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EDITOR'S PREFACE

The complex nature of the factors that affect an adult’s independence as a learner has been the focus of much research and discussion over the years in the field of adult education. Marcia Derrick and Paul Carr, in their article Facilitating and Understanding Autonomy in Adult Learners, explore many of these critical aspects, building on key studies to describe the nature of self-directed learning. They present an instrument that measures an individual’s intentions as an independent learner.

How do the teaching styles of instructors relate to the learning success of students with a range of different learning styles? Sheila Y. Tucker, Daisy Stewart, and B. June Schmidt examine this question in their article, Teaching and Learning Styles of Community College Business Instructors and Their Students: Relationship to Student Performance and Instructor Evaluations. Building on relevant literature on teaching and learning styles in this report of the results of their study, they call for further research and dialogue on this important topic. Helping learners to understand their own particular learning styles and how to use that information to enhance learning successes continues to be an area that is too often neglected in formal, as well as informal, educational settings. Clearly, both instructors and students should understand the concept of learning styles and be aware of how they themselves learn most effectively.

Building on supporting literature, Eileen E. Morrison shares her experience and reflections on what it means to be an “e-educator” in today’s technology-based teaching and learning environment. Transitioning from Traditional to E-educator offers some thoughtful, as well as practical, strategies to help us manage in this complex situation, and we are challenged to re-examine what it means to be an educator, as well as a learner, in these diverse contexts. Balancing the many dimensions of our own lives is presented as a foundation for our role in helping others learn effectively.

Readers are invited to make these articles “interactive” by responding on AEDNET and sharing their comments. (Directions to guide this discussion are given in this issue on page 25). Readers also are encouraged to submit an article for consideration by the editorial board of New Horizons on a related topic or other topic relevant to adult education philosophy, research, and practice. (See Call for Manuscripts on page 25 for details.)
FACILITATING AND UNDERSTANDING AUTONOMY IN ADULT LEARNERS

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Abstract

Confessore (1992) proposed that desire, initiative, resourcefulness and persistence are critical factors for understanding why adults engage in independent and self-directed learning endeavors. A series of four studies identified the conative factors associated with each construct through the development of a conceptual model that provides a framework for understanding autonomous learning. It is proposed that these constructs are embedded in the larger construct of learner autonomy. A learner who can exhibit personal autonomy will exhibit all of the identified behaviors identified as characteristic behaviors of autonomous learning. The series of four studies (desire, resourcefulness, initiative, and persistence) individually produced valid and reliable instruments, and ultimately produced a single instrument, The Learner Autonomy Profile, that quantifies an individual’s intentions to engage in autonomous learning endeavors.

Introduction

Since the publication of Houle’s (1961) work on learners who undertake their own learning projects, there has been extensive research completed in an effort to better understand autonomous learning. Although not a new idea, the ability to identify key components of individuals’ proclivity to learn has remained elusive. Houle (1961) writes, “Effort to explore the reasons why some people become continuing learners has made it clear that there is no simple answer to this complex question. Each person is unique and his [or her] actions spring from a highly individualized and complex interaction of personal and social factors” (p. 80). According to Houle (1961) behind any decision to learn something new lies a complex network of motives, interests, and values, and behind them, yet another layer of complex inter-linked factors; “a cataract of consequences” (p. 29).

During the 1960’s, research focused on how and why adults engage in learning activities. Houle (1961) prepared a series of lectures on what kinds of men and women retain alert and inquiring minds throughout the years of maturity. He conducted in-depth interviews with adult learners based on their reasons for participation in learning (why and what adults learn, how they learn, and what help they attain), and classified learners into three subgroups; goal-oriented, activity-oriented, and learning-oriented. This work was followed by a nationwide study, undertaken by Johnstone and Rivera (1965), who determined that “self-learning” activities comprised a major part of the learning that was being undertaken by adults in the United States.
A number of attempts have been made to document the process (Tough, 1979; Penland, 1979), to better understand the underlying psychological dimensions (Long, 1989), and to determine environments that support and enhance its incidence (Foucher & Tremblay, 1994; Foucher & Gosselin, 1995). However, the field is characterized by inadequately defined theories particularly in understanding the psychological dimensions of independent learning activities.

The major themes in adult learning have been on the external management of the learning process and the internal conditions not clearly identified or understood. The research has focused on the environmental and sociological conditions associated with the process of learning throughout adulthood and beyond. A less prominent perspective is the psychological conditions necessary for understanding the learner who continues to engage in learning throughout life. Long (1989) asserts that research in self-directed learning can be conceptualized under four major paradigms: sociological, teaching technique, methodological, and psychological. Long (1989) additionally asserts that the “psychological conceptualization is both necessary and sufficient to explain self-directed learning (p. 10).

