

**An Exploratory Study of the Philosophy and Teaching Styles of Georgia Workforce
Educators and Entrepreneurship Instructors**

by

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Abstract

This exploratory study examines the adult educational philosophies and teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia. A workforce educator is an educator teaching workforce skills; an entrepreneurship instructor is an educator who teaches entrepreneurship skills. Conti's Principles of Adult Learning Scale (PALS) and Zinn's Philosophy of Adult Education Inventory (PAEI) instruments were used to examine relationships between the educational philosophies and teaching styles among the participants. The PAEI describes which educational philosophy an educator values, and the PALS measures the frequency an educator practices one teaching style over another.

The reliability coefficients were Cronbach's alpha = .99 for both surveys. Descriptive statistics were computed for the sample. The alpha level for this study was $p = .05$. Sixty-two surveys were returned from each of the populations.

Mean scores on the PAEI tended higher on the progressive and behaviorist orientation. A small number of instructors reported scores reflecting some disagreement, but overall participants had no strong disagreement with all five educational philosophies. This tended to support the literature that instructors may not be aware of any inconsistencies within their beliefs due to lack of personal examination into their educational philosophies.

Total mean scores fell below the mean established by Conti (2004) for the PALS. This indicated that instructors tended to be more teacher-centered rather than learner-centered. Entrepreneurship instructors had higher means scores on all teaching style factors, than workforce educators.

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CHAPTER I. INTRODUCTION

Introduction to the Study

This research was an exploratory study of the philosophy and teaching styles of Georgia workforce educators and entrepreneurship instructors. This chapter presents the background of the study, the problem and describes its significance. The limitations of the study and summary conclude the chapter.

Background of the Study

Educators should consider implications of what they are doing in their classrooms before interacting with students (de Chambeau, 1977). Unfortunately, few instructors consider the implications of their methods or activities (Elias & Merriam, 1995; Zinn, 1990). Anyone who engages in the act of teaching is “guided by some theory or some philosophy” (Elias & Merriam, 1995, p. 5). According to Apps (1985), “a well-developed working philosophy can provide the educator with an attitude that requires all of the pieces in the educational situation to be considered” (p. 4). Therefore, a teacher becomes a philosopher of education when consideration and application of principles occur in classroom processes (Elias & Merriam, 1995).

Elias and Merriman (1995) outlined six philosophies of adult education (liberal, behavioral, progressive, radical, humanistic, and analytic) and described their origins and typical usage in terms of methods, concepts and techniques. Each philosophy illustrates the role of the teacher and student engaged in very specific roles. Darkenwald and Merriam (1982) wrote that all teachers “make decisions and act in ways that assume certain values and beliefs” (p. 37).

Educational philosophies affect teachers, curriculum, and learning materials, therefore, it is vital for teachers to “engage in a process of examining what (they) believe and value, (so that teachers) will have a clearer sense of where the instruction and learning journey is leading” (Galbraith, 1999, p. 13).

According to descriptions of the philosophies written by Elias and Merriman (1995), the humanistic and radical philosophies incorporated learner-centered styles. The prevailing four philosophies—behavioral, liberal, progressive and analytic—tend to be more teacher-centered. Research suggests a direct relationship between educational philosophies and instructor teaching style (Conti, 1985; Zinn 1990). “The educator’s view of the role of the teacher in the teaching-learning process discriminates groups in this relationship” (Conti, 1990, p. 77) and “the teacher’s actual conception of philosophy will affect his mode of teaching” (Suissa, 2008, p. 4).

The importance of the small business (micro-enterprise) to any economy cannot be overemphasized (Acs & Audretsch, 1990). The micro-enterprise is viewed as a significant contributor to economic growth and development of certain geographic areas, where large businesses chose not to operate (Storey, 1982). Future economic expansion is reliant upon the continued success of small business owners; education and training of the small business owner is an important factor in permeating that success (Muske & Stanforth, 2000). Literature has described, over the past decade, the best learning system within business resource centers and incubator training facilities were those that emphasized self-directedness and learner-centered instruction (Lichtenstein & Lyons, 1996).

Statement of the Problem

The personal adult educational philosophies of Georgia’s workforce educators and entrepreneurship instructors were examined, because “personal philosophy affects the way an

educator works with people and the entire education process” (Boone, Buckingham, Gartin, Lawrence, & Odell, 2002). Researchers (Beder, 1989; Boone, Buckingham, Gartin, Lawrence, & Odell, 2002) have meticulously delineated the importance of establishing the philosophical orientation of training programs, reflected beliefs about how adult learning take place, identified methods and processes instructors needed to used in order to meet training program goals. By identifying the education philosophies and how they relate to the teaching styles of entrepreneurship instructors and incubator faculty it is possible to “produce a professional who questions the theories, practices, institutions, and assumptions of others” (Elias & Merriam, 1995, p. 206) and produce “a consciousness of unconscious beliefs and behaviors that affect practice” (Tisdell & Taylor, 1999).

Significance of the Study

Big businesses for years have enjoyed the support of governments, financiers, and other stakeholders; since small and medium-sized enterprises contribute significantly to economic growth, the focus of support has shifted towards small business development (Ladzani & van Vuuren, 2002). Future economic growth depends on the continued success of small business owners (Muske & Stanforth, 2000). And the success of the entrepreneur, in the undertaking of his or her micro-enterprise, depends upon the adult educators’ “ability to uncover, discover, and stimulate the entrepreneur” (Yarzebinski, 1992, p. 32).

Zinn (1990), Conti (1985, 1990) and others linked educational philosophy to teaching-style and teaching-style to student achievement. There is evidence indicating a relationship between “an individual’s beliefs, values, or attitudes and the decisions and actions” (Zinn, 1990, p. 40), or more accurately, between “what one believes and what one actually does” (Tisdell & Taylor, 2000, p. 6). A “person’s philosophy of life provides a framework by which (he or she)

live and act” (Zinn, 1990, p. 40). Tisdell and Taylor (2000) described the importance of an instructor knowing their educational philosophy because self-examination and critical inspection of practices will create a consciousness of some unconscious beliefs that affect practice (Tisdell & Taylor, 1999, p. 6).

The results of this study could be used to help entrepreneurship instructors and incubator faculty individual identify individual teaching-styles, personal educational philosophies, and the impact those philosophies and styles have upon teaching-learning process. Roles of the state’s incubator faculty and system may be extended beyond their existing limits and local developers could develop a community attitude, which welcomes supports, and fulfills the needs of entrepreneurs (Yarzebinski, 1992). In addition, the findings might assist politicians, government administrators, educators, community leaders, program developers and policy makers in the state in assessing and evaluating the quality of adult education services provided through Georgia’s incubator and post-secondary education system.

Purpose of the Study

The purpose of this study was to identify individual education philosophies and teaching styles among workforce educators and entrepreneurship instructors within the State of Georgia, using Conti’s Principles of Adult Learning Scale and Zinn’s Philosophy of Adult Education Inventory. The study examined the relationship between the teaching styles and educational philosophies of entrepreneurship teachers.

Research Questions

This study addresses the research problem by responding to the following research questions:

1. What differences exist in philosophical orientations of workforce educators and entrepreneurship instructors within the State of Georgia?
2. What differences exist in teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia?
3. What relationship exists between the philosophical orientations and teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia?

Limitations of the Study

The disadvantage of a mailed questionnaire, according to Ary, Jacobs, and Razavieh (1996), is the misinterpretation of the questions by respondents. Other limitations of this study were:

1. This study was limited to in the state of Georgia. By using one state in a particular region of the United States, the results may be difficult to generalize to other state.
2. The instrument was self-reported. Misunderstanding of the instrument texts may have caused some respondents to answer inaccurately.
3. Respondents were aware their personal philosophies and teaching styles were the subject of research. The survey relied heavily on the respondents to be truthful.
4. The effects of post-Hurricanes Katrina and Rita are still relevantly unknown. The influx of displaced persons and relocation of refugees from Mississippi and Louisiana impacted the state as well as, the economic damage to businesses and financial impact to employees and business owners.

Definitions of Terms

The words below represent terms applied within this study

Adult Education Philosophy: The attitudes and ideas teachers and instructors possess and incorporate, intentionally or unintentionally, into their learning environment and lesson content. Philosophies exist apart from curriculum tools and teaching techniques (Elias & Merriam, 1995).

Entrepreneur: An individual who starts and assumes accountability for the outcome of a micro-enterprise.

Entrepreneurship Instructors: An educator who teaches entrepreneurship skills.

Entrepreneurship Training: Training prospective entrepreneurs specific business skills on how to start and operate a micro-enterprises.

Entrepreneurship: Is the practice of creating a start-up and operation of a micro-enterprise in response to identified opportunities.

Incubator: A physical facility that provides business support resources and services to entrepreneurs and micro-enterprises.

Micro-Enterprise: Small business, typically having 5 or fewer employees.

Philosophy of Adult Education Inventory (PAEI): Developed by Lorraine Zinn (1983), the PAEI Instrument measures an Entrepreneurship Instructor's Adult Education Philosophy.

Principle of Adult Learning Scale (PALS): Instrument measuring the teaching style of an entrepreneurship instructor, developed by Gary Conti (1982).

Teaching: Regardless of the lesson content or curriculum, the "distinct qualities" (Conti, 2004, p. 77) or "characteristic behavior" (Conti, 1982, p. 79) an instructor employs in learning situations.

Workforce Education: Teaching and training undereducated adult learners workforce skills that prepare them for employment in a variety of industries, instruction may include basic literacy and numeracy.

Workforce Education Instructors: An educator teaching workforce skills.

Summary

The purpose of this study and research questions was to explore the philosophy and teaching styles of Georgia workforce education and entrepreneurship instructors. Chapter I present an overview of the research study. Chapter II provides a review of relevant literature. Chapter III presents the methodology used. Chapter IV presents the findings reported. Chapter V concludes the study, which presents a discussion of the findings and recommendations for future research.

CHAPTER II. REVIEW OF LITERATURE

Introduction

Guttman (1992) suggested that job training is a second chance system for those, mainly the poor and disadvantaged, who have not been well served by the mainstream education system. The U.S. Bureau of Census (2000) reported that the South has 34 percent of the nation's total population, of which 48 percent earn incomes below the poverty level. The 2000 Census further revealed that the South has the lowest educational attainment level of any region in the U.S. As our nation's economy, industries, and business transform to meet the challenges of the 21st century, it is also necessary that our government systems and structures evolve to support our economic growth and job creation (U.S. Department of Labor, 2008).

Every sector of America's economy has been hit by unemployment and factors such as population growth, cheap foreign labor, corporate downsizing, and increase imports continue to fuel unemployment. Communities crave economic growth and new jobs (Yarzebinski, 1992). As economic developers make concerted efforts towards implementing job-generating solutions, government officials are becoming more aware that economic growth relies heavily on local entrepreneurs and community support of their small business or micro-enterprises (Yarzebinski, 1992).

Encouraging small business development is a way to fuel economic growth and expanded employment opportunities (Nelson & Mburugu, 1991). Micro-enterprises have been an effective strategic initiative in alleviating poverty and foster economic development (Soto, 2002). Entrepreneurs generate a significant source of employment opportunities in undeveloped

economic regions by creating and selling products or services (Nelson & Mburugu, 1991). They also provide opportunities to people beyond just a way to earn a living, but as a way to become more active in their communities, improve their personal relationships and their quality of life.

Entrepreneurs

An entrepreneur is an individual who identifies economic resources in lower productivity areas and then moves them to areas of higher productivity and greater yield (Yarzebinski, 1992). Nelson and Mburugu (1991) described the entrepreneur as a person having “the ability to identify and evaluate business opportunities in their environment, gather resources to take advantage of those opportunities, and take appropriate action to ensure the success of the business” (p. 34). Owning a business has been typically associated with being an entrepreneur. But according to Yarzebinski (1992), simply owning a small business doesn’t qualify a person as an entrepreneur but rather entrepreneurs are people who hold certain identifiable behaviors that allow them to respond to various business situations.

Entrepreneurship Training

Increasing small business growth and impacting local economies through job creation and small business sustainability is the primary purpose of entrepreneurship training. Most entrepreneurship training programs offer more than one type of training (Klein & Clark, 1996). The literature identified two types of entrepreneurial training and support. The first is a prudent approach that examines learning by doing. The second focuses on the core elements of business.

The majority of entrepreneurship training programs are design around the core elements of business. This type training involves instruction in business plan writing, basic business law, bookkeeping, time management, organizational skills, marketing and financing. Entrepreneurs also learn ways to handle and deal with issues outside the physical entity of their enterprise and

learn how to seek support services and identify resources that will aid in their business achievement goals (Ladzani & van Vuuren, 2002). Importantly, in this type of training, basic business literacy is addressed. Business literacy is an individual's ability to read, write, compute, place orders, monitor inventory, and solve business problems and type correspondence at proficient levels to function as an entrepreneur.

Computer literacy is essential for today's entrepreneur. It is considered a basic business competency. However, the literature reveals a significant lack of computer usage in the literacy training of adults. Freer and Alexander (1996) conducted a study on the use of computers to enhance adult literacy instruction. Sixty-seven adult literacy centers in Florida, and 169 centers in Ohio were identified. Results from the study indicated that in Florida 444 out of 2,858 (16%) instructors had knowledge of word processing skills needed to teach adults, and 869 out 2,858 (30%) instructors reported that they had computer access, but only 135 out of 2,858 (5%) instructors used them to teach writing. Results from Ohio indicated that 745 out of 1,533 (49%) instructors had knowledge of word processing skills needed to teach adults, and 855 out of 1,533 (56%) reported that they had computer access, but only 264 out of 1,533 (17%) used them to teach writing. The study further identified the need for computer training for continuing education teachers. In the state of Florida, 43 (64%) of their centers needed adult writing programs, and Ohio identified 92 (54%). Based on the findings, the authors recommended that policy developers study how to best supply state sponsored programs with the needed equipment and facilities to teach writing. Staff developments for paid and volunteer teachers on how to teach writing using the computer were also recommended.

Many individuals seek out entrepreneurship training as a way to increase profits and to grow their businesses (Ladzani & van Vuuren, 2002). Entrepreneurship program graduates fair better in these areas than those who do not attend training. Individuals who participate and graduate from entrepreneurial/micro-enterprise programs “see greater long-term success, increased income, shorter break even points, less employee turnover, decreased reliance on public assistance, and business revenue” (Cranwell, 2007, p. 4). Class participants, who took training classes on proposing and generating potential business ideas or identifying market opportunities, are enabled to succeed in their entrepreneurial endeavors (Ladzani & van Vuuren, 2002). The programs should mainly stress the practical features of operating micro-enterprises rather than theoretical knowledge (Gibson & Conceicao, 2003). The critical skills and conceptual knowledge issues manifested in training classes should emulate actual business experiences and emphasize the practical application of entrepreneurship (Glenn, 2000).

According to Bredo (1997), in order to have the most effective training program, instructors must formulate activities that allow program participants to manipulate the business concepts they are processing. The transference of knowledge from teacher to the student should be the major focus of any entrepreneurial training program (Gibson & Conceicao, 2003). Entrepreneurship training programs should be designed to meet the needs and goals of program participants as well as the specific needs of the community (Klofsten, 2000). A generic curriculum will fail to meet the needs of the learners and will be highly unsuccessful in facilitating the training and development of successful entrepreneurs (Ashmore, Larson, Mahoney, & Leiken, 2000).

Mentors

A variety of definitions appear in the literature on mentoring. Mentoring has been referred to as a relationship in which a knowledgeable person assists a less knowledgeable person (Eisenman & Thorton, 1999). Bowen (1986) offers more clarity: “Mentoring occurs when a senior person in terms of age and experience undertakes to provide information, advice, and emotional support for a junior person in a relationship” (p. 65). Mentoring relationships usually occur over extended time periods and have commitment by both parties (Bowen, 1986). New entrepreneurs should be supported on a mentoring basis (Deakins et al., 1998). Research on mentoring programs revealed the positive influences mentoring have on mentee performance as well as fitting well in organizational environments (Fagenson-Eland et al., 1997). Mentoring helps entrepreneurs recognize critical incidents as learning experiences (Cope & Watts, 2000). Having mentoring services further legitimizes the entrepreneurship-training program and offers participants advisory capacity that fosters positive business attitudes and increased program relevance (Keyton et al., 1988). Mentors are prominent and established business people who have a skill set to required to run a specific business. According to Cope and Watts (2000), mentors have two roles:

1. To be there when an entrepreneur is experiencing a critical incidents to help them step back and talk issues through.
2. To bring forward learning from the past to try and avoid certain critical incidents or more prolonged periods in the future (p. 1).

Electronic communications offer an alternative to face-to-face mentoring. The literature refers to this type of practice as e-mentoring. E-mentoring is defined as “a relationship that is established between a more senior individual (mentor) and a lesser skilled individual (protégé) in

which information is passed through the use of electronic communication devices (Single & Muller, 2001). For example, knowledge and confidence building with the intent to develop and grow the skills of a protégé can be transmitted through devices like a BlackBerry or a computer with instant messaging software. These electronic communication devices provide a flexible environment and allow for asynchronous exchanges with the intent to help the protégé to succeed (Single & Muller, 2001). The advantages of e-mentoring are its low cost and flexibility. However, e-mentoring has its drawbacks, such as follow up and the ability to match pairs, and should only be used as a supplement to face-to-face mentoring, and not a substitute, because it is very difficult to handle complex interpersonal issues using e-mentoring (Bierema & Merriam, 2002; Single & Muller, 2001).

