

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ABSTRACT

This article reviews the literature on the concept of adult learning and systems theories and provides factors influencing their persistence in schooling. The review discusses adult learning experiences and factors influencing their persistence. It is argued that though adults are self directed and basing their learning on experiences, they need institutional and environmental support to persist to graduation.

Keywords: Adult Learning, Systems, Persistence

Introduction

Adults learn by connecting experience with reflection (Gillen 2005, p.208). Learning in adulthood is different than learning in childhood (Knowles, 1984). To understand adult undergraduates, one must fully understand how adults learn. This is well known by educators specializing in adult education (Merriam & Caffarella, 1999).

This review of adult learning theory provides the foundation to explore what role institutional policies, services and the classroom environment have in persistence. How well institutions design curricula and services that are consistent with adult learning may well have an affect on whether an adult undergraduate persists to graduation. “Understanding learning in adulthood is like piecing together a puzzle; there are many parts that must be fitted together before the total picture emerges” (Merriam & Caffarella, 1999, p. 193). The individual learner, the context in which the learning takes place, and the learning process are all parts of this puzzle. “Indeed, adult learning is the ‘glue’ holding together a field [adult education] that is diverse in content, clientele, and delivery systems” (Merriam, 1993, p. 5).

Much of the early work in adult learning focused on intelligence, and whether intelligence declined with age (Merriam, 1993). Studies regarding adult intelligence in the early part of the century were a function of both flawed methodology and flawed conclusions about the loss of intelligence later in life (Merriam, 1993). Typically, such studies were conducted in an artificial setting, and timed educational tests were used to compare young learners with older learners. We know now that intelligence is not reduced through the aging process. In fact, a significant finding in the brain research of the 1990s indicates that the more the brain is used, the less likely cognitive function will be lost (Ratey, 2001). And, supplementing the “use it or lose it” concept, intelligence can actually increase with increased intellectual exercise.

The physical and psycho-social conditions of adults certainly impact how adults learn (Merriam & Caffarella, 1999). Some biological changes, such as loss of hearing and sight or disease, can seriously affect the learning process. From a psycho-social perspective, life stages or events can have an impact not only on whether or not adults choose to participate, but on how they participate, in learning. Erikson’s stages of development were influential in the development of adult learning theory (Erikson, 1963; Tweedell, 2000).

Adult learning theory and origin

Adult learning theory can trace its philosophical roots back to the experiential learning philosophy of John Dewey (Tweedell, 2000). Dewey’s (1948) philosophy of newer education stressed the importance of experience in the learning process, the participation of the learner in the learning process, and the importance of perceiving learning as a

lifelong process. “There is... no point in the philosophy of education which is sounder than its emphasis upon the importance of the participation of the learner in the formation of the purposes which direct his activities in the learning process” (Dewey, 1948, p. 77). The idea that education was related to the whole of life’s experiences, and that the educational experience required active participation of the learner, was quite radical for the time (Dewey, 1948; Tweedell, 2000). While the adult learning community has utilized these concepts as theoretical underpinnings of its pedagogy, it’s interesting, reading his work, to note resurgence in these educational concepts in education in the recent movement toward learner-centred teaching (Weimer, 2002).

The concepts of self directed learning, andragogy, and perspective transformation, have been critical to the development of adult learning theory (Merriam, 1993). Two educational theorists were products of Dewey’s laboratory school for the Department of Education: Cyril Houle and Malcolm Knowles, and the ideas of both have framed the discussion around adult educational theory (Tweedell, 2000). Houle’s research, which was a qualitative study of individuals participating in various types of learning, resulted in a typology of the adult learner. Houle identified three subgroups of learners: adults who are goal oriented, adults who are activity oriented, and adults who are learning oriented (Houle, 1961). Goal oriented learners are out to accomplish some identifiable objective, such as a degree or certification. Activity oriented learners are those who participate in learning for another reason unrelated to knowledge acquisition: to socialize, to find a spouse, to escape an unpleasant home life. Learning oriented learners are those who seek knowledge for its own sake. Houle’s research was significant to the development of the concept of self directed learning, a concept that has helped define learning in adulthood (Houle, 1961; Merriam, 1993; Tweedell, 2000). It was also significant to the development of the idea that all persons had a desire to learn, a rather radical thought for its time (Griffith, 1987).