One aspect of this dimension is the learner’s personal attributes and characteristics. The concept of autonomy can be placed within the framework of personal attributes. Thus, within this structure, learner autonomy can be identified and understood as the characteristic of the individual who exhibits agency or intentional behavior with respect to their learning endeavors. Learner autonomy is one of the personality characteristics associated with autonomous learning (such as, desire, resourcefulness, initiative, and persistence) (Confessore, 1992). These factors are founded on the individual’s psychological intentions to engage in autonomous learning. Autonomous learning is the process in which the learner makes an intentional decision to assume the responsibility for a learning situation.

Researchers have identified general characteristics of effective learners, but have not established a clear understanding of the specific characteristics that facilitate or obstruct learner autonomy. As professors of doctoral programs, we are particularly interested in those learners whose behaviors and attributes enable them to successfully negotiate the educational journey, and more specifically understanding the barriers that impede or hinder the success of others.

The implications for such understanding would assist in the selection or support for academic programs, training, and staff development activities. This is particularly important in the transformed workplace of the 21st century, which requires a different set of skills, knowledge, attitudes, and competencies of workers. Constantly changing work conditions and need for knowledge requires employees who are able to learn autonomously. Nearly ten years ago, research determined that autonomous learning is occurring as a natural part of the workplace (Confessore & Confessore (1994); Foucher & Tremblay, (1993); Kops, (1993, 1997). The conditions of the workplace today are even more driven by the need for employees to be autonomous. Therefore, the central significance of this research is not only understanding the behaviors that facilitate learner autonomy, but also understanding the long-term implications for the educational field, and the corporate and business world.
Autonomy and Autonomous Learning

The characteristic behaviors associated with autonomous learning (resourcefulness, initiative, and persistence) were identified through research that supports the notion of co-occurring behaviors—a behavioral syndrome in which the identified behaviors are evident individually and collectively. The construct of desire (Touchstone, 2000) and the behaviors associated with desire are viewed as precursors to intentions and as such, will not be included within the framework of autonomous learning.

The concept of autonomy exists within the framework or personal attributes of an individual. Chene (1983) defines autonomy of the learner as “independence and the will to learn. Autonomy is a structure which makes possible the appropriation of learning by the learner” (p.46). In essence, the concept of autonomous learning is enhanced by considering an individual’s motivation to engage in learning throughout life rather than in episodes of self-instruction. Merriam and Caffarella (1991) state that “learning in adulthood means becoming more autonomous and self-directed” (p.215). Candy (1991) suggests “continuous learning is a process in which adults manifest personality attributes of personal autonomy in self-managing learning efforts” (p.459). Thus, the characteristics of learner autonomy are those of independence of thought and desire that lead to the autonomous learning behaviors of resourcefulness, initiative, and persistence.

Learner autonomy is the process in which the learner makes an intentional decision to assume the responsibility for goal setting, planning, and action in a learning situation. In other words, the learner is in control of the learning. Knowles (1980) states “The locus of responsibility for learning lies within the learner” (p.51). This notion of the self in control of a learning situation forms the foundation of autonomous learning.

Initiative in Autonomous Learning

Ponton (1999) defined the theoretical construct of personal initiative in autonomous learning consisting of five behaviors: goal-directedness, action-orientation, active-approach to problem solving, persistence in overcoming obstacles, and self-startedness. Goal-directedness refers to establishing learning goals and working towards the accomplishment of those goals. Bandura (1997) asserts that specific and challenging goals are important to motivation because of the self-satisfaction that occurs when the goals are achieved. Although the long-range goal provides the direction, it is the achievement of the proximal goals along the way that provide the impetus for sustained effort. Action-orientation refers to how quickly in individual transfers the intention to engage in some learning activity into action. Ponton (1999) additionally asserts that the rapidity of the action will depend upon the identification of a learning goal and a plan before the intention can be acted upon. Self-startedness is the behavior of motivating oneself. Self-startedness behaviors ability to identify outcomes, establish goals, develop plans for implementation, and actively work towards those goals in an independent manner. An active-approach to problem solving is assuming the responsibility for finding solutions to barriers or obstacles that may occur in learning. Persistence in learning is sustained action despite the presence of obstacles.
Resourcefulness in Autonomous Learning

Carr (1999) identified the behaviors of learner resourcefulness as anticipating future rewards of learning, prioritizing learning over other activities, delaying immediate gratification, and solving one’s problems in learning. The resourceful learner is able to recognize the anticipated future value of the learning, keep the learning a priority despite other goals or obstacles, postpone activities that may be exciting or fun for the future value of the learning, and solve problems related to the learning endeavor.