Networking

“The small firm is particularly dependent on the nature and quality of its relations with other firms and with the external world; these relations can be conceived in terms of exchange networks, communication networks and social networks” (Szarka, 1990, p. 10). The literature presents arguments that “networking by owner-managers of small businesses will enhance business performance” (Chell & Baines, 2000). According to Shane and Cable (2002), networking “might provide an advantage to people who seek to obtain resources from others” (p. 370). However, many entrepreneurs sparsely use networking, and use contact trading as sources of useful information (Chell & Baines, 2000). When applied to an entrepreneurship training program, networking can help improve productivity for all the students (Gredler, 2001; Seidel, 2001), and in training students can aid one another by sharing information, brainstorming ideas, and testing products and services.

Incubators

Various techniques and methods can be used to enrich an education experience (Galbraith, 1990). Though equipment, facilities, processes, and material mirror real-life business situations in scholarly activity (Roth, 1987), “not all methods will complement the adult learning transactional process and adhere to the essential characteristics of collaboration, challenge and reflection” (Galbraith & Zelenak, 1991, p. 103). According to Roth (1987), “it can be quite difficult to replicate real work situations in a training environment because of safety, economics, equipment or other barriers” (p. 60). Business incubators are excellent for entrepreneurship and business training. Incubators houses clients in a nurturing environment and provide an array of business assistance services, support personnel, and equipment.

The National Business Incubation Association (2008) clarifies:

Business incubation is a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. These services are usually developed or orchestrated by incubator management and offered both in the business incubator and through its network of contacts. A business incubator’s main goal is to produce successful firms that will leave the program financially viable and freestanding. These incubator graduates have the potential to create jobs, revitalize neighborhoods, commercialize new technologies, and strengthen local and national economies. (p. 1)

The organizational structure and the types of clients served by Incubators vary from one program to another. The core function of a business incubation program is to offer support services to start-up companies; such as management guidance, technical assistance and consulting designed specifically for new companies. Delivery services vary from incubator to

incubator. For example, one incubator program may provide free office space, while another provides rental space with flexible leases. In addition to shared basic business services, such as bookkeeping, some incubators may offer assistance in obtaining financing necessary for company growth. Incubators have also promoted programs to support micro-enterprise creation. Commonly, a Business Resource Center may be near an Incubator, or be a freestanding facility, connected to a university or housed in government buildings, where resources, information and training are centralized for entrepreneurs.

Andragogy and Pedagogy

Although the term ‘andragogy’ is of European origin, Knowles (1978) popularized its use and refined its application within the United States. Andragogy assumes that the point at which individuals achieve a concept of self-direction is the point at which they psychologically become adults. According to Knowles (1980), there are four critical assumptions upon which andragogy is based: 1) Dependency transition—a shift from a learner (child) being dependent on the teacher to being a responsible participant (adult) in the learning process; 2) Life experience—life experience plays an ever-increasing role in the learning process; 3) Readiness and willingness to learn—readiness and willingness to learn becomes more focused in the developmental tasks of the different roles within society; and 4) Subject-centered to performance-centered—there is a shift from subject-centered activity to performance or problem-centered activity for the learner (Knowles, 1980, p. 43). In support of his position, Knowles (1980) notes:

It is a normal aspect of the process of maturation for a person to move from dependency toward increasing self-directedness, but at different rates for different people and in different dimensions of life. Teachers have a responsibility to encourage and nurture this movement. Adults have a deep psychological need to be generally self-directing,

although they may be dependent in particular temporary situations. (p. 43)

The model of pedagogy is derived from the Greek words ‘paid’ (meaning ‘child’) and ‘agogus’ (meaning ‘leading’). Pedagogy literally means the art and science of teaching children. It is the process of teaching children to learn, based upon the principle that education is the transmittal of known knowledge and skills. From a pedagogical view, the concept of the learner, their experiences, readiness and orientation to learning, according to Knowles (1980):

... is a dependent one and the teacher is expected by society to take full responsibility for determining what is to be learned, when it is to be learned, how it is to be learned, and if it has been learned the experience learners bring to a learning situation is of little value. People are ready to learn whatever society says they ought to learn, and learning is organized into a standardized curriculum, with a uniform step-by-step progression for all learners. The curriculum is organized into subject matter units which follow the logic of the subject because people are subject centered in their orientation to learning. (p. 43–44)

“Individuation involves the separating of oneself from the ordinary conformity to the goals and values of the mass culture” (Crain, 2005, p. 343). “Children enter the world in a condition of complete dependency in which society defines their appropriate role of learners” (Knowles, 1980, p. 54). Adults decide what information children should have and how, when and where this information would be obtained. “As children move up the education ladder, they encounter more and more of the responsibility for their learning being taken by teachers, the curriculum planner, and their parents” (Knowles, 1980, p. 54). In some situations, some andragogical and pedagogical assumptions are realistic for adults. When applied to the learning needs of adults and children, their connection and implication toward adult learning create a commonality of helping human beings learn. Five implications for practice when teaching adults

flow from the difference in assumptions about pedagogy and andragogy (Knowles, 1980, p. 47–49). They are listed as follows:

1. *The learning climate.* The physical environment should be one in where adults feel comfortable. For example, meeting rooms should be comfortable with décor towards adult taste, furnishings and equipment should be adult-sized. The psychological climate should be one where adults feel accepted, respected, and supported. In andragogical practice, care should be taken to remove the symbols of childishness and teacher influences. For example, podiums on a stage makes adults feel that they are being talked down to; in correction, a small table on the floor would provide a more appropriate workspace.
2. *Diagnosis of needs.* The adult's self-concept of self-directivity is in direct conflict with the traditional practice of the teacher telling the students what they need to learn. Adults will learn what others want them to learn if their power to punish them for not learning is strong enough, but are more deeply motivated to learn those things they see the need to learn. In andragogical practice, great emphasis should be placed on the involvement of adult learners in a process of self-diagnosis of needs for learning.
3. *The planning process.* Human beings tend to feel committed to a decision or an activity to the extent that they have participated in planning it. In andragogical practice, the basic element of skill is the involvement of the learners in the planning process with the teacher serving as the procedural guide and content resource. The responsibility for performing this function is a mutual one between the learners and the teacher.

4. *Conduction learning experiences.* In pedagogical practice, the function of teacher is defined as “to teach.” The teacher is expected to take full responsibility for what happens in the teaching-learning transaction. In andragogical practice, the learning-teaching transaction as the mutual responsibility of learners and teacher with the assumption that a teacher cannot really “teach” in the sense of “make a person learn,” but that one person can only help another person learn.
5. *Evaluation of learning.* The crowning instance of incongruity between traditional education practice and the adult self-concept of self-directivity is the act of a teacher giving a grade to a student; this makes the adult student feel like a child. Giving grades are the ultimate sign of disrespect.

In andragogical practice, the process of self-evaluation, in which the teacher devotes energy to helping the adults get evidence for themselves about the progress they are making toward their education goals. When adult students perceive what they do at the end of a learning experience as re-diagnosing rather evaluating, they enter into the learning activity with more enthusiasm and view it as being more constructive.

Adult Learning Populations

The changing demographics of more adults and an increase in the number of older adults in the United States are a social reality shaping the provision of learning in our society (Merriam & Caffarella, 1999). Contributing to the population increase are the seventy million people born between 1946 and 1964, known as the baby boomers, and the effect on age distribution will continue to rise into the 21st century (Merriam & Caffarella, 1999; U.S. Bureau of Census 2000). Wagschal (1997) wrote, “people over fifty represent 26 percent of the population” (p. 25). According to the U.S. Bureau of Census (2000), the median age of the US population is 35.3

years, with life expectancy of 77 years. “According to participation data from the Center for Education Statistics 16 percent of adults with fewer than four years of high school participate in adult education, while 31 percent of high school graduated and 58 percent of college graduates participate” (Merriam & Caffarella, 1999 p. 8). Kim, Collins, Stowe, and Chandler (1995) wrote, “adults with less than a high school diploma are least likely to participate in adult education activities overall, in credential programs, and in work-related courses, and only 5 percent of these adults participate in adult basic education or GED preparation” (p. 3).

Unfortunately, “there are no neat boundaries such as age in adult education, as in the case of elementary and secondary education, or mission as in the case of higher education” (Merriam & Caffarella, 1999, p. 62). According to the literature, numerous methods were used to identify adult learners, before any formal definition was completed. For example, one method identified who participated and what was being studied; and another one identified life situations and respective roles (Merriam & Caffarella, 1999). However, a study by The National Opinion Research Center in Chicago, know as the national inquiry into the nature of adult education in America, resulted in the adult being defined as “either twenty-one or over, married, or the head of a household” (Merriam & Caffarella, 1999, p. 27). The National Center for Education Statistics defined participants as “persons beyond compulsory school age, seventeen and over), who are not enrolled full-time in a regular school or college program but who are engaged in one or more activities of organized instruction” (NCES, 1978, p .2). The U.S. Department of Education (1986), defined adult education as any course or educational activity taken part-time and reported as adult education by respondents seventeen years old and over.

Brookfield (1986) wrote, “simply because individuals who are adult by age are gathered together in a classroom does not mean that learning is automatically occurring” (p. 9). Clearly, “a

transactional process must occur between those individuals involved in the educational activity before challenging, meaningful, and purposeful learning results” (Galbraith & Zelenak, 1991, p. 2). Collaboration is the core of the transactional process (Galbraith & Zelenak, 1991). Therefore, “in an effective teaching-learning transaction all participants learn, no one members is regarded as having a monopoly on insight, and dissension and criticism are regarded as inevitable and desirable elements of the process” (p. 24).

According to Knowles (1970) adult learners already possess a reservoir of life experiences they are able to draw upon when entering into a learning environment. However, a person is only an adult when he or she matures to the point where their self-concept moves from dependency to self-direction (Knowles, 1970). Self-concept is a maturation process involving two major forces, external and internal, that influences growth or development (Crain, 2005). Moreover, the self-concept is a “function of developmental growth” (Cross, 1981, p. 238). In framing the self-concept, Knowles (1980) illustrates that:

Adults begin to see their normal role in life as no longer being a full-time learner. They see themselves increasingly as producers or doers. The chief sources of self-fulfillment are now their performances as workers, spouses, parents, and citizens. Adults acquire a new status, in their own eyes and in the eyes of others, from these non-educational responsibilities. Their self-concept becomes that of a self-directing personality. They see themselves as being able to make their own decisions and face the consequences, to manage their own lives. (p. 46)

The foundation of andragogy is based upon the life experiences adults have and are using when seeking education in order to increase their competence and earning potential. Andragogy is “a process in which individuals take the initiative in designing learning experiences,

diagnosing needs, location resources, and evaluating learning” (Brookfield, 1986, p. 40).

Educators should take into consideration their students’ current life situations and respective roles and learning occurs in varied places in the lives of adults (Knowles, 1980; Merriam & Caffarella, 1999). Because differences exist between adult learners in terms of values, interests, personalities, attitudes, and motivation, the instructor should customize teaching methods in order to teach the diverse population (Kennedy, 2003; Knowles, 1970). The self-concept assumption can be useful when creating successful learning environments for adult students. And “a good adult education teacher suppresses their own compulsion to teach what they know students ought to learn in favor of helping students learn for themselves what they want to learn” (Knowles, 1980, p. 56). Attention in the literature and in practice to creating a positive learning experience for adults has grown over the past decade. According to Wlodkowski (1985), there are ten things an instructor can do to help create a positive self-concept for adult students:

1. Encourage the learner by giving recognition for real effort.
2. Emphasize learning from mistakes; demonstrate a confident and realistic expectancy that the learner will learn.
3. Show faith in the adult’s capacity as a learner, work with the learner at the beginning of difficult tasks, and reinforce the process of learning.
4. Promote personal control of the context of learning through planning and goal setting, and allow learners to make choices about what, how, and when they are to learn something.
5. Encourage the use of logs to record personal progress while learning.
6. Provide prompt feedback.

7. Attribute their success to their ability and their effort. Build confidence by providing learners with learning tasks suitable to their ability; stress the importance of effort for success on learning tasks prior to their initiation.
8. Provide verbal and written messages that accentuate any achievement that turns out well in the eyes of the learner.
9. Help learners understand that effort and persistence can overcome failure. If a learner experiences an unsuccessful learning outcome emphasize their power and responsibility in the learning task and give them real hope for future performance when a similar task is undertaken.
10. Use self-evaluation procedures to heighten awareness of personal strengths and abilities in their learning tasks. (p. 88–97)

A good number of entrepreneurs have a strong locus of control, desire achievement, are energetic, detail oriented, and problem solvers (Cole & Ulrich 1987; Yarzebinski, 1992). The adult educator should make further consideration and adjustments in the training program, because adult learners will have additional characteristics and different styles of cognitive processing, as well as different learning styles, life situations, and personalities (Nuckles, 1999). For example, currently or previously employed business workers bring specific and identifiable skills to the entrepreneurship-training program. Even though these professionals are established, and more confident about their learning ability than their classroom peers, they may feel internal pressure and external motivation, such as family or money obligations, to move swiftly through the training program to reach their goals. Some participants may have just recently experienced “a major life change, transition, or development” (Smith, 1982, p. 50) and are pursuing entrepreneurship (training) as a means to survive. They too may feel pressure, and their decision

to enroll in an entrepreneurship training program may have been driven by a dramatic event or crises in which their values and roles may have been reconsidered. In contrast, the under educated learner may dislike structured training programs, and may lack basic skill or have learning disabilities; therefore, they are more likely to drop out of training programs than other populations (Smith, 1982). Therefore, “the teacher of adults are especially challenged to be sensitive to the idiosyncrasies of each learner and ensure that educational and learning activities are effective and match the special characteristics of each learner” (Merriam & Caffarella, 1999, p. 36).

Teaching Philosophy

The principles that direct teachers’ lives shape their methodology to the adult classroom (Day & Amstutz, 2003). Teaching technicians, not teaching professionals, teach material without a plan, mission or rationale (Galbraith, 2000). Various disciplines propose that a relationship exists between the beliefs, attitudes, values, and the decisions and actions that provide the fundamental framework for an instructor’s teaching style and action (Conti, 1990; Zinn, 1990). Zinn (1990) notes, “life philosophy is often unrecognized and rarely expressed, though it may be understood implicitly” (p. 40).

Since attitudes, beliefs, and values provide the basis for philosophical orientation, an instructor individual and prior experience would also influence the development of their philosophy and teaching style. Therefore, adult educators decide how to proceed when they employ lecture or activities to convey information, show new skills, aid discussion, point students to additional resources, or direct learners through generate and test and problem solving exercises. The course of action that the educator selects is a synthesis of practice based upon

educator beliefs (on what is suitable for the adult learners) and philosophical orientation (Zinn, 1990).

The literature on teaching philosophy explains, “When an adult educator engages in the practice of education, certain beliefs about life in general are applied to the practice” (Galbraith, 1990, p. 40). Therefore, teachers hold beliefs about how adults learn, how they should be taught, and what instructional practice should look like. Furthermore, “a basic assumption underlying the teaching/learning process is that the purpose of education is to promote, guide, and/or facilitate some sort of change in individuals” (Galbraith, 1990, p. 42). These assumptions of education, the role of the adult educator and students, and the understanding of differences among learners are all components of an educational philosophy. Yet, “teachers as a group are not able to clearly state their beliefs about teaching” (Conti, 1990, p. 75), stressing the significance of increasing their consciousness of the implications of their actions and beliefs. Teachers are in a position to determine whether they desire to do something differently in their classrooms, when they are provided opportunities to examine the full impact of how their educational beliefs influence their practical classroom activities. Furthermore, when a teacher formulates their educational philosophy and understand its relationship to classroom practice, they are in a better position to “negotiate the everyday realities of life with adult learners” (Tisdell & Taylor, 1999, p. 6).

Education has a significant focus to transmit change and understanding of educational philosophy provides vision for practice (Galbraith, 2000), and a “foundation for critically thinking about...practice, ideas and the political and social structure” (Galbraith, 2000, p. 16). According to Brookfield (1990) a working education philosophy provides an answer of why a teacher is doing what they’re doing. Heimlich and Norland (1994) clarifies: “Teachers who

uncover their underlying beliefs, recognize their own behaviors, and work to make the two congruent will experience a freedom that allows them to explore, reflect, apply and grow in ways that they may never have experienced before” (p. 11).

Adult educators who plan and conduct training programs waste a lot of time and energy when philosophies of education are not translated into concrete programs (Elias & Merriam, 1995; Galbraith, 1990). Quite a few training facilities place more importance on the survival of the institution rather than identifying the needs of the adult learner (de Chambeau, 1977). Training programs should be developed by the instructor philosophies (Strom, 1996). Elias and Merriam (1995) suggested that instructors “choose one particular theory as a framework upon which one builds a personal educational philosophy” (p. 206). As a result, adult educators have the ability and autonomy, to select and determine the scope and content of materials; as well as determining the best means of incorporating the material into the classroom setting. Whatever teaching philosophy the adult educator adopts, the position should inspire activities, and provide direction to practice (Elias & Merriam, 1990). Apps (1985) found that when instructors identified with one educational philosophy, they can fit their beliefs “into one of these established philosophies and become comfortable with this new found intellectual home” (p. 72).