Heavily influenced by Houle, Knowles’ (1968) concept of andragogy versus pedagogy, *ie.* adult learning versus child learning, is widely accepted as a seminal work in the field. Knowles was first introduced to the concept of andragogy by Yugoslavian adult educator, Dusan Savicevic. The concept of andragogy had been evolving in Europe for some time, and was further refined by Knowles (1984). Andragogy, the art and science of teaching adults, is contrasted with pedagogy, the art and science of teaching children (Knowles, 1984). In the former, the learning experience is driven by the learner; in the latter, the learning experience is driven by the teacher. Andragogy is based upon five assumptions of adult learning: maturity moves one to more self direction, experience is a rich resource for learning, learning readiness is closely related to the developmental tasks of the adult’s social role, adults are more problem centred than subject centred in their learning, and adults are motivated by internal rather than external factors (Knowles, 1968; Merriam & Caffarella, 1999; Gillen 2005).

The assumptions posited by Knowles have been the subject of much debate, a frequent criticism being that Knowles was more descriptive than analytical in presenting his ideas and that andragogy is perhaps “his own ideological exposition” (Jarvis, 1987, p. 184). In spite of widespread acceptance for the assumptions of andragogy, there has been little empirical research to test the validity of the assumptions, or to predict adult learning (Merriam & Caffarella, 1999; Merriam, 1993). Although first published as a learning theory (1968), Knowles later acknowledged the andragogical model was based on a set of assumptions, rather than on a theory (Knowles, 1984). Knowles also later recognized that “pedagogy-andragogy represents a continuum ranging from teacher-directed to student directed learning, and that both approaches are appropriate with children and adults, depending on the situation” (Merriam, 1993, p. 8). While Knowles’ concept of andragogy was perhaps not a comprehensive theory, “he has provided a foundation upon which theory might eventually be erected” (Jarvis, 1987, p. 185).

The concept of perspective transformation is informed largely by the field of cognitive psychology. Two major themes in cognitive development are particularly informative: dialectical thinking and contextual thinking. Dialectical thinking “allows for the acceptance of alternative truths or ways of thinking about the many contradictions and paradoxes that we face in everyday life” (Merriam & Caffarella, 1999, p. 167). Adult students also think within the contextual frames of social, cultural, political, and economic forces. Mezirow’s (1990) theory of perspective transformation was significant in informing adult cognitive process. Attaching critical reflection and an awareness of why we attach meaning to reality is a hallmark of adult learning. “Uncritically assimilated meaning perspectives, which determine what, how, and why we learn, may be transformed through critical reflection. *Reflection on one’s own premises can lead to transformational learning* [italics original] (Mezirow, 1990, p. 18). Transformational learning means reassessing one’s perspectives or correcting distorted assumptions.

Three perspectives widening the lens through which we define adult education include sociology, critical theory, and the feminist perspective (Merriam, 1993; Tweedle, 2000). The psychological perspective has been predominant in the past. More recently, however, we are beginning to develop a more holistic perspective of adults within the context of their culture and society. Significant information from this perspective reveals who has access to what learning opportunities (Merriam, 1993; Merriam & Cafferella, 1999). We know that higher education, for example, is still predominantly white and middle class (Merriam & Cafferella, 1999). The feminist perspective, with particular attention to societal power structure, has also been directly relevant to issues of oppression and disenfranchisement. A major thrust of critical theory has been to take