Persistence in Autonomous Learning

Derrick (2000) asserts that understanding the behaviors associated with persistence in learning is critical to understanding why some individuals are successful and others are not successful in their learning endeavors. She additionally asserts that persistence in a learning endeavor is predicated upon the volitional control that enables the individual to self-regulate the behavior necessary for success in an autonomous learning situation. Volition is the mediating force between intentions to learn and the behaviors [the strength of the desire or reason for and against acting upon that desire] to learn. Volitional control is the commitment to a goal and is attained by the regulation of self. Self-regulation of those enduring behaviors necessary for goal attainment is contingent upon volition. The strength of the desire for acting in a particular way influence the level of volition required to self-regulate the behavior. In other words, persistence in a learning endeavor is the volitional behavior that enables the individual to sustain the effort and perseverance necessary to remain focused on the achievement of a goal, despite obstacles, distractions, and competing goals.

The Development of the Learner Autonomy Profile

Each of the behaviors associated with autonomous learning has specific characteristics associated with that behavior. The characteristic behaviors associated with initiative, resourcefulness, and persistence in autonomous learning endeavors are identified as a behavioral syndrome described by the presence of the co-occurring behaviors. Individual intentions are viewed as being related to specific behaviors based on the beliefs that the individual has about that behavior. Each factor (desire, resourcefulness, initiative and persistence) was designed and developed as individual research for the completion of the requirements for the doctoral degree. The reliability and validity of each instrument was determined using principal component factor analysis, Pearson’s correlations, and calculation of Cronbach’s Alpha through a test-retest design. The Inventory of Learner Desire consisted of 57 items \( (n=263) \) with a computed alpha of 0.90. The Inventory of Learner Resourcefulness consisted of 80 items \( (n=189) \) with a computed alpha of 0.96. The Inventory of Learner Initiative consisted of 55 items \( (n=77) \) with a computed alpha of 0.94. The Inventory of Learner Persistence consisted of 52 items \( (n=275) \) with a computed alpha of 0.84. The inventories have gone through subsequent refinement, and additional iterations have resulted in the development of a valid and reliable instrument (The Learner Autonomy Profile), a single battery of four components that assesses desire and intentions to perform autonomous learning.
Summary

The Learner Autonomy Profile is a four-scale instrument that assesses learner autonomy characteristics in the conative factors of desire, resourcefulness, initiative, and persistence. Each of these conative factors and the supporting subscales were identified through foundational and theoretical research that identified and quantified each specific behavior. Self-assessment items were developed from the theoretical base identified and developed by Carr (1999), Derrick (2000), Ponton (1999) and Touchstone (2000), and validated through a test-retest design.

Fishbein and Ajzen (1975) assert that a person should perform those behaviors he or she intends to perform. As such, it is important to assess intentions to engage in a particular behavior rather than assess actual behaviors from past experiences in learning. Thus, an instrument that assesses intentions to engage in autonomous behaviors (as related to autonomous learning) should tell us how the respondent is likely to perform those behaviors. The implications for understanding and facilitating learner autonomy hold promise for the future and the direction of programs for adult learners. For learners, particularly doctoral students, the ability to be an independent learner is crucial for success. For students to successfully negotiate the doctoral process, it is crucial to understand the learning versus the academic requirements for the degree. It is not about intelligence but rather the relative capacity to become independent learners that hold the key to success. The implications of this research hold profound understandings for promoting and facilitating learner autonomy in all areas and levels of education, for both formal and informal learning situations.

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ABSTRACT

This study was designed to determine whether a match between instructors’ teaching styles and students’ learning styles would foster student success as evidenced by higher course grades and final exam scores. Further, student evaluations of instructors were examined to determine whether a match between instructors’ teaching styles and students’ learning styles would yield more positive evaluations of instructor effectiveness. Study participants included five business instructors and 99 students from two community colleges. There was no significant relationship between learning style/teaching style match and student success as indicated by course grades, final exam scores, and evaluations of instructors. A significant relationship existed, however, between course grades, final exam scores, instructor evaluations, and GPA.

Learning style research indicates that students identified as being slow or poor achievers by their instructors “had learning preferences (that is, strengths) that were not supported within the structure of traditional schooling” (Marshall, 1991, p. 225). If learning preferences were supported through altering educational conditions to meet learning style preferences, statistically significant improvements in behaviors, grades, and attitudes would be observed (Dunn, Beaudry, & Klavas, 1989). This philosophy can be referred to as “the match of critical learning style factors to environment and instruction” (Marshall, 1991, p. 226). Recommendations reported in the education literature today often promote matching learning style with teaching style to augment achievement (Hyman & Rosoff, 1985; Sullivan, 1993). A match between students’ preferred learning style and the instructor’s preferred teaching style produces significantly higher final exam scores and course grades (Miglietti, 1994; Matthews, 1995; Canfield, 1992). Researchers collecting data at research centers such as the University of Chicago and the University of Wisconsin Research and Development Center for Cognitive Learning found that “individual learners have their own preferred learning styles and that instructors have some responsibility for gearing up their teaching styles to ‘fit’ the preferred learning style of each
learner. This recognition has introduced a new thrust in educational research—matching teaching styles with learner styles” (Henson & Borthwick, 1984, p. 4).