Teaching Philosophies

Elias and Merriam (1995) presented a detailed review of each adult education philosophy along with their historical ancestry, modern programs and practices. In addition, Elias and Merriam (1995) described the role of educators and presented a concise description of the technique educators would use to facilitate learning. According to McKenzie (1985), they created “a helpful device for organizing philosophical thinking about adult education” (p. 18) that is highly regarded.

Behavioral Philosophy

The behavioral philosophy is deeply rooted in three philosophical traditions: materialism, scientific realism and empiricism, and positivism. In the materialist viewpoint, the British philosopher Hobbs believed that humans are part of nature; in scientific realism, human knowing came through the empirical process; and in positivism, understanding and knowledge is achieved through scientific observation and the measurement of facts (Elias & Merriam, 1995). Education behaviorists emphasize control, behavioral modification, learning through reinforcement, and management by objectives based upon the psychological work of Thorndale, Pavlov, Skinner, and Watson (Elias & Merriam, 1995; Gredler, 2001). Skinner (1968) theorized that humans control environments and emphasized that learning occurred through reinforcement and behavior modification. Observable behavior is highlighted by the philosophy and how a person's environment may mold their behavior. According to Elias and Merriam (1995), "needs and interests are learned from the environment" (p. 95) and behaviorist believed that through manipulation of the environment, student's needs and interest could be changed. In "practice, much of adult education is behavioral" (Elias & Merriam, 1995, p. 237).

According to Elias and Merriam (1995) "individual differences (among learners) need to be more efficiently dealt with" (p. 87); and "on the individual level, behaviorist education emphasizes the acquisition of job skill" but "de-emphasize competition and individual success" (Elias & Merriam, 1995, p. 87). Behaviorists believe the essential goal of education is to reinforce cooperation and interdependence for the good of the collective and the global society. They also believe it is the instructor's responsibility to create environments that prompt and reinforce behaviors, in order eliminate undesirable behaviors and meet the goal of survival for mankind. In the behaviorist framework, the teacher and learner roles are precisely defined. The

teacher acts as a “contingency manager, an environmental controller, or behavioral engineer who plans in detail the conditions necessary to bring about desired behavior” (Elias & Merriam, 1995, p. 88); and the environment should be one in which all student-teachers interactions should be favorable and positively reinforced. Essentially, when the learner practices new behavior, feedback is received as their role is transformed from passive to active.

Behavioral educators acknowledge that adults learn at different speeds and have different learning styles. They accommodate students by allowing extended time for meeting the course objectives and present material in various formats. The behavioral instruction philosophy “is an ideal vehicle for a self-directed individual learning experiences” (Elias & Merriam, 1995, p. 95). Traditionally, vocational education has been competency based. Competency-based education models have been integrated into adult vocational programs. Preparation for a vocation means identifying skills, and teaching them. Behavioral philosophy is commonly used in skills and vocational training, and utilizes skills identification, standardization and certification (Elias & Merriam, 1995; Zinn, 1990).

Liberal Philosophy

The liberal educational philosophy should not be confused with Classical or Liberal Arts education (Zinn, 1990). Liberal philosophy influenced early adult education efforts and propelled efforts in understanding that adults learn individually or in groups (Elias & Merriam, 1995). Educational theory and practice developments in England and France fueled the transplant of liberal education into America during the Colonial period, and were meant to produce a gentleman scholar fit for citizenship demands (Elias & Merriam, 1995).

Liberal philosophy emphasizes learning for the sake of learning. Classical humanism, comprehensive education, and traditional knowledge are stressed in the broadest sense. Liberal

tradition considers humanities, religion, and philosophy superior to science and presents “the values by which science and technology are to be criticized” (Elias & Merriam, 1995, p. 27). To date, many liberal educators still disregard the sciences as a component of a classical liberal education.

Liberal education is pertinent for all disciplines and is considered timeless. According to Zinn (1990), the adult learner is a “renaissance person” (p. 72) who is cultured and seeks knowledge. For the liberal educator, the “mere transmission and absorption of factual knowledge or development of technical skill” (Elias & Merriam, 1995, p. 29) is not the goal, but rather a conceptual and theoretical understanding of subject matter. In liberal education, knowledge can be applied to various areas. Experiences and “practical wisdom” (Elias & Merriam, 1995, p. 23) are gained “from an intelligently formed mind” (Elias & Merriam, 1995, p. 31). Through liberal education continuing education programs, older adults are recognized as the audience best equipped to utilize and incorporate the new education experiences because of previous life experiences. However, in liberal education, the prominent instructor position is reserved for the educator. Elias and Merriam (1995) explained:

There are many things liberal educators feel that can best be taught directly by the teacher. The lecture method, if well organized and suited to the ability of the students, is recognized as an efficient instructional strategy. Learning through projects, insight, or discovery methods de-emphasize the directive role of the teacher and are not endorsed by liberal educators. (p. 30)

Liberal education philosophy was the impetus for the Great Books Program, Elderhostel, and the Center for the Study of Liberal Education (Elias & Merriam, 1995; Zinn, 1990).

“Progress, change, newness, optimism, activity, practicality, efficiency, measurability, and

technology” (Zinn, 1990, p. 56) are not typically associated with associated with this philosophy. However, liberal education is still a strong force in educational today, and focuses on the actual teaching of the disciplines (Elias & Merriam, 1995).

Progressive Philosophy

The progressive movement, during industrialization, was instrumental in providing stimulation in the creation of practical programs and philosophical positions in adult education. John Dewey (1916) emphasized problem solving and experimental methods in education as the foundation for the progressive education philosophy. At the turn of the century, the United States underwent immense social, economic, and political changes; this time period was known as the Progressive Movement (Elias & Merriam, 1995). The Progressive Movement period provided the groundwork for the progressive educational philosophy because it reflected community reactions to “industrialization, immigration, emancipation, urbanization, and national maturation” (Knowles, 1977, p. 75) as well as many other “social, political, and economic problems” (Elias & Merriam, 1995, p. 47). Although the Progressive Movement culminated in the 1950s, the education philosophies are still important.

The goals of education, for early progressives, were individualistic and social. The progressive philosophy promotes well-being and effectiveness within society by taking into account the relationships between society and education. Dewey (1916) believed the highest ideal for progressive movement was maintained through education for the democracy so that educated could work together to solve societal problems.

The desires and understanding of the learner are at the core of the progressive education movement. Learners ascertain problems and identify solutions in order to enhance their aptitude through experience based education and skills acquisition (Elias & Merriam, 1995; McKenzie,

1985; Zinn, 1990). Progressive programs elicited the community to help improve public education, as well as enhance the community by providing educational opportunities to people of all ages.

In progressive education, programs are focused on learners, and should be adjusted continually in order to address the specific needs and circumstances adults face. Progressive educators, to ascertain important truths about the student's environment, use a mixture of experimental and scientific techniques. The "natural inclination of learners to grapple with problems" (Elias & Merriam, 1995, p. 59) is capitalized through integrating an activity method involving explanation of the problem and development of hypotheses. Because teachers are not the sole possessor and disseminator of knowledge, students are responsible for their own learning, learner experiences are reconstructed through interactive processes, and the experiences of the teacher are used as examples that "stimulate, instigate, and evaluate" the learning process (Elias & Merriam, 1995, p. 62).

All adult educators acknowledge the fundamental progressive principle that education is a practice of reflective inquiry (Elias & Merriam, 1995). According to Elias and Merriam, "Progressivism has had a greater impact upon the adult education movement in the United States than any other single school of thought" (p. 45). Several educational practices in adult education are stimulated by progressivism, and it helped pave the way for English as a second language programs, community schools, university without walls, cooperative extension, vocational education, and lifelong learning (Elias & Merriam, 1995; Zinn, 1990).

Humanistic Philosophy

Humanism is an expansive philosophical position that holds dear the "dignity and autonomy of human beings" (Elias & Merriam, 1995, p. 109). Humanistic adult education and

liberal adult education utilize some of the same sources. But humanism fuses human reason, intelligence and thirst for life with personal freedom and truth against the establishment and institutionalization (Elias & Merriam, 1995). The development of the entire person, which is contrary to behavioral philosophy, is the chief concern of humanistic educators because they believe human nature is naturally good.

Knowles (1970) related with the humanistic philosophy in his explanation of the learner-centered model in which the learner is empowered and self-directed, assuming responsibility for the learning activities. Much of the language and writing surrounding adult education is derived from the humanistic philosophy (Elias & Merriam, 1995). The main reason that humanistic education is equated with adult education is because the learner is viewed as self-directed and self-motivated. In addition, humanistic philosophy conceptualizes learning in terms of freedom and autonomy, cooperation and participation.

Under the humanistic philosophy, the teacher is a facilitator or learning partner and respects the self-directed nature of the student. They create learning opportunities and promoting learning without dictating the behavior or activities by valuing and incorporating the life experiences of the learner into the classroom. Curriculum is student-centered so learners are free to pursue what they identify to be “necessary, important, or meaningful” (Elias & Merriam, 1995, p. 126). Evaluation is based upon self-evaluation model, because students are the best judges for knowledge acquisition (Elias & Merriam, 1995). Humanistic educators use pass-fail grading system, and students evaluate themselves with self-reporting tools. Fundamentally in the humanistic philosophy, “the emphasis is upon learning rather than teaching and the student rather than the instructor” (Elias & Merriam, 1995, p. 123).

Radical Education Philosophy

Radical Adult Education has its “historical roots in the various radical movements that have emerged in the past three centuries: anarchism, Marxism, socialism and left-wing Freudianism” (Elias & Merriam, 1995, p. 11). However, Paulo Freire is commonly equated with the philosophy along with his pedagogy of the oppressed and radical approach to literacy education (Elias & Merriam, 1995). Ultimately, radicalism joins a person’s education to his or hers’ economic, political, and socio-cultural understanding.

In radical education philosophy, education is used as a vehicle to create consciousness-raising methods designed for the purpose of sparking political and social action. Also, education is a conduit for combating oppression and forcing necessary changes in society through uniting individual action with reflection. Radical education philosophy seeks to increase personally awareness that knowledge is power and radical change in society and history can only be achieved through their education.

In the radical philosophy, teachers are removed from positions of power and control over the learning environment. Teachers become liberators who suggest but do not determine the direction of learning (Tisdell & Taylor, 1999) and students assist teachers with curriculum design. Class work focuses on dialogue and the exchange of ideas with total participation from course participants. Discussions are based on personal exposure to real life situations and societal problems, and students utilize critical reflection and problem-posing techniques to identify possible solutions as a group.

Philosophy of Adult Education Inventory (PAEI)

The Philosophy of Adult Education Inventory (PAEI) is a self-reporting instrument used to explore the educational philosophical orientations of adult educators (Conti, 1990) (Appendix

2). The instrument assists teachers in selecting instructional content, teaching and learning objectives, instructional material, and how to interact and evaluate learners (Zinn, 1983). In part, the PAEI is based upon the Brostrom (1979) Training Styles Inventory. Brostrom created his instrument to look at educators' various beliefs about teaching and learning (Brostrom, 1979). Galbraith (2000) depicted the PAEI as "an excellent way of getting started in the development of an instructional philosophy" (p. 15).

Teaching Styles

Fischer and Fischer (1979) defined teaching styles as "a pervasive way of approaching the learners that might be consistent with several methods of teaching" (p. 251). "Teaching style refers to the distinct qualities displayed by a teacher that are persistent from situation to situation regardless of the content" (Galbraith, 1990, p. 80). Conti (1990) wrote, "because teaching style is comprehensive and is the overt implementation of the teacher's beliefs about teaching, it is directly linked to the teacher's educational philosophy" (p. 77). "The behavior of the teacher probably influences the character of the learning climate more than any other single factor" (Knowles, 1970, p. 41).

The development and effective implementation of teaching methods present a daunting challenge for educators who are resistant to change and reluctant to learn a new instructional method. For example, expository teaching can be a very useful tool in a teacher's pedagogical repertoire. This method is teacher centered. The teacher dominates all the content, delivery and discussion of material. A more suitable approach would employ an instructional method that illustrates clear curricular and learning goals and matched them to the audience. By including the adult learner in the curriculum planning process the instructor will not alienate the student from the learning process, and achieve both instructor and learner goals. The teacher's responsibility is

deeply rooted in understanding the adult and transforming their understanding into a force for learning. Teachers must be willing to change if they wish to improve student achievement.

Self-Directed Learning

Adult education concepts and philosophies reveal the development of self-directedness is a goal for adult learners and educators. In general terms, a teacher aims to transfer the skills associated with teaching, such as to decide what should be learned, the most effective means of learning it, and to know realistically and correctly when the learning has been achieved. Self-directed learning is “deliberate learning in which the person’s primary intention is to gain certain definite knowledge or skills” (Cross, 1983, p. 186–187). It is the ability to exercise learner sovereignty and “adult-learning efforts that are initiated and directed by the individual; the adult learner decides what resources will be used and how they will be used” (Seaman & Fellenz, 1989, p. 26). Skager (1978) illustrates self-directed learning as the “individualization of the learning experience toward the goal of developing the learner’s own skills and competencies in the planning, execution and evaluation of learning activities both as an individual and as a member of a co-operative learning group” (p. 14). It is “a process in which individuals take the initiative in designing learning experiences, diagnosing needs, location resources, and evaluating learning” (Brookfield, 1986, p. 40).

Self-directedness shifts the locus of control. Knowles (1990) viewed this shift as a process in which learners, with or without the help of others, takes responsibility for:

1. Diagnosing their own needs for learning.
2. Formulating their own learning objectives.
3. Identifying effective human and material resources for accomplishing their objectives.

4. Evaluating the extent to which they have accomplished their objectives. (p. 135)

Tough (1979) proposed 13 decision points relative to individuals when they are ready to learn. Tough's reflections provide a fairly accurate representation of key elements within the developmental process. Those elements are:

1. Deciding what detailed knowledge and skill to learn.
2. Deciding the specific activities, methods, resources, or equipment for learning.
3. Deciding where to learn.
4. Setting specific deadlines or intermediate targets.
5. Deciding when to begin a learning episode.
6. Deciding the pace at which to proceed during a learning episode.
7. Estimate the current level of one's knowledge and skill or one's progress in gaining the desired knowledge and skill.
8. Detecting any factor that has been hindering learning or discovering inefficient aspects of the current practice.
9. Obtaining the desired resources or equipment or reaching the desired place or resource.
10. Preparing or adapting a room (certain furniture or equipment) for learning or arranging certain other physical conditions in preparation for learning.
11. Saving or obtaining the money necessary for the use of certain human or nonhuman resources.
12. Finding time for the learning.
13. Taking steps to increase the motivation for certain learning episodes. (p. 116-117)

Skager (1978) illustrates self-directed learning as the "individualization of the learning

experience toward the goal of developing the learner's own skills and competencies in the planning, execution and evaluation of learning activities both as an individual and as a member of a co-operative learning group" (p. 14). "Learning outside the confines of formal education and training programs, learning on one's own, is the way most adults go about acquiring new ideas, skills, and attitudes" (Merriam & Caffarella, 1999, p. 41). In addressing the broad concept, Langenbach (1993) refers to Knowles definition of self-directed learning:

It is a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. And self-directed learning usually takes place in association with various kinds of helpers, such as teachers, tutors, mentors, resource people, and peers. (p. 163–164)

In framing the concept, Candy (1991) illustrates that:

Self-direction embraces dimensions of process and product, and that it refers to four distinct (but related) phenomena: "self-direction" as a personal attribute (personal autonomy); "self-direction" as the willingness and capacity to conduct one's own education (self-management); "self-direction" as a mode of organizing instruction in formal settings (learner-control); and "self-direction" as the individual, non-institutional pursuit of learning opportunities in the "natural societal setting" (autodidaxy) (p. 22-23).

There are several things known about self-directed learning. First, learners can be empowered to take more responsibility in the decision making process of their learning endeavor. Second, self-direction is best viewed as a characteristic that exists to some degree in every person and learning situation. Third, self-direction does not necessarily occur in complete

isolation. Fourth, self-directed learners have the ability to transfer knowledge and skill from one situation to another. Fifth, learning activities and resources include writing activities that are reflective, study group participation, electronic dialogues, internship and self-guided reading. Sixth, teachers can have effective roles in self-directed learning situations, for example establishing a dialogue with the learner, and being a valid resource of information. Seventh, many educational institutions support self-directed study by offering individualized study, open-learning programs, and non-traditional courses.

Seaman and Fellenz (1989) outlined specific advantages of self-directed learning as follows:

1. It contributes to what many maintain is the ultimate goal of all education that is, the development of autonomous learners.
2. Successful direction of one's own learning often brings with it much satisfaction.
3. The learner frequently anticipates using the knowledge gained and plans the learning efforts to meet recognized needs.
4. The convenience and flexibility of choosing the time, place, and other incidentals of the learning experience make it more attractive. (p. 26–27)

Applied to a learning environment, many adults find themselves in situations that do not allow for self-direction. And these situations often contradict their culture, which builds tension between the situation and the adult's self-concept. For instance, a test on bookkeeping skills can ostracize entrepreneurship students who have been socialized to dislike test for various reasons or has experienced failures in the past from failing grades. Passing the exam could open up more opportunities for business loans if a pass grade is made. However, in the eyes of the student, his self-image of himself and the one his culture has affirmed the feelings and fear of failure.

Alexander (2005) affirms that a sense of self also colors how individuals interpret their own actions and those of others. The situation of having to take a test often places the adult in a quandary and forces the adult into a resentful and resistance state.