adult learning to a macro perspective with the goal for social change and to “uncover oppressive forces that hinder individuals from developing their full potential” (Merriam, 1993, p. 11). Thus transformational learning, as discussed above, eventually leads to emancipatory learning, which leads to social action (Merriam & Caffarella, 1999). All three are systematically intertwined. As discussed above, we know that cognitive functioning does not necessarily decrease with age. We do know, however, from the work of cognitive scientists, that there are apparent losses in both short and long term memory as we age (Merriam & Caffarella, 1999). We also know that older adults take a longer time to process complex information. These cognitive challenges need to be considered for the adult learner. Learning style inventories, such as Kolb’s Learning Style Inventory, have proven effective in assisting the adult learner. Learning results from stimulation of the senses (Lieb, 1991). When adult students are informed about their learning styles, they are better prepared to negotiate through the learning process. “Despite the lack of uniform agreement about which elements constitute a learning style, it seems apparent that learning style inventories, unlike most cognitive style instruments, have proved useful in helping both learners and instructors alike become aware of their personal learning styles and their strengths and weaknesses as learners and teachers” (Merriam & Caffarella, 1999, p. 210).

Learning from experience is certainly something the adult learner brings to the table. Adults, as indicated in the above narrative, tend to connect what they are learning to previous experiences and possible future situations (Merriam & Caffarella, 1999).

Adult learners are also very pragmatic: they want to see that what they are learning has application to something practical. Two ways adult educators have brought the experiential world of adults into the learning process is through cognitive apprenticeships and anchored practice, and the primary goal of each is to develop specific skills and competencies in a particular field.. The more students practice the skill, the more proficient they become. While the desire and the ability to learn are not shared equally by everyone, both can be fostered by good teaching, by careful guidance, by building and enlarging sympathetic enclaves, and by providing a range of educational opportunities. These tasks are too great for partial and divided efforts. The inquiring minds of the past have produced most of the advances of civilization. Our hopes for the future must rest in large measure on our capacity to increase the number and the ability of those who continue all their lives to share in the benefits and the pleasures of intellectual inquiry. (p. 82)

Systems Perspective

The environments in which adult learners live and work as well as the people in their lives have an impact on their persistence. Understanding systems theory will provide

a foundation for understanding what role faculty and family support have in the persistence of adult undergraduates.

Systems theory and origin

Systems theory is actually a term originated in and borrowed from the biological sciences, specifically from ecology (DuBois & Miley, 2002; Schlossberg, Lynch & Chickering, 1989). Ecology deals with the interaction of an organism and its environment. Although there is significant evidence that behaviour is pre-determined through genetics, there is also evidence to suggest that when the environment is altered, so will the behaviour alter (Schlossberg, et al., 1989). In one environment, an organism may flourish; in another, it may perish. The same is true of the non-traditional student on a college campus. The essence of the ecological perspective is that both the individual and the environment are seen as important. To understand the persistence of the adult learner, one must understand the interaction of the learner with his or her environment, including family, community, work, and the learning institution (Astin, 1993; Bean & Metzner, 1985; Brown, 2002; Hagedorn, 1999; Harrington, 1993; Kasworm, 1999, 2002, 2003; Sandler, 2000). Schlossberg, et al. (1989) suggest we need to “see our institutions as environments that have the potential for facilitating or hindering adult learning” (p. 2).

Systems theory states that the whole is greater than the sum of its parts, exists through the interaction of its parts, and that when one part of the system is changed, the system will react to that change (Andrae, 1996; DuBois & Miley, 2002; O’Connor & McDermott, 1997; Senge, 1990). The profession of social work is built upon systems theory (Andrae, 1996; DuBoise & Miley, 2002). For adult learners to persist in their studies all parts of the whole must function and interact.

Models of Student Attrition and Persistence

Several theoretical models for student attrition and persistence have been developed over the years. The first theoretical model was developed in 1971 by Spady. He found that dropout decisions are a result of a longitudinal process, that background characteristics such as family background, academic potential, and socioeconomic status, are important. He also found that friendship and congruence with the institution were important factors in a student’s decision to stay. The most important factor Spady found in preventing attrition was a heightened degree of social integration.