**Purpose of Study**

In the field of business education, research has not been reported that addresses the match between the teaching styles of business instructors and the learning styles of their students. This match is of concern for improving learning in specific business education content areas such as keyboarding, word processing, and office technology. The purposes of this study were to identify the teaching styles of business instructors and the learning styles of their students in specific content areas, to determine if a match existed between the two, and to determine if relationships existed between style match and student success as indicated by course grades, final exam scores, and instructor evaluations. Thus, for this study, answers were sought for six research questions:

1. What are the teaching style profiles, including typologies, of the business instructors as measured by the Canfield Instructional Styles Inventory?
2. What are the learning style profiles, including typologies, of students in specified business classes as measured by the Canfield Learning Styles Inventory?
3. What is the percentage of match of teaching styles and learning across the classes of business instructors?
4. Does a relationship exist between students’ success as indicated by course grades and a match between their learning styles and the instructors’ teaching style?
5. Does a relationship exist between students’ success as indicated by final exam scores and a match between their learning styles and the instructors’ teaching style?
6. Does a relationship exist between student evaluations of their instructors and a match between teaching style and learning style?

**Related Literature**

Learning style, as defined by Canfield (1992, p. 1) is “the affective component of educational experience, which motivates a student to choose, attend to, and perform well in a course or training exercise.” Learning style is consistent across a wide variety of tasks. It has a broad influence on how information is processed and problems are solved, and it remains stable over many years. A teacher’s teaching style is by definition "the behavior of the teacher" which influences the character of the learning climate or the environment created within the classroom. Teaching style is the "operational behavior of the teacher’s educational philosophy” (Zinn, 1990, p. 55).

Anderson and Bruce (1979) stated, “matching students with selected learning environments is an efficacious means of increasing student achievement, particularly when the matching is conducted on the basis of a student’s learning style” (p. 88). Instructors can, by expanding their teaching styles, support opportunities for students with different learning styles to increase their learning (Friedman & Alley, 1984). By assessing learning styles, instructors can be provided with new direction toward developing more personalized instruction. This assessment, along with the appropriate teaching style repertoire, will provide the basis for improved student learning (Kaplan & Kies, 1993; Henson & Borthwick, 1984). A teacher of
engineering classes at Triton College in Illinois was able to structure courses to be responsive to students’ learning styles. The instructor developed a student profile relating to results of the Strong-Campbell Interest Inventory, ACT scores, and the Canfield Learning Styles Inventory. Learning style preference results of 312 students indicated that they preferred listening and direct experience, accepted iconic, and resisted reading. Thus, the instructor tailored the course to respond to the students’ learning styles (Debs & Brillhart, 1981).

Various researchers argue that matching instructors’ preferred teaching style to students’ preferred learning styles will produce higher academic success as measured by final exam scores (Van Vuren, 1992; Zippert, 1985) and course grades (Raines, 1978; Hunter, 1979; Carthey, 1993). Additionally, Domino (1971) contends that a match between students’ preferred learning styles and the instructor’s preferred teaching style produced significantly higher grades and produced higher scores on teacher effectiveness and course evaluations. However, other researchers assert that there is no significant relationship between style match and academic success (Hunter, 1979; Charkins, O’Toole, Wetzel, 1985; Campbell, 1989; Battle, 1982; Lyon, 1991: Scerba, 1979).

Campbell (1989) found that there is no relationship between students’ achievement as measured by exam scores and a match between their preferred learning styles and the instructor’s teaching style. His study included 45 business communication students and one instructor. Van Vuren (1992) investigated the relationship of student success as measured by exam scores and a match between teaching and learning styles. Study participants included 197 chemistry students. Van Vuren noted that students’ academic achievement might improve when information is presented to them in a format that best matches their learning style preferences.

Raines (1978) conducted research to determine if significant differences existed between the teaching styles of math instructors and the learning styles of their students. Study participants included six math instructors and 575 math students. Raines concludes that students with higher grade levels had learning styles that more closely matched the instructors’ teaching styles than students with lower grade levels. Scerba (1979) investigated the link between learning styles, teaching styles, and course grade for mathematics and English. Study participants included 500 students who were placed in one of five teaching style settings. Scerba concludes that there is no significant interaction between learning styles, teaching styles, and course grade.

Positive evaluations of instructors are noted when instructional style and learning style preferences are matched. Further, “Students and instructors communicate better and feel more satisfaction with educational plans and experiences when they have the chance to see and discuss their learning and instructional preferences” (Canfield & Canfield, 1988, p. 28). When completing instructor evaluation forms, students generally report their perceptions honestly (Machina, 1987, as cited in Miller, 1990).