Langenbach (1993) identified Allen Tough and Malcolm Knowles as “two pioneer thinkers in the field of self-directed learning” (p. 147). During the 1960s and 1970s, Allen Tough conducted several studies on self-directedness. His research focused on the adult’s successful efforts to learn and change, particularly the 70% of adults who are self-guided without relying much on professionals or institutions. Tough’s best-known books are *The Adult’s Learning Projects* and *Intentional Changes*. He developed the concept learning projects — a model about how adults want to learn; more specifically, when they learn they engage in specific learning. In learning projects, the adult decides how and when they are going learn, and when they have learned enough.

Tough believed that the episodes are the cornerstones in which larger learning activities are built. He suggested that an episode is a “basic unit or ‘chunk’ of time that individuals use naturally when learning on their own” (Langenbach, 1993, p. 149–150). Tough further concluded that episodes have exact time periods and are held together by the likeness in objectives, activities, or places of the thoughts and actions. And stressed that episodes are not interrupted for a period of two or three minutes and can last between thirty to sixty minutes. As more and more episodes occur, learning projects develop which are clearly related episodes in a series.

Langenbach (1993) wrote,

Self-directed learning revolves around learning projects that are made up of related learning episodes. The nature of the episodes within a project can take many forms, e.g., reading a book, listening to a lecture, etc., but they are related in the sense that they all

contribute to gaining knowledge and skill associated with a learning project. (p. 152)

In addition, Tough simplified Houle's motivational model by suggesting that adults learn things that are important to them with the purpose having an increase in self-esteem, a sense of pleasing and impressing others, and certain pleasures or satisfactions. Tough's model of self-directed learning is very descriptive and provides a fairly accurate representation of key elements within the developmental process. Knowles (1978) refers to self-direction as "taking the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning choosing and implementing appropriate learning strategies and evaluating learning outcomes" (p. 18).

Knowles' approach towards self-directed learning is similar to Tough's. Both describe self-directed education from the viewpoint of managing learning resources. However, Knowles attempts to bridge the gap between conventional schooling and the new role of facilitator of learning by discussing the new competencies required of facilitator and learner. Certain competencies should exist if the learner and the teacher desire to improve the effectiveness of self-directed learning. "The negotiation between facilitator and learner is paramount in the learning contract process" (Langenbach, 1993, p. 175).

Knowles' theory on instruction for adult learners rests on four basic assumptions that are contrasted with self-directed learning (andragogy) and teacher-directed learning (pedagogy). Knowles suggested that andragogy would be a better term to describe self-directed learning because it's based on assumptions that are vastly different than those of pedagogy. His comparison of assumptions are listed as follows:

- 1) As a person moves towards self-directedness dependency diminishes and is a natural process of maturation.

- 2) As people grow and develop, they accumulate an increasing reservoir of experience that becomes an increasingly rich resource for learning-for themselves and for others.
- 3) People become ready to learn something when they experience a need to learn it in order to cope more effectively with real-life tasks or problems.
- 4) Learners see education as the process of developing increased competence to achieve their full potential in life.

In self-directedness, the locus of control shifts from the facilitator to the learner. Knowles (1990) viewed this shift “as a process in which learners, with or without the help of others, take responsibility for diagnosing their own needs for learning, formulating their own learning objectives, identifying effective human and material resources for accomplishing their objectives and evaluating the extent to which they have accomplished their objectives” (p. 135).

Learner-Centered Teaching

A learner-centered teaching style is solely focused on the learning process. The responsibility for knowledge obtainment is solely the responsibility of the student. The proceedings in the classroom concentrate on what the students are doing and not what the teacher is doing. Therefore the learning environment should be “conducive to students needs” (Conti, 1990, p. 78), with the purpose of problem-solving skill acquisition by the student (Conti, 1990).

Learner-centered teaching occurs well in advance of the students arriving in the learning environment. Teachers can “engaged in a self-assessment process regarding their own proficiencies” (Nuckles, 1999, p. 5). All of the classroom attitudes, behaviors, beliefs, and values will spotlight the student (Nuckles, 1999). Therefore “the need for individualizing instruction, is a recognition of belief that learners differ in all respects: intellectual, cognitive, affective, and

situational” (Nuckles, 1999, p. 5). The humanistic education philosophy can fully support the function of the learner-centered instructional model, because “the role of the teacher in a humanistic education setting is that of a facilitator, helper, and partner in the learning process” (Elias & Merriam, 1995, p. 125).

In learner-centered instruction, the teacher is more of a facilitator rather than a lecturer who is freed from the duty of “being the fount of all knowledge” (Glenn, 2000, p. 12). Learner-centered instruction allows students to be proactive, and empowers them to determine the direction of the course. Empowering students and guiding their learning process is the goal for learner-centered instructors (Knowles, 1990). A learner-centered instructor directs and assists students in gaining their own knowledge rather than learning from lectures on theories (da Silveira et al., 1998). The teacher asks questions but do not provide answers. Elias and Merriam (1995) clarifies by stating that, “the teacher does not simply provide information; it is the teacher’s role to create the conditions within which learning can take place” (p. 125). But they also must criticize the process or methods used by students while suggesting options.

Teacher-Centered Teaching

Teacher-centered instruction is “currently the dominant approach throughout all levels of education in North America” (Conti, 1990, p. 77). The teacher-centered approach takes for granted that students are passive and react to environmental motivation. The role of the instructor is to be primary information giver and evaluator and have the responsibility to design an environment reinforcing desirable behavior. They also determine whether any “change in behavior” has encouraged learning (Conti, 1990, p. 78).

Most teachers are prone to teach with the teaching style they experienced as students as well as the one they learn (Brown, 2003). Many teachers have been successful in course delivery

with lectured based teacher centered instruction, it is logical to see why the style is commonly used and popularized (Brown, 2003). An instructor led classroom is effective with content related. However, when training is “physical, emotional, and intellectual environment that surrounds an experience and gives it meaning” (Caudron, 2000, p. 55), student-centered methods are more effective.

Principles of Adult Learning Scale (PALS)

Developed by Conti (1982), the Principles of Adult Learning Scale (PALS) is a self-reporting, self-interpreting, self-scoring instrument that combines several learning principles commonly promoted in the literature (Appendix 3). The purpose of the PALS is to determine preferred teaching styles. The PALS measures certain activities of a teacher that are practiced in the classroom and the regularity in which they are performed (Conti, 1990). The instrument can identify tendencies in whether teachers: use activities that are learner-centered, use personalize instruction, relate activities to learner experiences, assess student needs, create positive learning climates, allow students to develop evaluation materials, and ascertain whether teachers view themselves as facilitators or just information disseminators within the learning environment.

Summary

Entrepreneurship training and workforce instruction is available in various institutions and facilities. Many programs are attached to community colleges or universities, while others are government sponsored or business resource centers or freestanding incubators. These facilities provide essential economic growth opportunities for distressed or depressed communities. The success and failure rates of micro-enterprises are directly associated to the training entrepreneurs receive. According to the literature, self-directed and student-centered, practical application teaching methods are the best suited for adult learners (Lichtenstein &

Lyons, 1996).

A teacher's educational philosophy is influenced by their beliefs, values, and attitudes or by their view of what is appropriate for adult learners (Zinn, 1990). Elias and Merriam (1995) outlined five educational philosophies: behavioral, liberal, progressive, humanistic, and radical. The educational process and the role of the instructor and student are stated within each of these philosophies. Each philosophy has characteristics that conflict with the other philosophies, however all five are valid.

Education philosophy also impacts the teaching style of the instructor (Conti, 1990). Teaching styles are composed of the individual traits the teacher possesses and exhibit despite of the content or curriculum. Teacher-centered and learner-centered are two types of teaching styles. Many instructors prefer one style to the other, while they may practice behaviors of both. Research continues to investigate the impact different teaching styles have in various learning environments. Many adult learners require more time and energy to master what is taught (Galbraith, 1990); therefore, the instructor's duty remains in improving curriculum delivery to meet individual learner needs (Conti, 1985).

CHAPTER III. METHODS

Introduction

This chapter describes the sample, the instruments, data collection and analysis procedures. The data collection and analysis procedures used were submitted and approved by Auburn University prior to the initiation of the study. The purpose of this study was to identify individual teaching styles and education philosophies among workforce education and entrepreneurship instructors within the State of Georgia using a web based survey. The survey was based upon the Philosophy of Adult Education Inventory (PAEI) and Principles of Adult Learning Scale (PALS) instruments. Additionally, this study identified similarities and differences among the participants through mean comparison as well as examined the relationship between the philosophies and styles. The following research questions were addressed:

1. What differences exist in philosophical orientations of workforce educators and entrepreneurship instructors within the State of Georgia?
2. What differences exist in teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia?
3. What relationship exists between the philosophical orientations and teaching styles of workforce education and entrepreneurship instructors within the State of Georgia?

Design

Surveys are effective sources of data collection because they concentrate on a specific issue or event and can be quickly compiled for study (Bogdan & Taylor, 1975). They allow the researcher to obtain representative information from a larger sample than by observing and interviewing and offer the ability to rapidly collect and manage, and analyze large data sets (Creswell, 2003). The PAEI and the PALS are two published survey instruments appropriate for measuring the philosophies and teaching styles of entrepreneurship instructors and workforce educators. The PAEI and PALS are self-scoring and self-reporting and easy to administer to the participants through a web-based portal.

In this study, a cross-sectional survey design was used and delivered through a web-based portal. According to Creswell (2002) cross-sectional surveys offer the design advantage of measuring current attitudes or practices and provide information in a short period of time. Further, Web-based surveys are powerful tools for collecting and analyzing information; they take less time to prepare and deliver, and simplify the process of collecting and analyzing results (Potvin, 2007). Lazar and Preece (1999) suggest various electronic methods for reaching survey participants, including posting of a message to a newsgroup, bulletin board or listserv, or by directly e-mailing the population. Direct emailing was used, which contained inform and consent letters, survey directions, and a direct link to the survey.

Population

According to the National Business Incubator Association (2008) there are over 1,400 incubators in North America. Of those, 1,115 were in the United States in which 94% of them were operated by nonprofit organization focused on economic development. About 53% of business incubators operate in urban areas, 28% in rural areas, and 19% in suburban areas

(National Business Incubator Association 2008). The state of Georgia has 25 incubator facilities with 17 of them operating outside Metro Atlanta. However, more incubator facilities operate inside the Metro-Atlanta area, totaling 8, than many surrounding southern states (Louisiana, Mississippi, Tennessee). Comparatively, the state of Florida has a large number of incubators, which are solely located on university campuses. And several incubator facilities, in Alabama, are connected with the Chamber of Commerce, major universities, and are located in the larger cities. In the state of Georgia 25 incubator educational facilities employ 30 instructors who provide training in entrepreneurship to adults. All 30 entrepreneurship instructors were surveyed in this study.

According to the Technical College System of Georgia (2008), there are 31 facilities offering workforce education and training. These facilities operate within technical colleges across the state offering GED, English Literacy, Health Literacy programs. Also, there were 60 Certified Literate Community Programs (CLCPs) encompassing 74 counties and 2 cities, offering childcare, adult literacy services, and economic development, workplace skills training, and ESOL classes (Technical College System of Georgia, 2008). In addition, the Office of Adult Education (OAE) has 37 service delivery areas throughout the state of Georgia offering training for business and industry that focus on training in Workkeys and Career/Technical Education. Random sampling was used for this population because of the sizeable number of workforce education instructors in the state of Georgia.

Random sampling, according to Martella et al. (1999), is a “probability sampling selection technique that ensures that each individual, object, or event within the population has an equal and independent chance of being selected” (p. 120) for inclusion in the sample. Gay and Airasian (2000) wrote random sampling is “the best single way to obtain a representative sample

because it provides a higher probability for achieving representative samples than any other method” (p. 124). By request of the researcher, the directors of each facility were to randomly select five instructors from their facility and randomly distribute the survey instrument sets. There is no way to discover bias in the selection process or the criteria the directors may have used in randomly selecting which instructors were to complete the surveys because the choice or selection of participants was completely removed from the researcher’s control.

Instrumentation

Philosophy of Adult Education Inventory (PAEI)

The Philosophy of Adult Education Inventory (PAEI), developed by Zinn (1983), is an assessment tool to assist in ascertaining the extent to which an educator adheres to or values a certain educational philosophy (McKenzie, 1985; Zinn, 1990). Totalling 75 questions, the PAEI consists of 15 incomplete sentences, which frame the main stem items that address elements of education: purpose of adult education, how adults learn, teacher role, beliefs about learners, and teaching methods. Five statements, which were potential conclusions, precede each of the 15 items. A 7-point Likert scale ranged from (1) Strongly Disagree to (7) Strongly Agree with a (4) Neutral point in which the respondent selected the degree of agreement with the statement. Ranging from 15 to 105, the responses were summed and the result reflects the respondent’s agreement with each of the philosophical orientation. An investigation of all five scores should reveal the dominant adult education philosophy of the teacher (McKenzie, 1985; Zinn, 1990, 1994).

The respondents transferred the scores for each of the 75 questions to a separate recording sheet, and the score was calculated by the sum value of the grouped responses. The highest score indicated the philosophy the instructor is most likely to agree with and use in the

learning environment. The lowest score indicated the philosophy most unlike the educator's beliefs about education. A score range of 95–105 indicated a strong agreement with the philosophy, and a score range of 66–94 indicated agreement with the philosophy, a disagreement with the philosophy is a score below 55, a score range of 15–25 indicated a strong disagreement. A score range of 56–65 indicated a neutral perception of the philosophy. It is possible for educators to have two philosophies with high scores, because of overlap among the philosophies. Teachers may need to closely examine their beliefs for innate contradictions, if score combinations of three or more are close or high (Zinn, 1983).

Validity of the PAEI

Surveys and questionnaires require the same standards and levels of accuracy and consistency as with any other type of research measurement (Gall, Borg, & Gall, 1996). Gall et al., (1996) defined validity as the “appropriateness, meaningfulness, and usefulness of the specific inferences made from test scores” (p. 249). It governs the appropriateness of the inferences made from the scores or results of the test, and establishes whether or not an instrument measures what it is suppose to measure.

The extent to which test items measure a specific and intended area of content constitutes the content validity of scores from the test. Gall, Borg and Gall (1996) describe the systematic examination by content experts of the domain of specific content of a test to determine the content validity. Zinn (1983) described the process of an expert jury panel, considered knowledgeable in adult education philosophy, which examined the PAEI. Their responses showed high content validity through separate item analysis (p. 145).

Ary, Jacobs and Razavieh (1996) define content validity as defense that reveals the test items to be representative of some domain of content. “Careful and critical examination by

expert judges of the test's content to determine the relationship between the test and the defined universe" (p. 263) allows for evidence of content validity to be collected. Zinn (1983) described the process of the PAEI examination by expert judges:

Both the content and construct validity testing produced evidence that the instrument, as a whole, exhibited fairly high validity. The select jury confirmed the findings that the PAEI instrument is a valid way to identify instructors; adult education philosophy and compare with other prevailing philosophies for the field (p. 154).

Construct validity, according to Ary, Jacobs and Razavieh (1996), is the degree to which test items measure the particular construct it was intended to measure. Factor analysis, a commonly used method of gathering evidence of construct validity, statistically tested the PAEI's construct validity. Zinn (1983) described the PAEI's validation process below:

Test data were analyzed to determine the extent to which each of the variables (i.e., response options) on each of the scales (liberal, behavioral, progressive, humanistic, and radical) was a measure of one or more of the factors underlying the scale. Coefficients were calculated and presented in a rotated matrix for each of the scales, yielding between 21 (R scale) and 25 (B, P, and H scales) variables with significant factors loading. The conclusion drawn from these data was that all of the response options on the Inventory were significant measures of at least one of the factors on each scale and thus, none of the individual variables or items could be eliminated without making other modifications and retesting for validity. (p. 150)

Reliability of the PAEI

Reliability is the consistency, precision, and stability of scores on a test, or whether test scores would be essentially the same if the same test were re-administered (Gall et.al, 1996). The “Pearson product moment correlations were used to establish estimates, internal consistency and test-retest stability with individual response options, items, and overall scales” (Zinn, 1983, p. 150), which “showed a tendency toward moderately high stability of the instrument” (Zinn, 1983, p. 154). The Alpha coefficients on the five scales (behavioral, liberal, progressive, humanistic, and radical) ranged from .75 to .86. And ranges of (r of .48 to .83) deemed the instrument to have moderate-high reliability. There was an apparent positive correlation between internal consistency and test-retest reliability measures on overall scales (Zinn, 1983).

Principles of Adult Learning Scale (PALS)

The Principles of Adult Learning Scale (PALS) is a 44-item instrument that contains statements based on theoretical and general principles from adult education literature and have behavioral terms that are familiar to adult educators. The PALS’s purpose is to measure the frequency an educator practice one teaching style over another. The instrument can be completed in less than 15 minutes and is self-administered, self-reporting and self-scoring. Its scores reveal the tendency an educator has towards a learner-centered or teacher-center style. Educators may have a tendency to prefer one style to another, but may still practice components from both styles (Conti, 2004).