The second model, built on Spady, was Tinto’s (1975) Student Integration Model, which borrows heavily on tribal society’s rite of passage and the social theory of suicide. Tinto’s model is perhaps the most empirically tested model, and has become accepted as the most useful for explaining the causes of student departure from higher education (Cabrera, Nora & Castaneda, 1994). Tinto (1975) found that, similar to those passing through the rites of passage in tribal societies, students needed to successfully complete three phases:

separation from home and parents, transition to living on their own, and incorporation into college life. When students are unable to do this, they commit social suicide by dropping out. Social and academic integration into the college environment are necessary conditions for persistence. Tinto (1993) found six variables crucial to persistence: academic integration, social integration, goal commitment, institutional commitment, intent to persist, and academic achievement.

A third model, created by Bean and Metzner (1985), relied extensively on past research and review of the literature, and they developed the first model of student attrition for the non-traditional student. The researchers theorized the need for a new non-traditional student model, as the other models relied heavily on social and institutional integration. “One defining characteristic of the non-traditional student was the lack of social integration into the institution; therefore, a different theory must be used to link the variables in this model” (Bean & Metzner, 1985, p. 489). They perceived student attrition as analogous to workplace turnover, and they stressed the importance of behavioural intentions and intent to stay, as significant predictors of persistence. Bean and Metzner developed a path model and found that attrition decisions were based on four sets of variables: poor academic performance, intent to leave, background (educational goals and high school performance), and environmental variables.

In a fourth model, Cabrera, Nora, and Castaneda (1993) merged Tinto’s student integration model and Bean’s student attrition model into an integrated model of student retention. Combining these two earlier theories led to a better understanding of student attrition for both traditional and non-traditional college students. Cabrera, Nora, and Castaneda suggested that the effect of environmental factors was far more complex than first conceptualized by Tinto. Intent to persist and encouragement of friends and family had the largest total effect on persistence in their research. Environmental factors exerted significant influence in the socialization and academic experiences of the students, and their research suggested that environmental factors should always be considered in conceptual frameworks about student persistence.

Sandler’s (2000) research and subsequent path model is perhaps the most significant piece of research on non-traditional students since Bean and Metzner’s 1985 study.

Lastly, Donaldson & Graham (1999) offered a Model of College Outcomes for Adult Students, drawn widely from the research regarding adult learning and persistence studies. “The model attempts to take into consideration the complex nature of adults’ lives and explain the key components affecting their undergraduate experiences” (p. 25). They suggested utilizing this model as a guide for discussion and further research on adult learners. The model considers the diverse nature of non-traditional students and the impact of environmental factors outside the college environment. Although presented in a linear format, the authors stressed a great deal of interaction among the various

components, consistent with systems theory. This study uses their model as its conceptual framework.

The model encompasses six components: (a) prior experience and personal biographies, (b) adults' cognition, psycho-social and value orientation, (c) life-world environment inclusive of reinforcing agents and social settings, (d) connecting classroom, and (e) outcomes (Donaldson & Graham, 1999). The variation in the experiences for adult students is reflected in the multiple components of this model, composed of several different variables based on prior research.

The prior experience component highlights the adult learners' rich personal experiences and biographies. It influences self efficacy, motivation, and responsibility, and it impacts the adult students' approach to their educational experience. It also establishes the stage by which they will make meaning of their collegiate experience.

The psycho-social and value orientation component takes into consideration the internal psychological characteristics and values the students bring to the educational experience: How they feel about their roles as students and the value they place on their education are two factors in this domain. Chartrand (1990), for example, found that a positive evaluation of oneself and a commitment to the role of student were positively related to each other. Issues such as fear of being too old and a lack of confidence in their academic abilities will impact this domain. There is evidence that adult undergraduates are very concerned with the quality of their education, have a greater desire to learn, and value the educational aspects of their collegiate experience much more than do traditionally aged students (Chartrand, 1990; Dill & Henley, 1998; Donaldson & Graham, 1999; Graham, 1998).