Campbell (1989) suggests that further research is necessary to help instructors understand the implications of learning style research, to help them determine the learning styles of their students, and finally to assist them in planning teaching strategies accordingly. Instructors will then be able to determine ways to extend or change their styles to meet appropriate classroom situations.
Methodology

Study participants were five business instructors and 99 students from two community colleges. Participant ages ranged from 18 to 62 with the average age being 35. Fifty-four percent of the participants were required to take the business course for their major, while the other 46% took the business course as an elective. The specific subject areas included in this study were keyboarding, word processing, machine transcription, desktop publishing, and introduction to computers. The non-probability, incidental sampling technique was utilized.

To obtain the teaching styles of the business instructors and the learning styles of their students, the Canfield Learning Styles Inventory (CLSI, which measures the affective behaviors of learning style) and the Canfield Instructional Styles Inventory (CISI, which identifies the conditions whereby teachers teach best) were used. The CLSI is divided into four major categories: **Conditions for Learning** (Peer, Organization, Goal Setting, Competition, Instructor, Detail, Independence, Authority); **Area of Interest** (Numeric, Qualitative, Inanimate, People); **Mode of Learning** (Listening, Reading, Iconic, Direct Experience); and **Expectation for Course Grade** (A, B, C, D, and Total Expectation). The CISI considers generally the same dimensions as the learning style instrument. The clear interface between the two provides a context in which students and faculty can talk about learning activities as well as course design.

Once raw scores were obtained from the inventories, they were converted using Canfield's standardized profile form to obtain t-scores and percentile scores. A typology was created using the t-scores. The typology is a combination of individual learning and instructional style scales, which is used to identify learners and instructors by type. Style match was then determined based on the nine categories within the typology. To determine the percent of match, the number of instructors and students who matched were divided by the total class size and multiplied by 100. To determine the degree of match and mismatch, squares within a 3 x 3 typology grid were counted either vertically or horizontally (but not diagonally) through the boxes, counting the number of boxes you had to move through to get from the instructor’s cell to the student’s cell. The degree of match or mismatch indicated by distances of 0 and 1 reflect an adequate fit between the instructor and the student. Distances of 2 and 3 reflect a moderate mismatch. A distance of 4 indicates a substantial mismatch.

Students were blocked into two groups: high achievers who had a grade point average (GPA) of 2.5 to 4.0 on a 4.0 scale, and low achievers whose GPA was 1.0 to 2.4. The two categories were divided relative to match and non-match. Students completed instructor evaluation forms.

Instructors were provided with a form to record the students’ course grades, final exam scores, and GPA. A comparison of students' course grade and final exam scores across match and non-match was made using analysis of variance to determine if there was a significant difference between students who matched their instructors and those who did not match. Analysis of variance was used to compare instructor ratings across match and non-match to
determine if there was a significant relationship between teaching style and learning style as measured by the Canfield Instructional Styles Inventory and the Canfield Learning Styles Inventory.

Findings

Six research questions were examined to identify the teaching styles of business instructors and the learning styles of their students in specific content areas, to determine if there is a match between the two, and to determine if relationships exist between student success as indicated by final exam scores, course grades, and instructor evaluations. A discussion of each research question follows.

Research Question One. What are the teaching style profiles, including typologies, of the business instructors as measured by the Canfield Instructional Styles Inventory? The most preferred scales identified by the instructors were Organization, People, Direct Experience, and A-Influence. A-Influence indicates a strong feeling that instruction methods affect learning. The least preferred instructor scales were Competition, Numeric, Reading, and D-Influence. Instructor typologies revealed two instructors in the Social/Conceptual category, and one instructor each in Neutral, Independent, and Independent/Applied. The chi square outcome comparing the proportion of study participants to the normed group was .333 for expected and 2.667 for actual, which was not significant.

Research Question Two. What are the learning style profiles, including typologies, of students in specified business classes as measured by the Canfield Learning Styles Inventory? The most preferred scales identified by student participants were Organization, People, Direct Experience, and B-Expectation. The least preferred scales were Independence, Numeric, Reading, and D-Expectation. The Typology indicated that 14% of the student participants were Applied, 13% were Neutral, 12% were Conceptual, 11% each for Independent/Applied and Independent, 10% for Social, and 9% each for Social/applied, Social/Conceptual, and Independent/Conceptual. The chi square outcome comparing the proportion of study participants to the normed group was 2.111 for expected. The goodness of fit chi square value with four degrees of freedom for actual was 2.333. This value was not significant at the .05 level.

Research Question Three. What is the percentage of match of teaching styles and learning styles across the classes of business instructors? The Canfield instruments were used to determine the preferred learning and teaching styles. Students who matched the same preferred style as their instructors were grouped together. The degree of match and mismatch was determined by counting the squares either vertically or horizontally (but not diagonally) through the boxes of a 3 x 3 grid, counting the number of boxes you had to move through to get from the instructor's cell to the student's cell. The number of style matches was divided by the total class size and multiplied by 100 to obtain the percent of match. Thirty-six percent of the students matched the teachers' teaching styles.