The inventory used contained twenty-two items that were positively stated and randomly located throughout the instrument. The PALS used had 44 items total. The inventory items were based upon and laden with theoretical, general and behavioral principles and language familiar to adult educators. The survey instrument asked participants to gauge how frequently she or he

practiced several different classroom activities. Six-point Likert-type scales with numerical values of 0-5 were assigned to the responses. The response categories were: Always = 0, Almost always = 1, Often = 2, Seldom = 3, Almost never = 4, Never = 5. The scores for all items are summed together, and the total value of the responses yield a score and the strength of the instructors support for a particular teaching style (Conti, 2004).

The PALS has an average score of 146, and score interpretation should be conducted based upon that average. Scores below 146 indicate a tendency towards a teacher-centered style and scores above 146 indicate a tendency towards a learner-centered teaching style (Conti, 1990). Scores tend to fall between 126 and 166, because the PALS has a standard deviation of 20, and an increased commitment particular teaching style can be interpreted by scores tending towards these numbers (Conti, 1990).

Validity of PALS

Full-time adult basic education teachers in the Illinois public school system field-tested the PALS instrument. Participants were asked to identify items that appeared to support collaborative education and those that did not. Participant total scores were used as criterion measures, for their support for the model, because the items on the instrument were based upon literature that supported collaborative education models. Construct validity was determined using Pearson correlations by measuring relationships between scored and items for participants (Conti, 1985). The construct validity of the PALS was confirmed by two panels of adult education practitioners, in which seventy-eight percent agreed that the 44 item instrument was congruent with adult education literature and principles surrounding the collaborative model (Conti, 1985).

Confirmation of the criterion-related validity was made through a comparison of scores on the Flanders Interaction Analysis Categories (FIAC) and scores of the PALS. The FIAC consist of 10 categories of communication that are inclusive of all communication possibilities in a classroom environment; it is a system of coding spontaneous verbal communication and gives the ability to draw conclusions about the verbal classroom climate (Hopkins & Moore, 1993). The comparison was based upon the responsive actions and identification of imitation on items between the FIAC and PALS. The bivariate correlation between the two instruments' ratio score revealed a positive association of .79 for the teacher question ratio, .85 for the teacher response ratio, and .82 for the pupil initiation ratio (Conti, 1982, p. 139).

Reliability of PALS

In an effort to establish the reliability of the PALS, twenty-three adult basic educators participated in a test-rest method. The bivariate correlation yielded a reliability coefficient of .92 (Conti, 1982).

Procedures

In a cross-sectional survey design approach, the researcher collects data one-time, as compared to a longitudinal survey design approach; the researcher collects data over time (Gay & Airasian, 2000). According to Creswell (2002), "a cross-sectional study can examine current attitudes, beliefs, opinions or practices" (p. 398). The cross-sectional design approach was used in this study, since the goal of this study was to identify the current beliefs regarding adult education philosophy and the teaching style of workforce educators and entrepreneurship instructors. A one-time e-mailing began February 28 and concluded April 31, 2009.

One 75 question (15 questions, with five statement stems) and one 44-question survey instrument was developed. Rather than being presented on a single, lengthy web page, questions

were loaded into a survey designer and web links to the surveys were to be e-mailed to the perspective respondents. The inform and consent letter, survey directions were attached to the invitation email as Adobe PDF files and a web link to the surveys was embedded as a hyperlink into the invitation email.

Invitation letters, containing a link to the survey hosted on Survey Monkey, were e-mailed to each of the identified 30 entrepreneurship instructors. An additional 31 invitation letters were e-mailed to the vice presidents of instruction supervising the 31 educational facilities providing workforce education and training to the adults through the local technical colleges. The vice presidents of instruction were instructed to randomly distribute, through e-mail, the survey instruments among the 276 identified workforce education instructors. Secure Socket Layer (SSL) was used for transmitting information privately over the Internet, and is supported in all modern web browsers. SSL encryption was used for collecting and downloading data. Follow-up emails and phone calls were made one week after the initial invitation email. Nineteen responses were received from the 30 entrepreneurship instructors (63%), and forty-three responses were received from the 276 workforce education instructors (16%).

Variables

The independent treatment variable was the type of institution where the entrepreneurship training took place. Demographic data was collected for gender and length of employment, as well as length of experience working with adults. The training entities were coded and grouped according to the institution, organization or facility type and analyzed in SPSS.

The instructor's philosophical orientation toward teaching as identified by the PAEI was the dependent variable. The numerical score for each of the philosophies—liberal, progressive,

behavioral, humanistic, and radical—were entered according to the results of each survey instrument and attached to the appropriate training entity variable.

The PALS reported the teaching style the instructors tended to gravitate towards regardless of the curriculum content. Additionally, the instrument measured seven different and specific aspects of the teaching style. The 44 responses were totaled and the sum was compared against the established mean of 146 to indicate a preference for teacher or learner-centered styles. The questions for the seven factors were also totaled and the sum compared to the established means.

Data Analysis

To identify individual education philosophies and teaching styles among workforce educators and entrepreneurship instructors and to examine the relationships between the education philosophies and teaching styles of workforce educators and entrepreneurship instructors in Georgia, descriptive statistics were calculated for all variables. For quantitative variables, the mean, standard deviation, and minimum score, maximum score, and standard deviation were calculated and identified for the entire sample. Inferential statistics were used to determine statistically significant differences between philosophical orientations and teaching styles of the sample population. Graphical techniques, including histograms, scatter plots and bar graphs, also aided in the interpretation of data. Qualitative variables were summarized via the use of frequencies. All statistical procedures were performed at the $p \leq .05$ significance level.

Summary

Two survey instruments were e-mailed to 30 entrepreneurship instructors and 276 workforce educators in Georgia for a cross sectional survey study of philosophies and teaching styles. There was a sufficient return rate of the survey instruments. The number of

entrepreneurship instructors who provided data for this study was 19, or a 63.3% response rate. The number of workforce educators who provided data for this study was 43, or a 15.3% response rate. These return rates supplied enough survey sets for data analysis in this descriptive study.

CHAPTER IV. FINDINGS

Introduction

The purpose of this quantitative study was to identify individual education philosophies and teaching styles among workforce educators and entrepreneurship instructors and to examine the relationships between the educational philosophies and teaching styles of workforce educators and entrepreneurship instructors in Georgia. This chapter presents the results of the statistical analyses of the data collected to address the research questions. First, the research questions are reviewed. Second, a description of the population and sample is provided. Third, a presentation of the summary statistics for all variables under consideration in the study is also included. Finally, the research findings from the inferential statistical procedures are provided in order to test the research questions.

Review of the Research Questions

The research questions of this study are as follows:

1. What differences exist in philosophical orientations of workforce educators and entrepreneurship instructors within the State of Georgia?
2. What differences exist in teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia?
3. What relationship exists between the philosophical orientations and teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia?

Population and Sample

In order to address the research hypotheses, a solicitation to participate in two on-line surveys through Survey Monkey was made to the population of interest. The population of interest included entrepreneurship instructors employed in 25 incubator entrepreneurship education facilities offering entrepreneurship training to adults within the State of Georgia; and workforce educators employed among 40 facilities offering workforce education and training operating out of technical college facilities as well as 37 Focused Industry Training Programs across the state. Due to the large numbers of workforce educators, random sampling from this population was used. Specifically, the researcher solicited 30 entrepreneurship instructors and 276 workforce educators.

The number of entrepreneurship instructors who provided data for this study through the completion of the surveys was 19, which yielded a response rate of 63.3%. The number of workforce educators who provided data for this study through the completion of the surveys was 43, which yielded a response rate of 15.6%. The summarized demographics to follow pertain to the research sample used for this study ($n = 62$).

Table 1 provides a summary of the survey participants' gender and educational attainment. The results in Table 1 indicate that the study was composed of an equal number of males and females. The results also indicate that participants were most likely to have a master's degree (64.5%), although the study contained participants ranging from high school only to a doctorate degree.

Table 1

Gender and Educational Attainment of Research Sample

Demographic	Frequency	Percent
Gender		
Male	31	50.0
Female	31	50.0
Education		
High school	3	4.8
Associates/technical	4	6.5
Working on bachelors	1	1.6
Bachelors	6	9.7
Masters	40	64.5
Specialist	1	1.6
Doctoral candidate	1	1.6
Doctorate	5	8.1
Work experience	1	1.6

The participants' length of employment, length of experience in training others and length of experience in workforce education is summarized in Table 2. The results in Table 2 indicate that the number of years on the current job, number of training others and number of years in workforce education varied widely from less than one year to well over 25 years. The mean number of years at the current job was 9.55, the mean number of years in training others was 16.71 and finally the mean number of years in workforce education was 13.18 years.

Table 2

Years of Employment, Training Others and Workforce Education

Source	Minimum	Maximum	Mean	Std. deviation
Years at current job	0.50	28.00	9.55	7.47
Years in training others	0.00	52.00	16.71	12.46
Years in workforce education	0.00	45.00	13.18	11.05

$N = 62.$

Summary Statistics

All of the survey data were scored and analyzed using SPSS, Version 16.0. However, prior to computing the philosophical orientation scores and the teaching style scores, a reliability analysis was conducted for both surveys using Cronbach's alpha. The reliability coefficients are presented in Table 3 and indicate that the internal reliability of both surveys was very high (alpha = .99).

Table 3

Cronbach's Alpha for Research Surveys

Source	No. of items	alpha
Philosophy of Adult Education Inventory	75	0.985
Principles of Adult Learning Scale	44	0.987

Due to the scaled nature of the outcome variables in this study, descriptive statistics such as means and standard deviations were computed for the sample in aggregate. In addition, histograms were constructed for each philosophical orientation and each teaching style outcome in order to illustrate the shape of the distributions and to determine the amount of variability

along the x-axis for each research variable. Since this study has a correlation component, it is critical that the overall sample yields at least a moderate amount of variability along the x-axis for each outcome so that the true magnitude of the relationships may be detected.

The descriptive statistics for the philosophical orientations are provided in Table 4. The minimum score possible for each orientation was 15 and the maximum score possible for each orientation was 105. The results in Table 4 indicate that the range of values for all five orientations was wide. On average, participants scored highest on the Progressive orientation (67.68) followed by the Behaviorist orientation (67.19). Conversely, on average, participants scored lowest on the humanistic orientation (59.47) followed by the radical orientation (60.45).

Table 4

Descriptive Statistics: Philosophical Orientation Orientations

Source	N	Minimum	Maximum	Mean	Std. deviation
Liberal orientation	62	15	90	63.39	12.54
Behaviorist orientation	62	18	97	67.19	16.45
Progressive orientation	62	20	96	67.68	17.50
Humanistic orientation	62	14	85	59.47	13.04
Radical orientation	62	23	90	60.45	14.13

According to Zinn (1994), scores between 95 and 105 indicate strong agreement of the philosophy orientation while scores between 15 and 25 indicate strong disagreement with the philosophy orientation. Furthermore, scores between 55 and 65 indicate neutrality with regard to the philosophical orientation. Therefore, since the means scores for the participants in this study tended to be between 55 and 65, the participants in this study tended to have neutral

philosophical orientations and therefore were not likely to have extreme agreement or disagreement with the philosophical orientations.

The distribution of scores for the liberal orientation is presented in Figure 1. The histogram in Figure 1 indicates that there was a very high peak around a score range of approximately 52 to 60. The distribution was also negatively skewed with a few extreme scores on the low end of the scale. Finally, although most of the scores fell towards the middle and upper end of the scale, some participants had scores that fell towards the bottom of the scale.

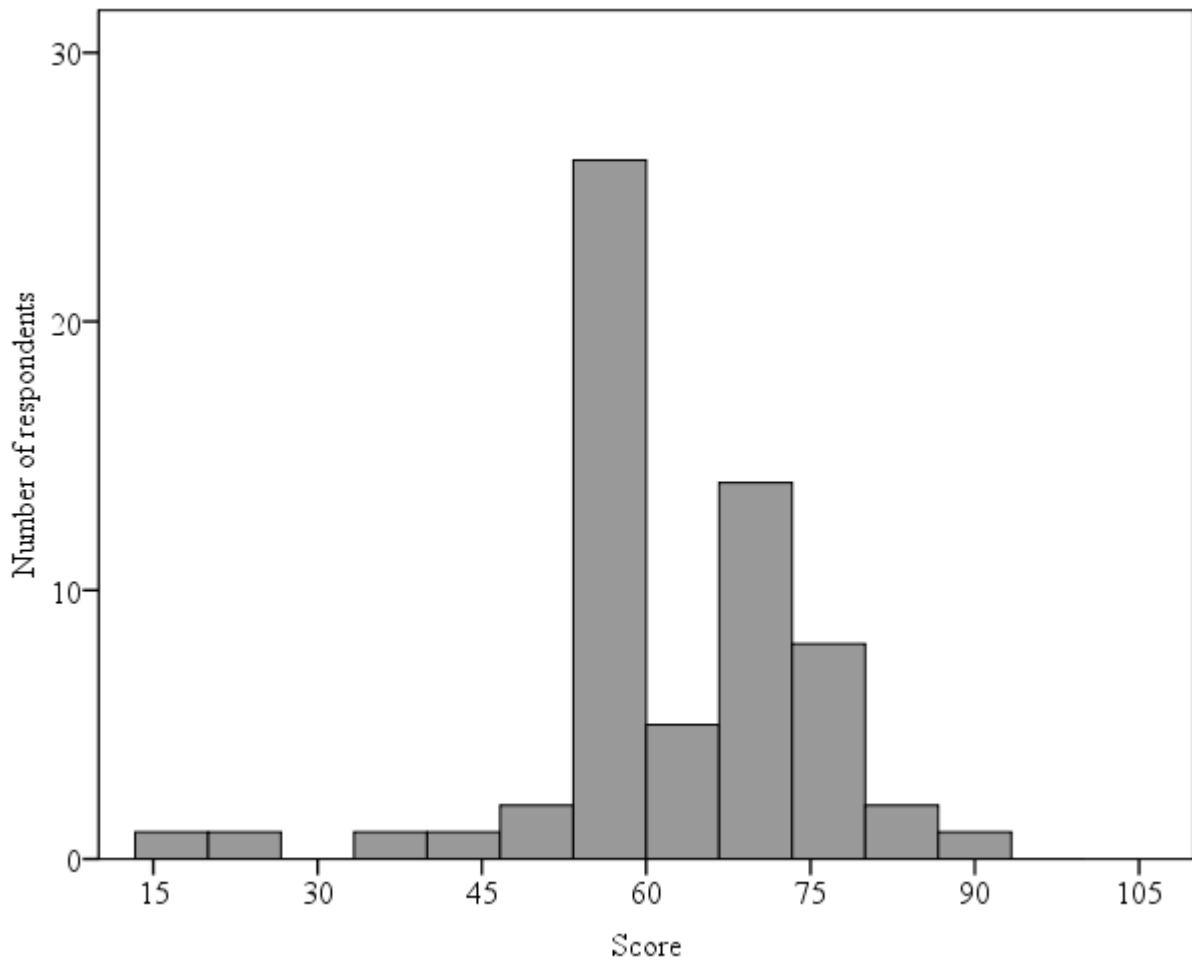


Figure 1. Liberal Adult Education Philosophical Orientation.

The distribution of scores for the behaviorist orientation is presented in Figure 2. The histogram in Figure 2 indicates that a high peak formed around a score range of approximately 52 to 60. Also, the range of values spanned across almost the entire scale. Finally, although most of the scores fell above 50, several participants had scores that fell towards the bottom of the scale.

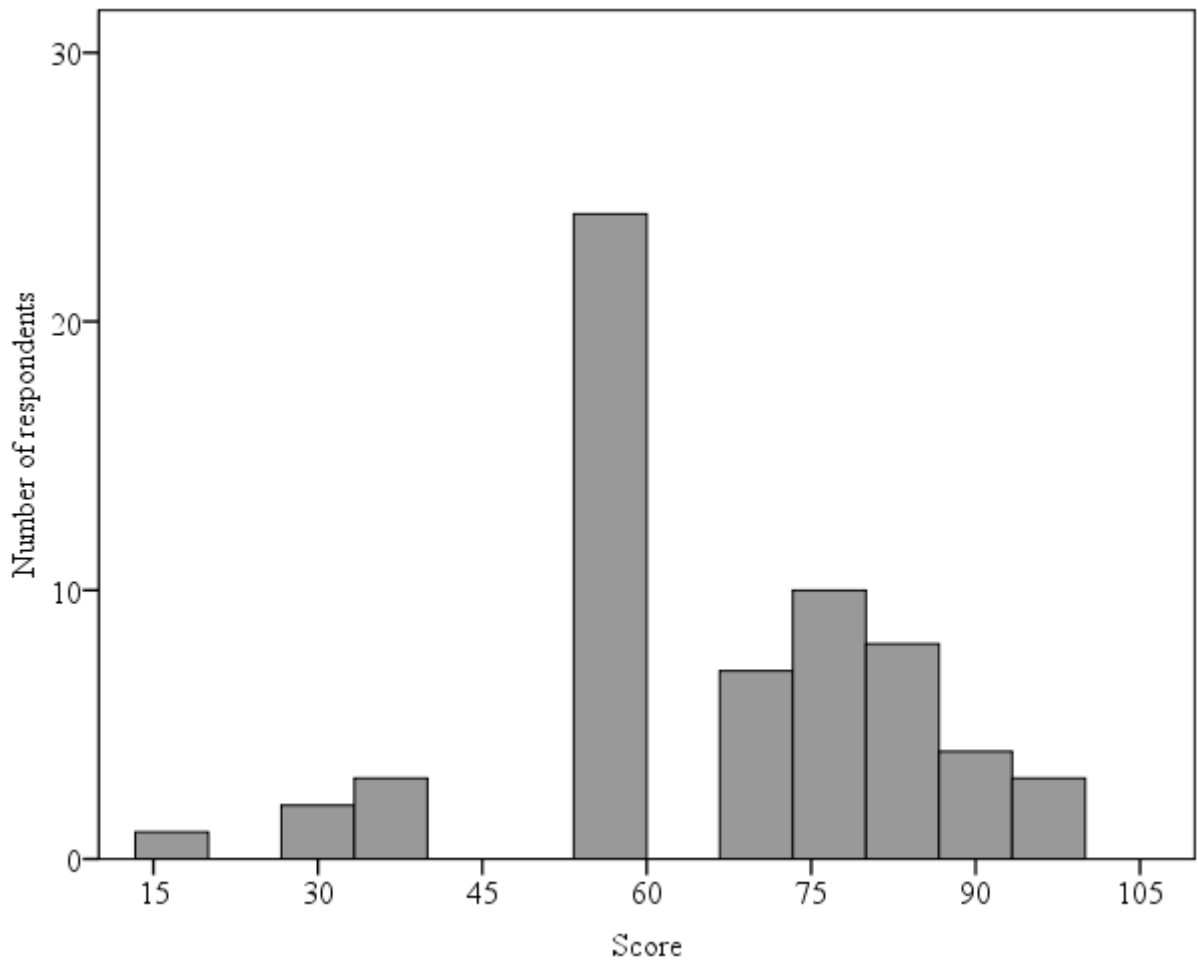


Figure 2. Behaviorist Adult Education Philosophical Orientation.