The concept of the connecting classroom suggests that adult students use the classroom as the fulcrum of the college experience and that classroom related learning and relationships with faculty are of significant importance for the adult learners. There is much evidence that adult learners value the development of community within the classroom (Kasworm, 2002, 2003; Donaldson & Graham, 1999). "Because adults generally spend less time on campus, they may be forced to find ways to use the classroom as the focal point for their learning experiences" (Donaldson & Graham, 1999, p. 30).

The complex cognitive schema of adult learners allows them to connect new information with previous experiences and to the real world, resulting in practical application to theoretical learning (Justice & Dornan, 2001; Merriam & Cafferella, 1999). This describes the adult cognition component of the model. (Donaldson & Graham, 1999). "Once in college, they struggle to connect their present and emerging life-world knowledge structures to their academic knowledge structures. The extent to which they are able to make these connections influences the value of their college experiences" (p. 33).

Life-world knowledge structures are out-of-class settings in which adults participate and interact with others, such as family, job, and community (Kasworm, 2002, 2003; Donaldson & Graham, 1999). A big factor in the life-world environment is the influence of “reinforcing agents” that either support or impede the adult undergraduate’s return to college. These reinforcing agents might be family, friends, co-workers, and community members.

Unlike the more traditional definition of college outcomes, this model “suggests that adults may really be seeking, and in many cases achieving, different levels of outcomes [compared with those sought by traditionally aged students] related to their college experiences and learning” (Donaldson & Graham, 1999, p.34). Some of the research suggests that adult undergraduates have a broader perspective about the value of their education than simply studying to achieve a grade (Donaldson & Graham, 1999; Kasworm, 1995, 1997; Samuels 2004). This model suggests measuring outcomes by multiple factors, and not just by what the learners experience on campus or by the traditional outcomes of grades and graduation (Donaldson & Graham, 1999).

Factors affecting persistence in institutions

Enrolling in college does not necessarily mean staying in college. In addition to studying the student models, several researchers have studied variables important for student persistence. The factors that influence traditionally aged students to persist to graduation are quite different from the factors that influence the adult undergraduate. This section will overview the persistence factors found generally in traditional students, then it will move to discussing the factors that seem essential for the adult population.

Several research studies on the persistence of traditionally aged students to graduation indicate that social integration on the college campus is a significant variable for persisters. (Alhassan, 2003; Astin, 1993; Pascarella, 1980; Spady, 1970; Tinto, 1993; Astin,). In Tinto’s (1975) seminal work on student attrition, social integration was found to be a critical variable in student persistence. Pascarella (1982) emphasized the importance of informal student-faculty interaction in the persistence of students. Students’ interaction with each other, formal and informal contact with teachers and other members of staff on campus heavily influences educational outcomes and persistence (Alhassan 2003).

The factors that influence adult undergraduates to persist in their schooling are diverse and complex (Kasworm, 2002), and very different from the factors that influence traditional-age students. “Adult students find that their goals and motives for college attendance are tested, supported, and sometimes diminished by both the collegiate world and their other worlds” (p. 29). Kasworm delineates five areas of self and society that influence the adults’ navigation through their collegiate experience: work responsibilities,

family and significant other responsibilities, financial responsibilities, community responsibilities, student role responsibilities, and responsibilities to self. Often, the role of the student significantly conflicts with the adult undergraduates' other responsibilities.

It is in the area of social integration on campus that adult learners look most different from their younger colleagues. As adult students attempt to juggle the other four responsibilities, the ability to spend time on campus is at a premium. Contrary to the results of the research on traditional students, Kasworm (2003) found that adult undergraduates were focused on the classroom, as opposed to peer group or campus involvement, as the main stage for their collegiate experience. These students typically do not have time to socialize on campus, and socialization is less important to the older student (Kasworm & Pike, 1994). They have several external factors competing for their time and energy: jobs, family, and on-going commitments to their external community.