Research Question Four. Does a relationship exist between students’ success as indicated by course grades and a match between their learning styles and the instructors’ teaching style? The 2-way interactions of the analysis of variance revealed that there was no significant relationship between students' success as indicated by course grades and
a match between the instructors' teaching style and the students' learning style. The F-ratio of .228 was not significant at the .05 level. Therefore, the null hypothesis was not rejected. The main effect of GPA is significant at the .003 level with an F-ratio of 9.533. The mean score of course grades (4.72) for higher achievers is significantly higher than the mean score of low achievers (4.00). Students whose learning style matched their instructor's teaching style had a higher mean course grade (4.80) than those who did not match (4.45); however, the means were not significantly different.

**Research Question Five.** Does a relationship exist between students’ success as indicated by final exam scores and a match between their learning styles and the instructors’ teaching style? The analysis of variance revealed that there was no significant relationship between students’ success as indicated by final exam scores and a match between learning styles and teaching styles. The two-way interaction F ratio was .052. The level of significance was .820. Thus, the null hypothesis was not rejected. Final exam scores were significantly different at the .014 level for GPA. The mean final exam score of higher achievers (10.72) is significantly higher than the mean score of low achievers (8.61). Students whose learning style matched their instructor's teaching style had a higher mean (11.13) than those who did not match (9.82); however, the means were not significantly different.

**Research Question Six.** Does a relationship exist between students’ evaluations of their instructors and a match between teaching style and learning style? The F-ratio was 2.135, level of significance was .147. The null hypothesis was not rejected. Instructor evaluations, however, were significant at the .003 level for GPA. The mean instructor evaluation score of high achievers (4.34) was significantly higher than the mean score of low achievers (3.80). Students whose learning style matched their instructor's teaching style had a slightly lower mean for instructor evaluations (4.17) than those who did not match (4.27). Students who did not match the instructors' teaching style evaluated the instructor slightly higher than those who matched, but with a probability of .073 this difference was not significant.

**Conclusions and Discussion**

The participants in this study were all within the moderate ranges on the scales as defined by the Canfield instruments. Since the average age of the student participants was 35, this may be due in part to the fact that learning styles have been mediated as a result of life experiences.

Literature reveals that learning styles and teaching styles can be identified through use of numerous instruments. This study found that learning styles and teaching styles were identifiable as measured by the Canfield Learning Styles Inventory and the Canfield Instructional Styles Inventory. Through use of Canfield's typologies, the degree of match or mismatch was identified between students and instructors.
The theory established by researchers that style match will produce student success as measured by final exam scores (Van Vuren, 1992) and course grades (Raines, 1976) apparently does not hold true in all situations. In this study, there was no significant relationship between style match and student achievement. The F value of .228 and .052 was not significant for course grades and exam scores between students who matched their instructor’s style and those who did not.

The lack of significant relationships between a matching of instructor and student styles with the other variables in this study can probably be attributed to the finding that both the instructors and students had style preferences that were in the moderate ranges. Thus, in working with students of this type, instructors cannot assume that changing their teaching style to accommodate perceived student learning styles will improve final exam and grade achievement.

Instructors of business courses need not be concerned about a match of their teaching style with the students’ learning styles provided that their teaching style preference is in the moderate range and also that the students’ learning style preferences are in the moderate range. This study indicated that there was no relationship between learning styles in moderate ranges and student achievement.

The theory established by researchers that there is no significant relationship between style match and students’ ratings of the instructor (Hunter, 1979; Campbell, 1989) was found to be true for the participants of this study, who were by and large in the moderate ranges on the Canfield Learning Style Inventory. Instructor evaluations for students of this type are not influenced by their learning styles. Thus, instructors seeking to improve student evaluations should look to other sources.

As might be expected, grade point average (GPA) relates to course grades and to final exam scores. Students categorized as high achievers (GPA of 2.5 to 4.0) received higher course grades and final exam scores.

**Recommendations for Practice**

Instructors should be aware of their own teaching style and the learning style of their students. If their teaching style and students’ learning styles are in the moderate ranges, they should realize that altering their teaching style will not be likely to lead to increases in student achievement. Instructors should use learning styles assessment to help students with learning disabilities and others who need remediation to achieve greater success.

**Recommendations for Further Research**

Based on the findings and conclusions of this study, the following recommendations are made:

1. The courses used in this study focused primarily on courses involving the learning of computer applications. Instructor teaching styles may be different for business classes that
do not involve hands-on computer usage. Thus, a similar study could be conducted using other business courses such as office administration, writing for business, introduction to math, editing, and accounting to determine if differences exist in learning styles and teaching styles between content areas. This type of study would assist educators in determining which learning styles and teaching styles aid in student achievement.

2. This study used the Canfield instruments to assess learning and teaching styles. As noted in the review of literature, researchers were divided with regard to the effect style match had on student achievement. The researchers used a variety of instruments. Some researchers found that style match had a significant effect on student achievement while others found that there was no significant difference between style match and student achievement. A similar study could be conducted, using the same population, which utilizes the Canfield instruments in conjunction with another appropriate instrument to compare the findings between the two instruments.