Figure 3 displays the distribution of scores for the progressive orientation. The histogram in Figure 3 indicates that the distribution was heavily negatively skewed with a very high peak around an approximate score range of 60 to 68. Although the majority of the scale was utilized, participants tended to have scores that fell in the middle to upper end of the scale.

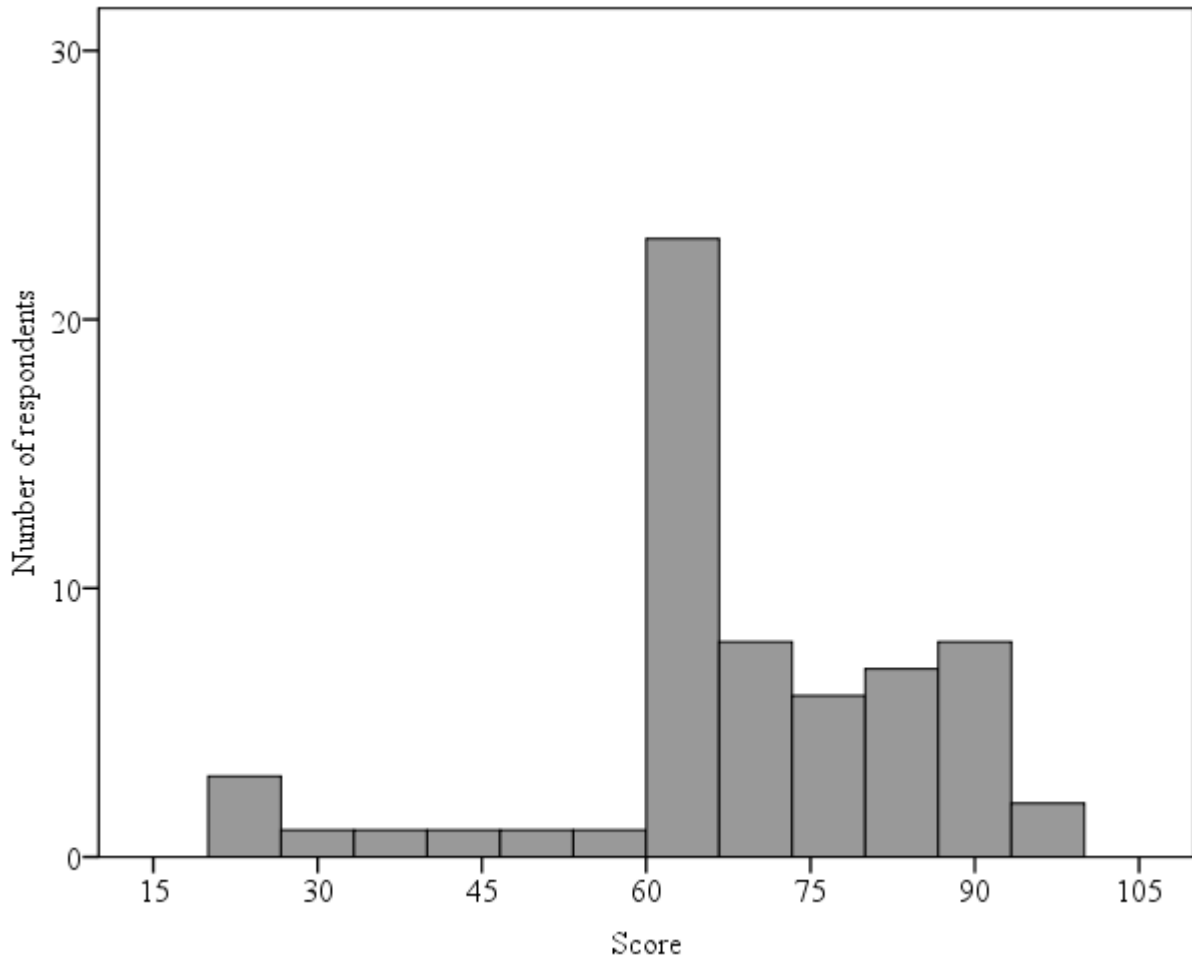


Figure 3. Progressive Adult Education Philosophical Orientation.

The distribution of scores for the humanistic orientation is presented in Figure 4. The histogram in Figure 4 indicates that a high peak formed around a score range of approximately 52 to 60. Also, the distribution was negatively skewed with no participants falling at the highest end of the scale. In general, the number of participants was fairly evenly split between the lower half of the scale and the upper half of the scale; although some participants' scores fell at the very bottom of the scale while none of the participants' scores fell at the very top of the scale.

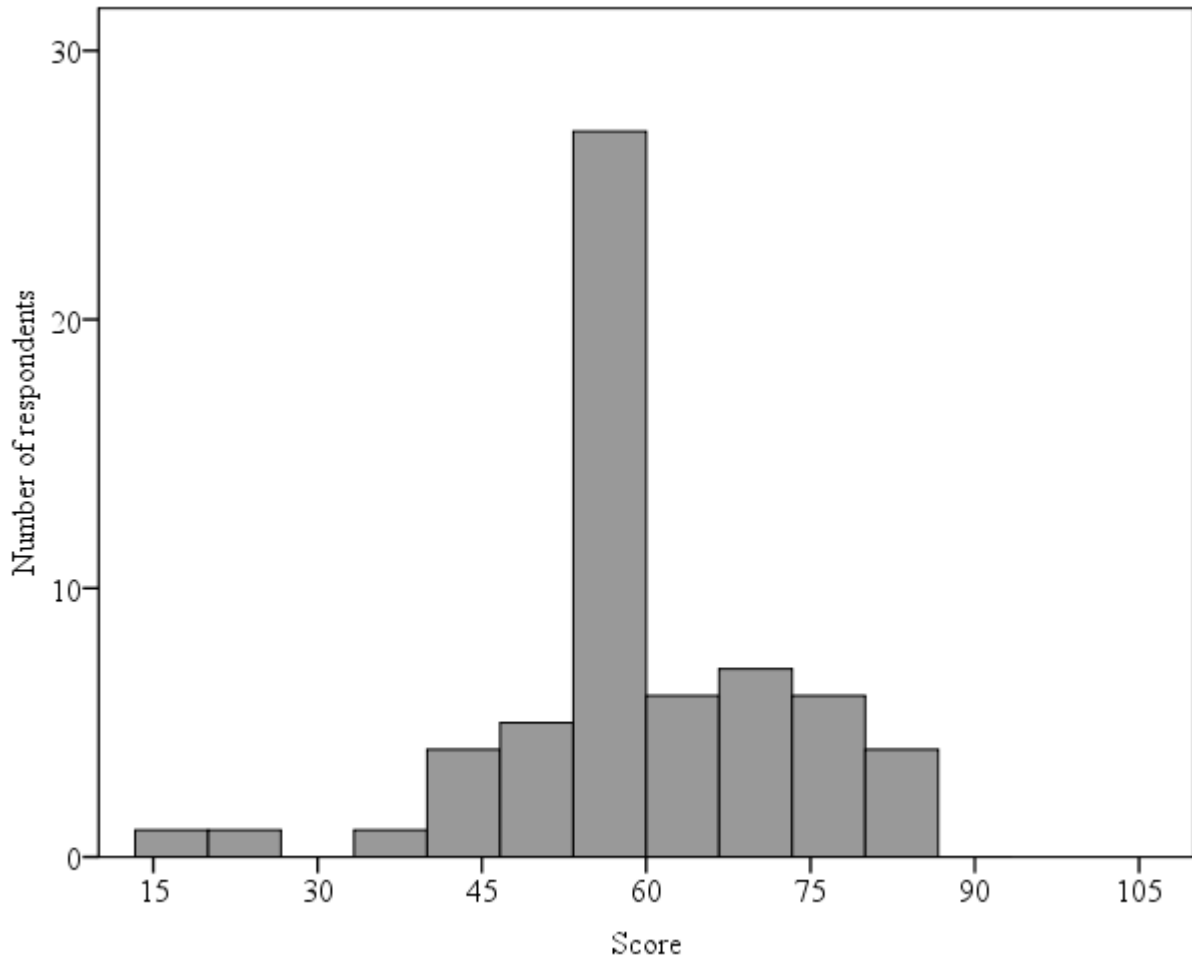


Figure 4. Humanistic Adult Education Philosophical Orientation.

Finally, the distribution of scores for the radical orientation is provided in Figure 5. The histogram in Figure 5 indicates that the scores were fairly evenly split above and below the center of the scale with a very high peak around an approximate score range of 60 to 65. Also, although the range of scores was wide, none of the participants scored at the lowest or highest end of the scale.

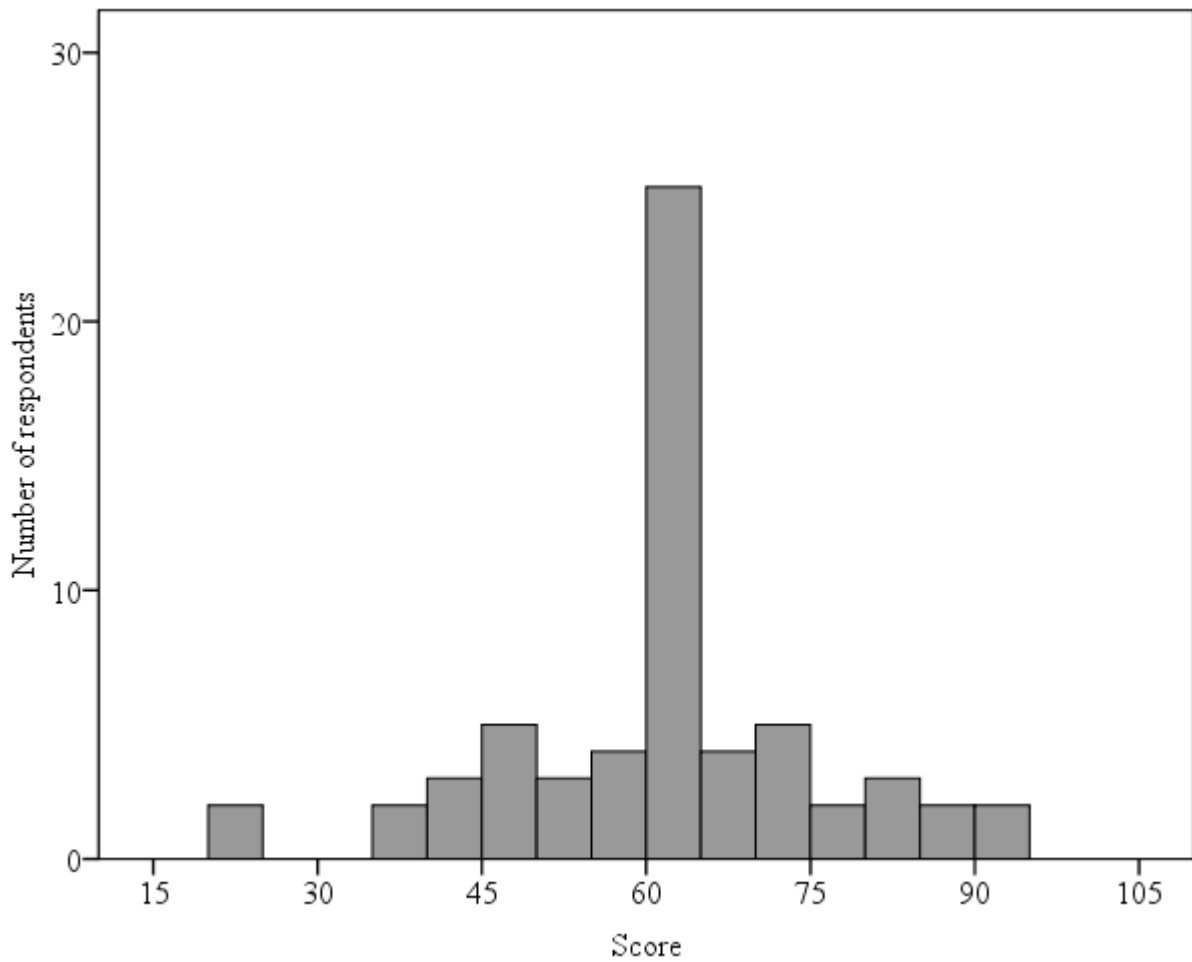


Figure 5. Radical Adult Education Philosophical Orientation.

The descriptive results for the teaching style outcomes are provided in Table 5. The lowest possible score for the overall scale was zero while the highest possible score was 220. For the individual factors, the lowest possible score was zero and the highest possible score depended on the factor, since the total number of items per factor was not the same.

Table 5

Descriptive Statistics: Principles of Adult Learning Scale

Source	<i>N</i>	Minimum	Maximum	Mean	Std. deviation
Total score	62	60	220	132.17	62.03
Learner-centered activities	62	19	60	44.50	11.90
Personalizing instruction	62	5	45	24.19	14.82
Relating to experience	62	1	30	15.85	10.53
Assessing student needs	62	1	20	10.98	6.78
Climate building	62	3	20	11.46	6.27
Participate in learning process	62	1	20	9.97	7.22
Flexible: personal development	62	4	25	15.23	7.25

According to the scoring instructions (Conti, 1990), the average total teaching styles score for the PALS is 146. Scores above 146 indicate a tendency towards a learner-centered style while scores below 146 indicate teacher-centered styled. The results in Table 5 indicate that on average, the sample in this study had a tendency to be teacher-centered (132.17). However, the range of values was wide indicating that some of the teachers were highly learner-centered while others were highly teacher-centered.

The mean for the learning-centered activities was 44.50 out of a possible score range of zero to 60, since the factor is comprised of 12 items based on a scale of zero to five. Therefore the participants in this study tended to provide learner-centered activities. However the range of scores was wide indicating that there were some educators in the study who provide learner-centered activities regularly and other educators who rarely provide learner-centered activities.

The mean for personalizing instruction was 24.29 out of a possible score range of zero to 45. Therefore participants scored somewhere near the middle of the scale on average. However, the range of scores was wide indicating that there were some educators in the study who personalize instruction regularly and others who rarely personalize instruction.

The mean for relating to experience was 15.85 out of a possible score range of zero to 30. Therefore participants scored near the middle of the scale on average. However, the range of scores was wide indicating that there were some educators in the study who regularly relate to learners' experiences and some that rarely (if ever) relate to learners' experiences.

The mean for assessing student needs was 10.98 out of a possible score range of zero to 20. Therefore participants scored near the middle of the scale on average. However, the range of scores was wide indicating that there were some educators in the study who regularly assess student needs and some that rarely (if ever) assess student needs.

The mean for climate building was 11.46 out of a possible score range of zero to 20. Therefore participants scored near the middle of the scale on average, although slightly closer to the higher end of the scale than the lower end of the scale. Also, the score range was wide indicating that some educators in the study regularly focus on climate building while other educators rarely focus on climate building.

The mean for participation in the learning process was 9.97 out of a possible score range of zero to 20. Therefore participants scored near the middle of the scale on average. However, the range of scores was wide indicating that some educators in this study regularly participate in the learning process while others rarely (if ever) participate in the learning process.

Finally, the mean for flexibility for personal development was 15.23 out of a possible score range of zero to 25. Therefore participants tended to score near the middle to the upper-

middle end of the scale. However, the wide range of scores in the sample indicates that while some educators regularly exercise flexibility for personal development, some educators rarely exercise flexibility with regard to personal development.

The distribution of scores for the total scale is presented in Figure 6. The histogram in Figure 6 indicates that a high peak emerged at the highest point of the scale while the majority of the scores fell between an approximate score range of 50 to 140. Also, none of the participants scored at the lowest end of the scale.