The role of student is only one of many roles they play. Bean and Metzner (1985) theorized that since other models of student attrition focused heavily on socialization and involvement factors, a new model for student attrition was required for non-traditional students that did not emphasize this variable. Donaldson and Graham (1999) suggested that non-traditional students engage in the classroom in a unique and different way that accommodates for their lack of time on campus and substitutes for the social integration found in more traditionally aged students:

To compensate for this lack of time to devote to campus and their peers, adults may draw on their previous personal experiences, their wisdom from years of experience, their friends and family, and their instructors to make meaning out of the new knowledge they have acquired. To do this, they use different skills and strategies that compensate for the lack of attention they can give to out-of-class activities. (p. 36)

Participation in campus activities is relatively rare for this student population (Bean & Metzner, 1985; Donaldson & Graham, 1999; Kasworm, 2002). The non-traditional students are much more closely connected to factors in their external community. "The chief difference between the attrition process of traditional and [that of] non-traditional students is that non-traditional students are more affected by the external environment than by the social integration variables affecting traditional student attrition" (p. 485).

Conversely, in Sandler's (2000) recent study of non-traditional student persistence, social integration *was* significantly related to persistence for adult learners. This is the first time these findings have been reported for this population. In another recent study on the persistence of women over 30, Hagedorn (1999), suggested that older female students benefited from social interaction with students and faculty. This study further suggested that adult students be encouraged to attend extra curricular activities and professional conferences, and to interact socially on campus. In my recent pilot study,

students reported that the reason they do not participate in student organizations is that the organizational activities do not particularly interest them, and their families are not encouraged to participate in the social events (Samuels, 2004). One student indicated that she would not bring her children to social events on campus because the younger students did not watch their language around her children, and also that the social events often would involve drinking behaviour (Samuels, 2004).

High school grade point average (GPA) and college entrance exams have long been predictors for success for the traditionally aged student (Spady, 1971; Tinto, 1993). These variables are less significant for the adult learner (Bean & Metzner, 1985; Kasworm & Pike, 1994; Kennedy & Scheckley, 1999). Although we are increasingly more aware of the differences between younger and older students, institutions tend to continue to utilize admission criteria based upon the younger population, and tend to expect these adult learners to perform similarly (Kasworm & Pike, 1994). These students have typically been out of school for a while, and yet we expect them to compete with high school seniors who have just finished twelve years of academic training. “If higher education is to serve the older adult learner effectively, colleges and universities must consider revising their admissions criteria to reflect the fact that pre-college characteristics, such as high school grades and scores on admissions tests, and other related background characteristics of high school preparation, may not be accurate indicators of academic success that are unique to older students” (Kasworm & Pike, 1994, p. 707).

Crucial to the success of a non-traditional student is the environmental support that the student receives from family and faculty. “For non-traditional students, environmental support compensates for weak academic support, but academic support will not compensate for weak environmental support” (Bean & Metzner, 1985, p. 492). Several research studies point to the importance of family support toward the persistence to graduation (Bean & Metzner, 1985; Cabrera, & Castaneda, 1994; Sandler, 2000; Scott, Burns, & Cooney, 1998). Ironically, particularly for women, the factors that may motivate women to enrol in college, such as remediation of their life circumstances, may in fact make it difficult for them to complete their education. It may also mean significantly less support is available. “For instance, returning to study as means of dealing with an unsatisfactory marriage may meet with resistance and hostility from one’s partner to the degree that completing study becomes impossible” (Scott, Burns, & Cooney, 1998, p. 237). In a study of support systems for female non-traditional students, Carney-Crompton and Tan (2002) found that there were significant differences in the quantity of emotional and instrumental support for non-traditional students and for traditionally aged students, with the younger students reporting greater supports. Their study also contradicts other research in that it found that the lack of support was unrelated to academic success in both traditionally aged and non-traditional students.