3. This study did not focus on extraneous variables. A similar study could be conducted which incorporates social variables, socioeconomic levels, race, and gender to determine if these variables significantly affect style match and student success.

4. The Canfield inventories used in this study are self-report instruments. A study should be conducted to observe teacher styles and see if they match the self-report.

Summary

Inquiry into teaching styles and learning styles are considerations for business educators. Research on the implications of teaching style/learning style match are variables that need further study for future planning in the areas of curriculum development. Such study may serve to enhance the teaching and learning process so as to more effectively meet the needs of individual learners.

References


TRANSITIONING FROM TRADITIONAL TO E-EDUCATOR

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Abstract

There is a new category of educators who are challenged to present quality educational experiences through a technology-based delivery system. The term “e-educator” has been coined to describe these innovators in adult education. This article addresses some key issues facing those who are transitioning from a traditional form of adult education to this new world of e-education. First, it presents the core issue of finding meaning in teaching, regardless of delivery method. Second, it provides ideas on how to deal with the issue of making online education meaningful for adult learners. Finally, it introduces practical ways for the educators to maintain their own meaning in teaching in a changing educational environment.

Finding Meaning in Teaching

Why become an educator? What meaning does it provide? These questions challenge adult educators whether they are use traditional, e-education or combination delivery methods. Frankl (1988) and Fabry (1994) state that having meaning in life, which includes our life’s work, is fundamental to being human. When educators lack a sense of meaning in their work, they can feel that neither they nor their work is of value. This perception could lead to professional burnout. Minimally, it could lead to teaching that lacks depth of preparation and does not engage the learner.

The good news in making education meaningful, according to Frankl (1988), is that we make choices about what we do as educators. We also can choose our attitudes toward those choices. This means that we are responsible for both our actions as teachers and our attitudes toward learning, students, and educational delivery. What does this really mean? Although, the idea of such responsibility may be awesome, it implies a certain level of freedom. Educators can choose to make any educational experience, regardless of delivery style, a meaningful one for themselves and their learners. They can choose to go beyond being communicator of information (a web-notes provider) to being an inspired scholar who makes a difference. The ideas in this article should help educators maintain the heart of a scholar in an age of technological wonder.

The first step in the process of providing meaningful learning (in any delivery format) is for educators to discern their own meaning in teaching. This may require some time and quiet introspection. Consider the following questions: Why do I teach? What meaning does it have for me? Once you have determined the answers, important to write them down and create a reference document. It can refresh your spirit when you have a challenging day as an educator.
Meaningful E-education

One way for educators to find meaning in their work is to create meaningful learning opportunities for others. Learners should find challenge and change in what they are learning, not just a grade or a certificate. This is in keeping with today’s educational environment, where educators are often asked to provide educational value or a good return on the learner’s educational (not just monetary) investment. This idea of meaningful learning is a challenge in any learning environment, but is particularly complex in e-education.

The literature provides some direction in facing this challenge. For example, Mielke (1999) suggests that educators must change their behaviors to recognize the self-directed nature of e-education. They must encourage persistence, responsibility, and mature learning skills. Encouraging these behaviors may require certain types of course design and faculty interaction. He suggests using interaction modes of learning such as internet discussion groups, e-mail for student-teacher interaction, and video streaming and video conferencing. In teaching challenging courses like research, I find it helpful to provide supplemental information via a weekly posting. A weekly narrated power point presentation allows me to clarify and reinforce important concepts. With this technology, I can talk to the students, give examples, and even interject humor when appropriate.

Mielke suggests that educators must possess enthusiasm for the content, strong technology support and a commitment to expend the needed preparation energy (3-5 hours per hour of delivery). Making e-education experiences meaningful and a good return on educational investment may take even more time than in traditional settings. I try to keep in mind that the learners also have choices. They can turn me off by switching off their computers! Somehow, through my writing and planned learning activities, I have to engage them in the learning process. This may take many “ounces of my creative juices”, but it is worth the effort when learning occurs.

Fulton (2001) also supports the need for student interaction for meaningful e-education and encourages quality in the content materials. Web-based delivery appears to run the gamut from the awful (read text and faculty notes, take a test, get a grade or certificate) to the excellent (challenging content, high learner interaction, application based). Again, educators must make the time and technology commitment to move toward a meaningful educational experience for learners.

Delahoussage, Zemke and Miller (2001) interviewed experts in the field of online learning in business. Their findings echo those mentioned previously and stress the need to have reliable technology in delivery. They also suggest the pre-testing materials whenever possible and the blending of the best of traditional and e-delivery for effectiveness. I find that what has been called the open learning model of distance education is particularly effective for providing meaningful learning. In this model, learners come together for application of concepts presented in online delivery. For these sessions, I use cases, simulations, group discussions and coaching sessions to provide additional learning application opportunities. Video streaming and CDs are provided for those students who cannot attend the live sessions. Feedback from this group
indicates that they appreciate being able to participate even vicariously. They also appreciate when they are mentioned in the session and asked for their ideas via the e-mail submissions.