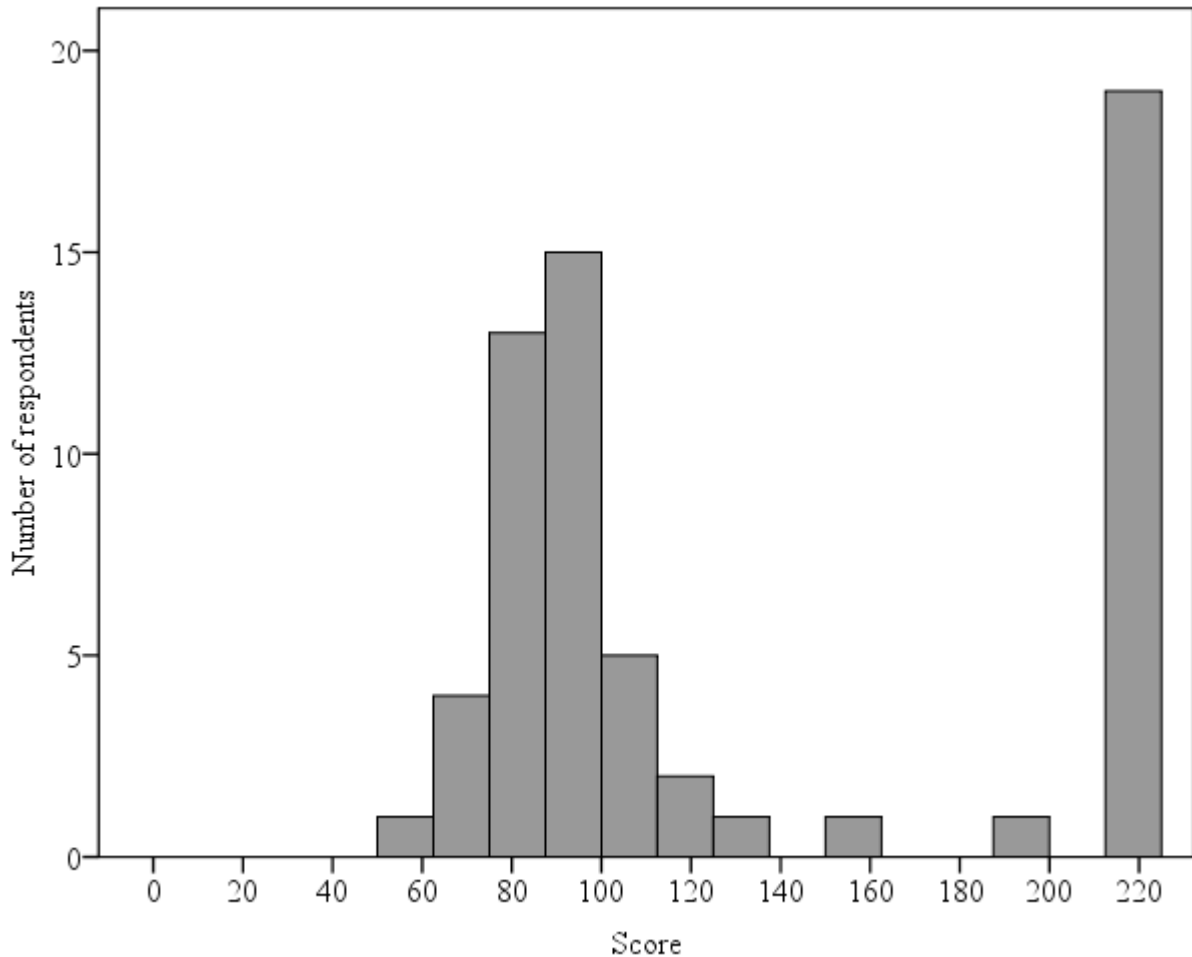


Figure 6. Total Principles of Adult Learning Scale Scores.

Figure 7 presents the distribution of scores for the learner-center activities factor. The histogram in Figure 7 indicates that a high peak emerged at the highest point of the scale while the remaining scores tended to fall between an approximate score range of 25 to 55. Also, none of the participants scored at the lowest end of the scale.

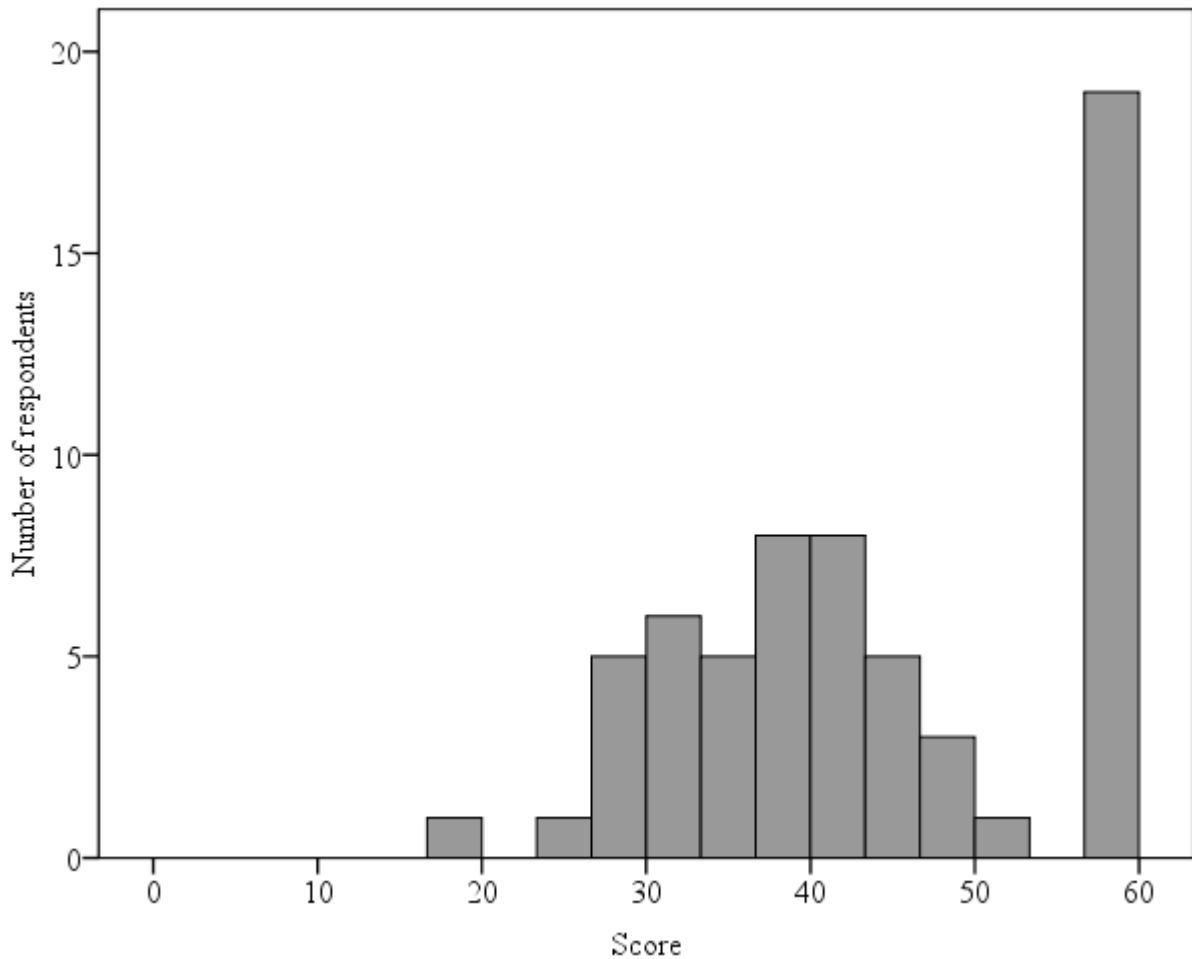


Figure 7. Learner-Centered Activities Factor Scale Scores.

The distribution of scores for the personalizing instruction factor is presented in Figure 8. The histogram in Figure 8 indicates that a high peak emerged at the highest point of the scale while the remaining scores tended to fall between an approximate score range of five to 25. Also, the majority of the scores fell in the lower half of the distribution therefore creating a division in teaching styles with scores tending to be below the midpoint of the scale or at the highest point of the scale with very few scores in between.

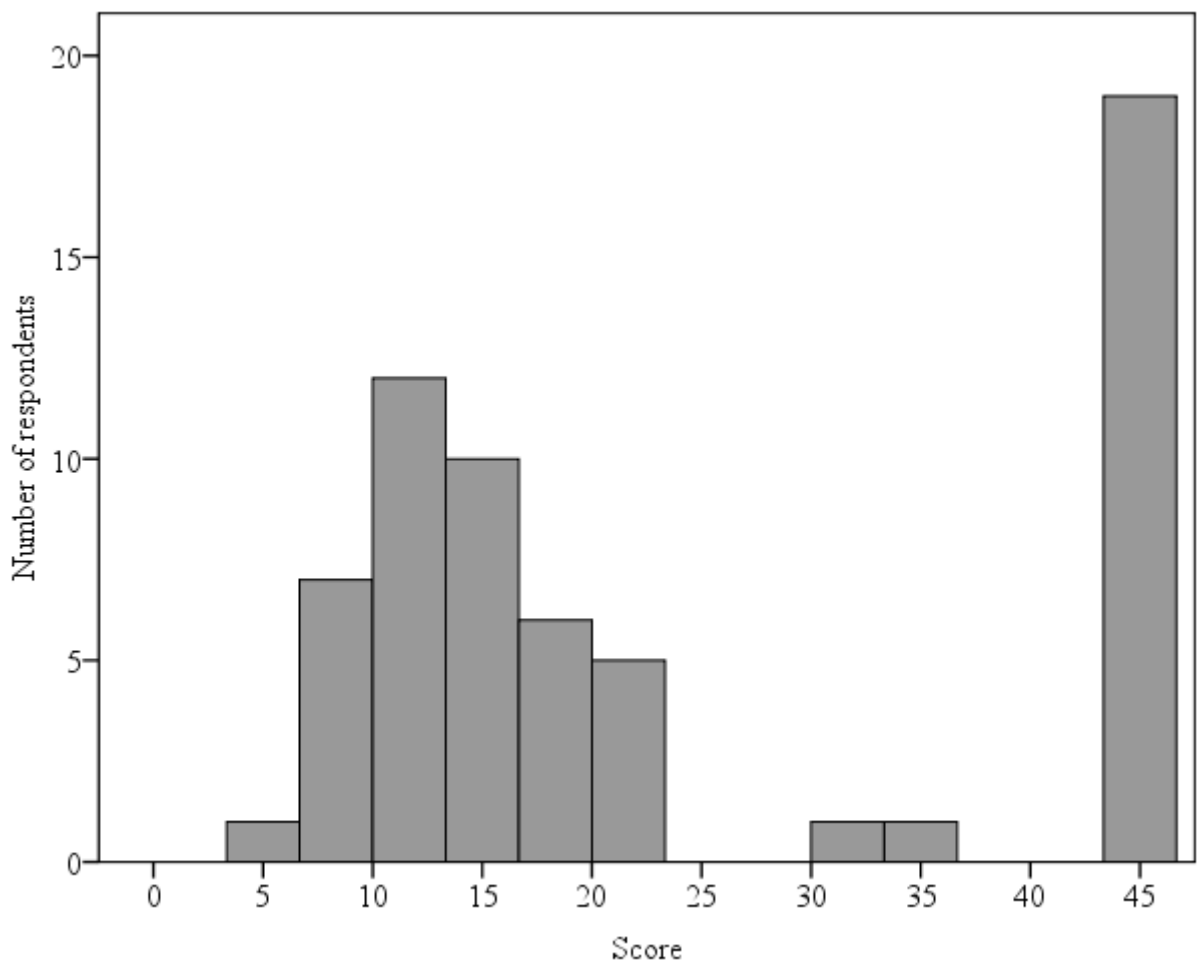


Figure 8. Personalizing Instruction Factor Scale Scores.

Figure 9 provides the distribution of scores for the relating to experience factor. The histogram in Figure 9 indicates that a high peak emerged at the highest point of the scale while the remaining scores tended to fall between an approximate score range of zero to 15. Also, the majority of the scores fell in the lower half of the distribution therefore creating a division in teaching styles in that scores tended to be either normally distributed below the midpoint of the scale or bunched up at the highest point of the scale.

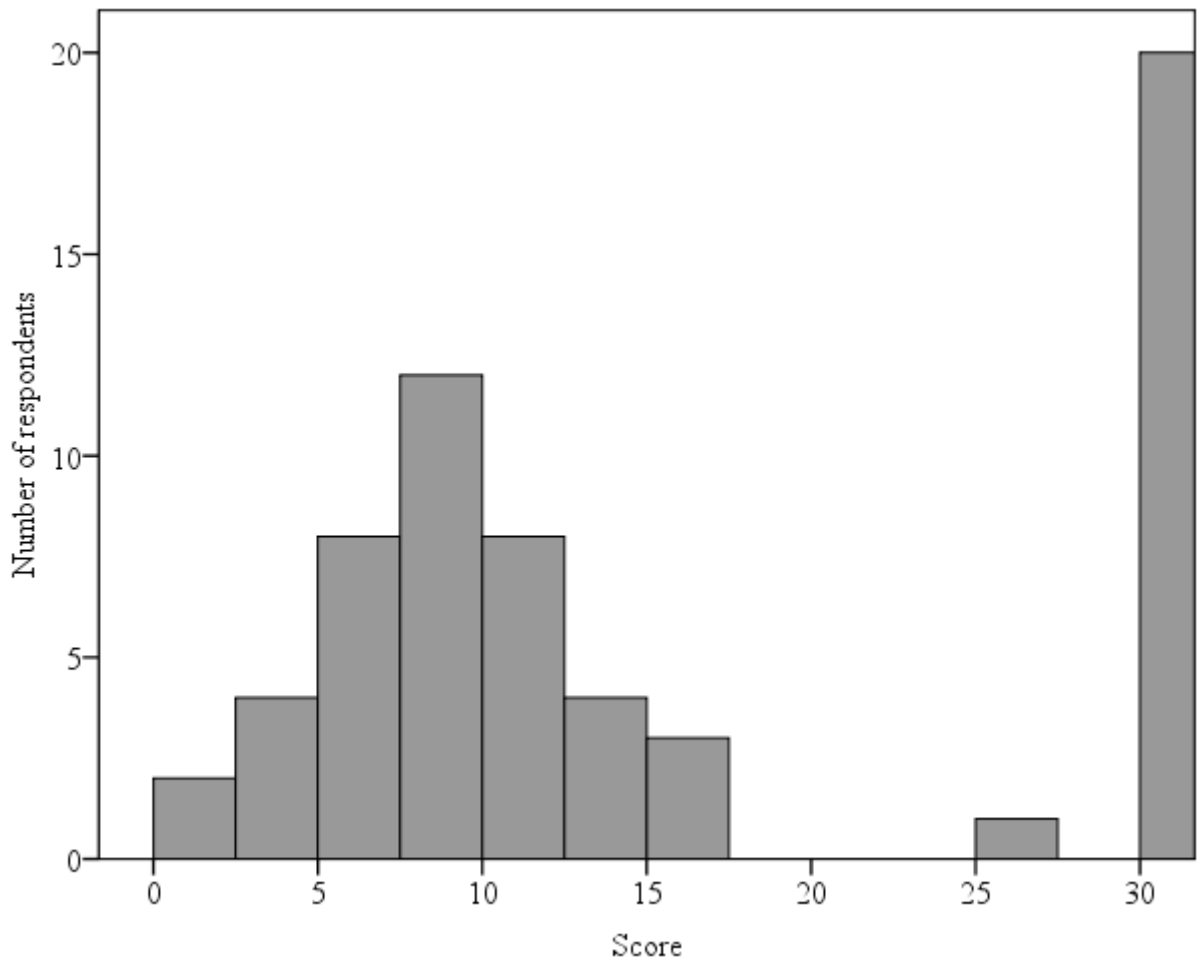


Figure 9. Relating to Experience Factor Scale Scores.

The distribution of scores for the assessing student needs factor is displayed in Figure 10. The histogram in Figure 10 also had a high peak of scores falling at the highest point of the scale with a large gap between those scores and the rest of the distribution. The remaining scores ranged from zero to approximately 13. Therefore participants were more likely to have scores below the midpoint of the scale than above the midpoint of the scale. However, when they scored above the midpoint, they tended to score at the highest point of the scale.