In some instances, the faculty can substitute for family support. “When the college environment is considered, the primary impact on adults often stems from involvement in relationships with faculty and in class related learning” (Graham, 1998, p. 241). There is much evidence that adult learners value the development of community within the classroom and the interaction with caring committed faculty (Donaldson & Graham, 1999; Kasworm, 2003; Graham, 1998). “For traditional age undergraduates, peer interaction had a substantially greater impact on satisfaction than did faculty student interaction. In contrast, faculty-student interaction was more strongly related to satisfaction than was peer interaction for older students” (Kasworm, 1994, p. 705). In a study on female adult learners, Scott, Burns, and Cooney (1998) found that “the graduates in this study who had experienced a lack of family support were likely to have identified university staff and fellow students as their main source of support” (p. 237). A perfect example of this comes from the pilot study work of Samuels (2004). In that work, “Dawn’s” re-entry to Ferris State University’s Social Work Program exacerbated a tense marital situation, which eventually led to a divorce. Because of traditional family values prohibiting divorce, Dawn’s family of origin also rejected her. To compensate, Dawn turned to the social work faculty for her support. She talked about the faculty becoming her role models, her mentors, and her surrogate family during the last two years of her schooling (Samuels, 2004). Faculty influence “spans across the educational domain – not only are they involved in knowledge delivery, but they also influence the student’s larger choice of whether or not to remain in school” (Lundquist, Spalding & Landrum, 2002). In Nora, Cabrera, Hagedorn, and Pascarella’s (1996) study on the differential impacts of academic and social experiences on college-related behavioural outcomes, the most significant positive effect on persistence for both traditionally aged and non-traditional women came from non-classroom mentoring. Particularly relevant for female students is the relationship they develop with faculty outside the classroom (Martin & Scheckley, 1999). As one non-traditional student (Ely, 1997) summarized in a presentation to the annual meeting of community college;

I see faculty and staff as extensions of student services and value their ability to answer my questions. As an adult student, I see these individuals as my support system and my counselling service. Taking a few moments with me to answer a question, head me in the right direction, or just listening to me vent about a bad day is worth its [sic] weight in gold. (p. 2)

Adult Learners and their needs in Colleges and Universities

Non-traditional students “have placed an incredible burden, as well as opportunity at the doorstep of colleges and universities across the country as they hasten to develop lifelong learning experiences for the plethora of students who are arriving in ever

increasing numbers” (Brown, 2002, p. 70). What challenges does this change in student population pose for institutions of higher learning? First, to meet the needs of these students, it is important to have a good understanding of how the adult learner is different from the traditional college student. “Professionals who provide services to adult learners would benefit from increasing their understanding of the specific needs of older learners (e.g., dealing with the multiple demands of children and aging parents while attending school and working)” (Martin & Sheckley, 1999, p. 303). Then, after understanding the characteristics of this population, the challenge is to alter often well entrenched institutional systems to better address their needs (Sandler, 2000). Why is this important? These students are less likely than their traditional counterparts to complete a degree program (Bean & Metzner, 1985). “Greater family responsibilities, lower socioeconomic status, and lower levels of parental education place older learners at a disadvantage for persisting in college and completing a degree” (Kasworm & Pike, 1994, p. 692-3).

It is evident that the universities which have been highly successful in capturing this student market have greatly adapted to the individual needs of the adult learners, rather than expecting them to assimilate into the more traditional college environment (Rhodes, 2001). Weekend and evening classes, on line course work, the use of adjunct faculty working in their field, experiential pedagogy, programs that have direct links to business and industry for applied research and practice, the presence of day care centres on campus, and giving credit for life experiences are all examples of how higher education has been influenced by the adult learner (Kasworm, 2002; Rhodes, 2001). Colleges and universities are businesses. “Although colleges dislike thinking of their services within a business framework, this growing cadre of adults consists of demanding customers with very specific expectations for service. They want it their way!” (Kasworm, 2002, p. 48). Customer satisfaction ultimately determines whether a business stays viable (Senge, 1990). Competition for students in higher education is fierce. The degree to which colleges and universities identify and meet the needs of their students will ultimately determine whether they survive (Rhodes, 2001). To meet the needs of the students, systematic assessment of expectations and satisfaction with academic and institutional services needs to be conducted. If universities continue to operate blindly, based upon what is convenient or based upon how they’ve always done business, or if they choose not to understand the priorities of these adult learners, they will ultimately lose them. This population must be viewed in terms of vocation and or a change of career, so academic work must be related to experience, and outside workplace (Sandler, 2000; Samuels, 2004). It is also noted in research that adult learners lack academic self confidence