Delahoussage, Zemke, and Miller also suggest that e-education is not a panacea. When meaningless delivery is used, it can be a lonely, dehumanizing and linear mode of learning. Connectedness is still a desired part of the learning experience even if it is technology based. Certainly, the authors’ comments support the previous ideas about interactive activities in e-education.

It is apparent that while e-education is a valuable tool for both business and academe, it is not a panacea. It requires time, effort, and expertise to provide quality delivery. The literature stresses the theme of learner involvement in describing a quality learning experience. Here is a summary of some practical ideas for providing meaningful e-education experiences.

1. Try chunking. Present information in short (10-15 minute) segments instead of long “lectures”.
2. Use games and simulations to maintain interest. This can include realistic case studies with discussion points.
3. Make use of as many of technology’s interactive features as appropriate. Discussion boards, chat rooms and email are especially helpful.
4. Encourage in-depth learning by posing thought-provoking questions and scenarios.
5. Respond to learners as promptly as possible. This includes answering emails, contributing to online discussions, etc.
6. Create learner profiles so students can become familiar with their e-classmates.
7. Use group work. It can be done with appropriate topics and guidelines.
8. Invite experts to be a part of a discussion board activity.
9. Use multiple types of learning activities to accommodate differing learning styles.
10. Get help! Be sure to be prepared in the technology and have tech support to increase reliability.
11. Keep reading! There is always something new to learn.

**Keeping the Meaning as an Educator**

Looking at the learner and the technology of delivery is not enough! Educators should also consider their own needs. E-education can be lonely and dehumanizing for the teacher as well as for the learner. Sometimes, educators find themselves asking, “Am I still a teacher if this box is my student?” Educators need connectedness as much as do students. So how do educators keep their spirit alive in an e-education arena? Here are some tools that come from the author’s reading and experience as both a traditional and e-educator:

**Symbols.** Using symbols as reminders of one’s meaning in teaching can be helpful in refreshing the spirit. Symbols should be meaningful to the educator and be readily visible. For example, a symbol can be in the form of art work in the office or even one’s screen saver.

**Colleague’s colloquia or “lunch buddies.”** Finding a peer or group with whom to interact can lessen the feelings on isolation faced by e-educators. These individuals can serve as sounding
boards for course delivery ideas. They can also serve as a sympathetic ear for exploring ideas and feelings.

**Changing roles.** It is very important for educators to put themselves in the learner’s position from time to time. This can provide great insight into the learner’s experience. For example, an e-educator could enroll in an online course and gain a different perspective of this delivery method.

**Journaling.** Journaling has been used as a tool for gaining perspective in many disciplines including education and psychology. The only rule to creating a journal is that there are no rules. The idea of having an uncensored forum for expressing both the joys and the frustrations of e-educator may help to maintain meaning in teaching.

**Balancing Physical and Intellectual Dimensions.** E-educators may get so absorbed in sitting in front of a computer screen or in answering emails and discussion board postings, that they neglect their physical health! Here are some simple areas to remember for maintaining balance:

- **Use time outs.** It is a good thing to do nothing without guilt from time to time. One also needs a time out from the screen to avoid both carpal tunnel syndrome and lower back strain. Walk breaks give the body relief from the “computer hunch.”

- **Get some sleep.** Seven to eight hours of restful sleep per day is normal for adults.

- **Balance nutrition and exercise.** This sounds so simple but it is often difficult in the hectic life of an educator. It is important to make one’s nutrition and exercise habits fit one’s lifestyle. Otherwise, they are intentions and not actions.

**Balancing Spiritual and Intellectual Dimensions.** To maintain one’s meaning in teaching, it is important to address more than one’s physical needs. The spirit must be honored as well. Here are some ideas for accomplishing this undertaking:

- **Remember the need for contemplation.** While e-educators spend many hours in computer delivery, they also need quiet time to think. To maintain meaning as an ed-educator, it is necessary to find a safe haven where both the intellect and the spirit can be nourished.

- **Practice humor therapy.** There is much data on the physical and mental health benefits of humor. Laughter can definitely renew the spirit.

**Summary**

Delivering meaningful education through online delivery poses unique challenges for the educator. Students expect a meaningful learning experience with appropriate levels of interaction and content quality that provides value for their investment in time and
resources. Educators must find ways to continue to find meaning in teaching with through a new delivery method. What an exciting time to be an educator!

References


Other Resources

MERLOT (teaching ideas) [www.merlot.org](http://www.merlot.org)
Syllabus magazine [www.syllabus.com](http://www.syllabus.com)
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