In spite of this perceived lack of academic self efficacy, adult learners expect academic rigor (Kasworm & Pike, 1994; Samuels 2004).

Andragogy, (andr - 'man'), contrasted with pedagogy, means "the art and science of helping adults learn" (Knowles, 1980, p. 43). Knowles labeled andragogy as an emerging technology which facilitates the development and implementation of learning activities for adults.

The aspect of experience as one the assumptions of andragogy seems like an important consideration in creating an effective learning opportunity for adults. The learning opportunity needs to be relevant and applicable to a person's set of experiences. Argote, McEvily, and Reagans (2003) point to experience as an important factor in one's ability to create, retain and transfer knowledge.

Critical reflection is the second key to transformational learning and part of andragogy's self-directed learning. If development is the outcome of transformational learning, then an effective adult learning opportunity needs to be created that will take personal development into consideration

Andragogy assumes the following about the design of learning:

1. Adults have the need to know why they are learning something.
2. Adults learn through doing.
3. Adults are problem-solvers.
4. Adults learn best when the subject is of immediate use.

According to Knowles (1984) an example used to apply the principles to personal computer training:

1. Explain why certain skills are taught (functions, commands).
2. Task oriented instead of memorizing. Tasks should be common tasks .
3. Take diversity into play. Acknowledge different learning levels and experience.
4. Allow adults to learn on their own and from their mistakes. (M.Knowles)

Some would contend that Knowles only introduced a theory of teaching rather than a theory of adult learning. In commenting on this thought, Merriam and Caffarella (1999) referring to Hartree suggest, "that it is not clear whether Knowles had presented a theory of learning or a theory of teaching, whether adult learning was different from child learning, and whether there was a theory at all-perhaps these were just principles of good practice" (p. 273). It is further contended that Knowles did not establish a proven theory, rather he introduced a "set of well-grounded principles of good practice" (Brookfirle, 1986, p. 98).

“Within companies, instructional methods are designed for improving adult learners’ knowledge and skills. It is important to distinguish the unique attributes of adult learners so as to be better able to incorporate the principles of adult learning in the design of instruction” (Yi, 2005, p. 34). Within this context, adult learning is aimed at not only improving individual knowledge and skill, but ultimately it is the goal to improve the organizational performance by transfer of learning directly to work applications.

Yi suggest three methods to foster learning in adult organizations: Problem-Based Learning which seeks to increase problem-solving and critical thinking skills; Cooperative Learning, which builds communication and interpersonal skills; and Situated Learning, which targets specific technical skills that can be directly related to the field of work (Yi, 2005). Each of these methods support the assumptions about how adults learn; specifically they are more self-directed, have a need for direct application to their work, and are able to contribute more to collaborative learning through their experience.

Conclusion

Through the theoretical foundation of adult learning theory and a systems perspective a lens through which this paper can be viewed has been created. The experiential nature of adult learners, the ability to critically think and the idea that all adults participate in learning are significant concepts. It is also important to look at adult undergraduates in the context of their complete environment. Past models and studies of student persistence are starting points in understanding why some adult undergraduates persist to graduation and some do not. Although research on this topic has resulted in conflicting conclusions, most of the studies do reflect that persistence factors for non-traditional students are different than those for the traditionally aged student.

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