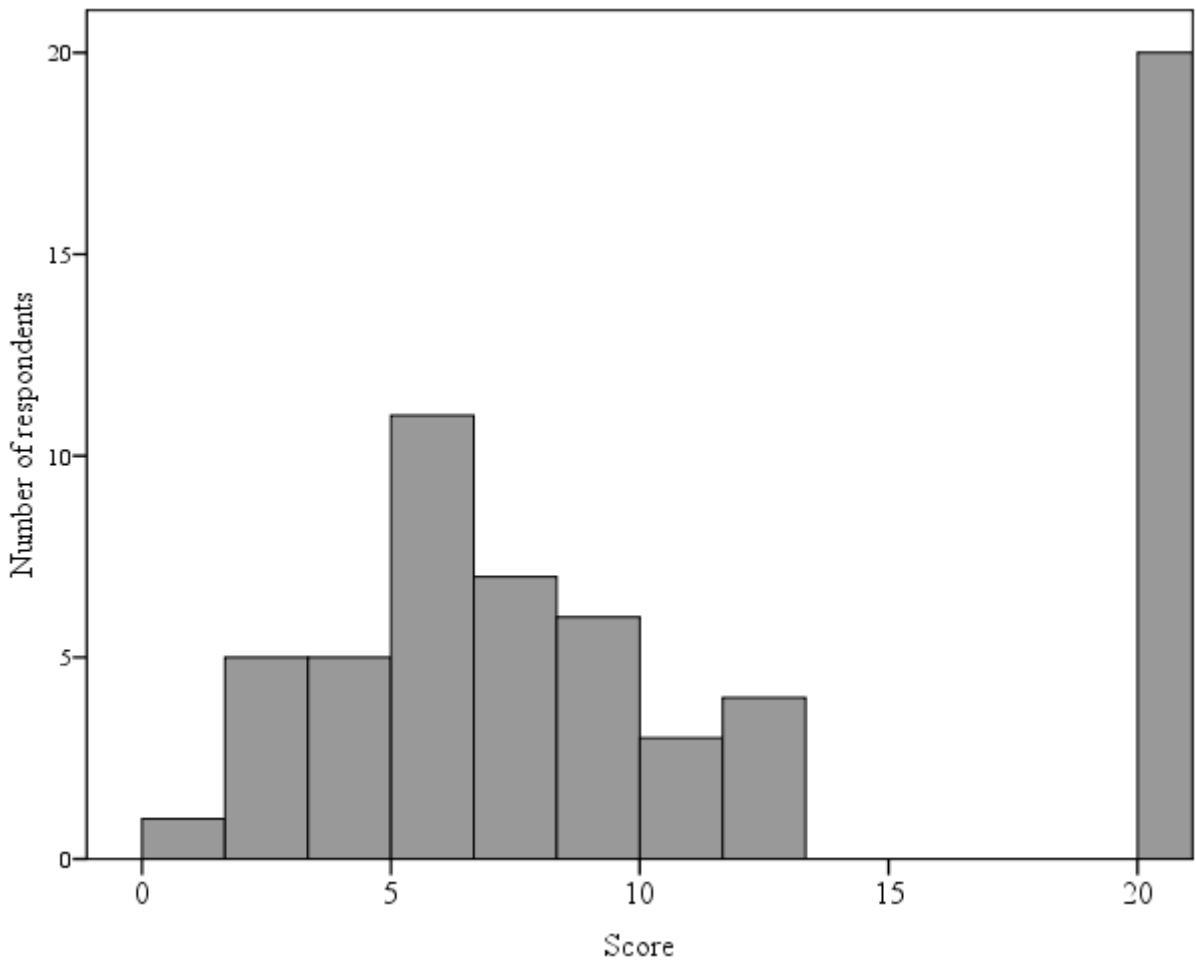


Figure 10. Assessing Student Needs Factor Scale Scores.

Figure 11 provides a visual depiction of the distribution of scores for the climate building factor. The histogram in Figure 11 indicates that the scores tended to peak at the highest point of the scale and then they peaked, although not as high, at an approximate score range of six to eight. Also, although participants were most likely to score at the highest point of the scale, the majority of the scores fell below the midpoint of the scale. Finally, none of the participants scored at the lowest point of the scale.

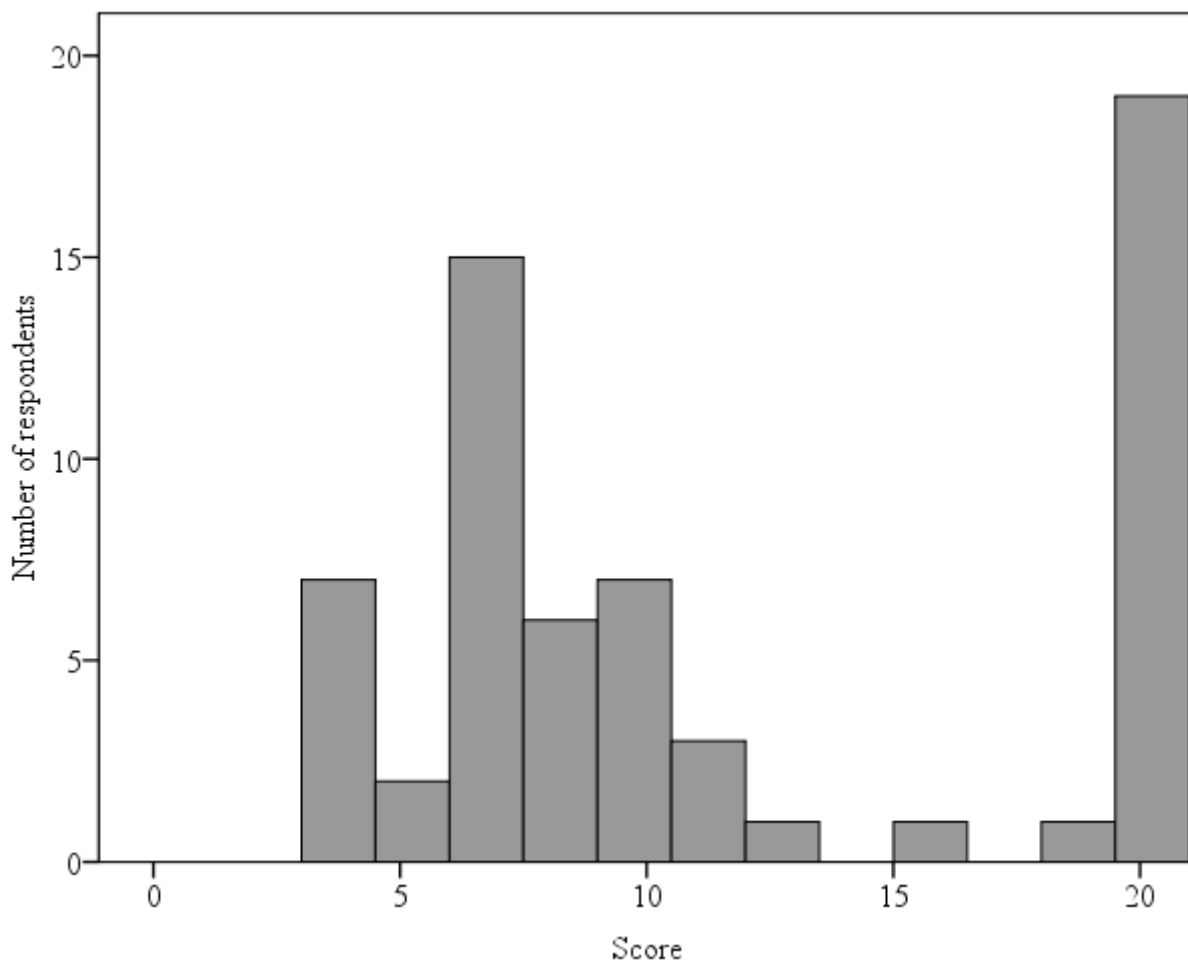


Figure 11. Climate Building Factor Scale Scores.

The distribution of scores for the participation in the learning process factor is presented in Figure 12. The histogram in Figure 12 indicates that the scores tended to peak at the highest point of the scale and then they peaked, although not as high, at an approximate score range of five to seven. Also, although participants were most likely to score at the highest point of the scale, the majority of the scores fell below the midpoint of the scale.

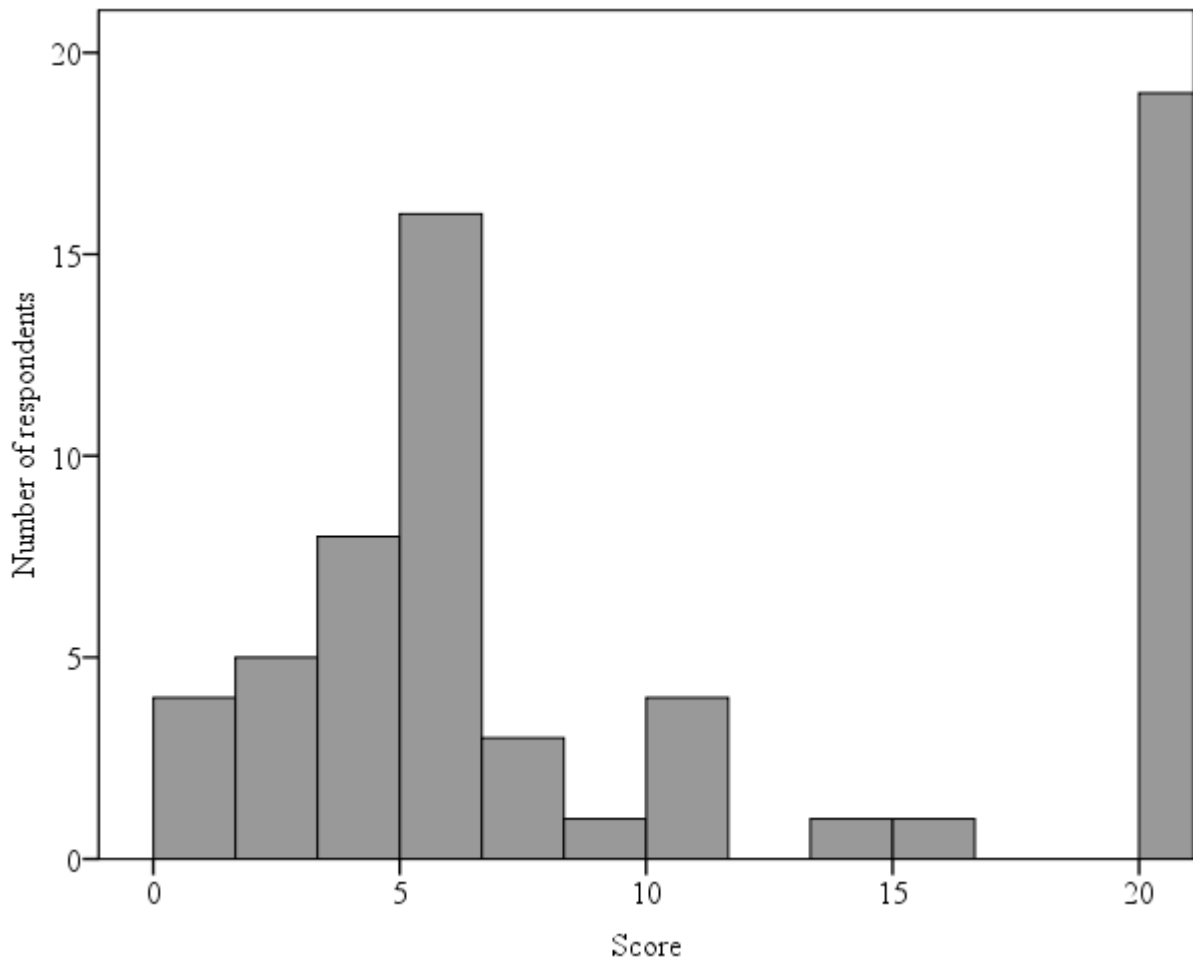


Figure 12. Participation in the Learning Process Factor Scale Scores.

Finally, the distribution of scores for the flexibility for personal development factor is presented in Figure 13. The histogram in Figure 13 indicates that the most common score was at the highest point of the scale with a very high peak at a score of 25. However, the majority of the scores fell at or below a score of 15. Also, none of the participants scored at the very bottom of the scale.

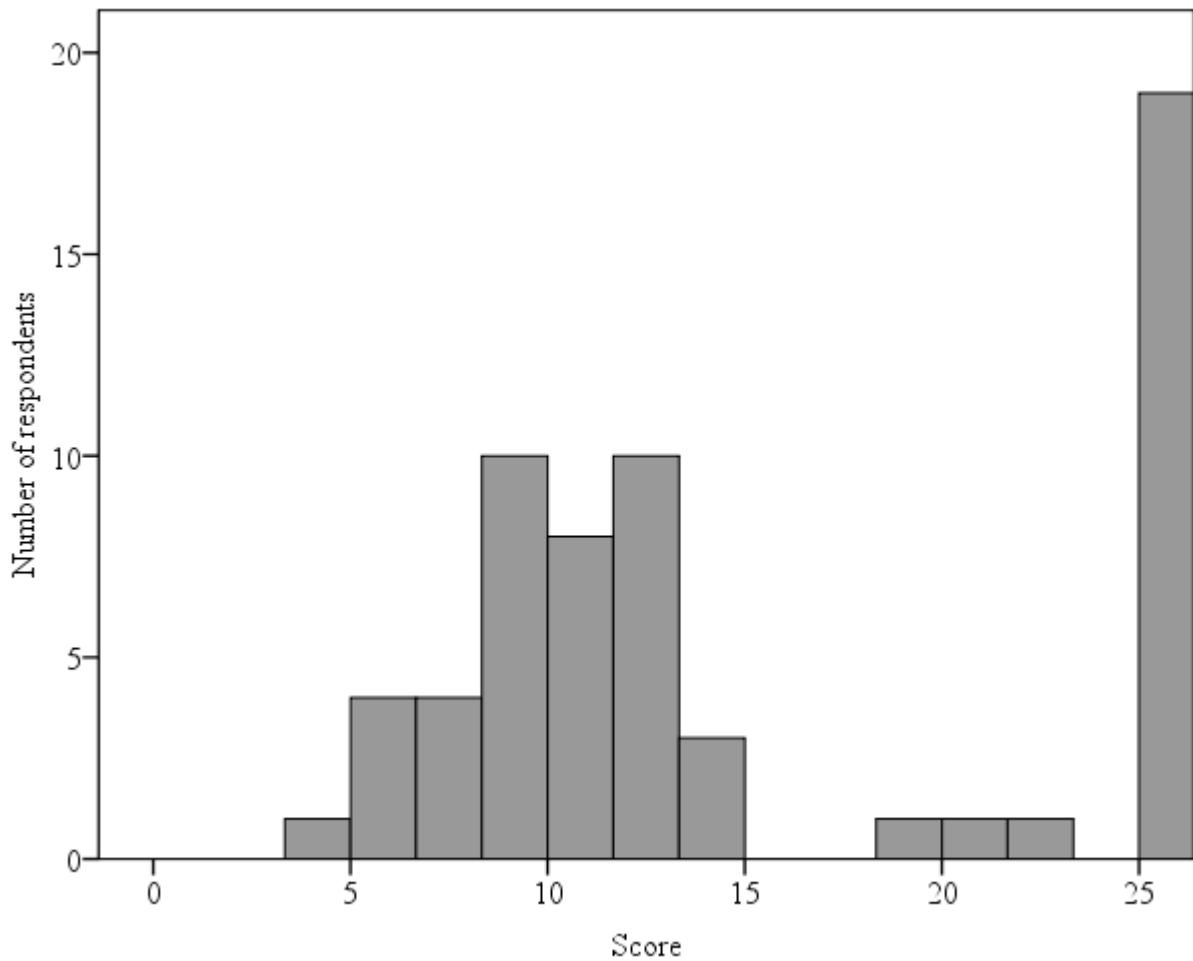


Figure 13. Flexibility for Personal Development Factor Scale Scores.

The descriptive results indicate that the participants in this sample were diverse with regard to their philosophical orientations as measured by the Philosophy of Adult Education

Inventory, and their teaching styles as measured by the Principles of Adult Learning Scale. With regard to philosophical orientations, participants tended to score around the middle of the distribution with only a few of the participants scoring at the extremes of the scale. With regard to the teaching style factors, participants tended to score at the lower end of the scale or at the highest point of the scale with a fewer number of participants scoring around the midpoint of the scale. Finally, for both sets of outcomes (philosophical orientations and teaching styles), the mean scores tended to reflect the middle of the scale.

Statistical Findings

This section of the chapter provides the results from the research hypothesis tests, which determine whether the null hypothesis should be rejected or retained. The alpha level used for this study was .05. Therefore significance values of .05 or less indicate a significant effect, which means that the null hypothesis should be rejected because the chance of committing a Type 1 error (rejecting the null hypothesis when it is true) is only 5% or less. Conversely, significance values greater than .05 indicate a lack of statistical significance and therefore we fail to reject the null due to the fact that the researcher cannot be at least 95% confident that a true difference or a true relationship (different from zero) exists in the overall population.

Research Hypothesis One

The first research hypothesis stated that a significant difference exists between workforce educators and entrepreneurship instructors within the State of Georgia with regard to philosophical orientation mean scores. Therefore independent samples *t*-tests were used to test this hypothesis. Specifically, the two groups of educators were compared on each of the five philosophical orientations.

One of the statistical assumptions of the independent samples *t*-test is that the two groups being compared have equal error variances (homogeneity or equality of error variances). In order to test for this statistical assumption, Levene's test of equality of error variances was conducted. The results of Levene's test indicate that a significant difference was found between the two groups with regard to the radical orientation ($p = .02$) and therefore the results based on equal errors not assumed were presented and discussed for that particular orientation.

Table 6 provides the descriptive statistics broken down by group. The results in Table 6 indicate that the workforce educators had higher mean scores across all five orientations with the largest discrepancy being for the behaviorist orientation (63.53 vs. 68.61). Conversely, the smallest difference was found relative to the liberal orientation (61.58 vs. 64.19).

Table 6

Philosophy Orientation Descriptive Statistics by Educator Type

Educator	Source	<i>N</i>	Mean	Std. deviation	Std. error
Entrepreneur	Liberal orientation	19	61.58	15.19	3.49
Workforce	Liberal orientation	43	64.19	11.29	1.72
Entrepreneur	Behaviorist orientation	19	63.53	18.29	4.20
Workforce	Behaviorist orientation	43	68.81	15.51	2.37
Entrepreneur	Progressive orientation	19	65.53	20.15	4.62
Workforce	Progressive orientation	43	68.63	16.37	2.50
Entrepreneur	Humanistic orientation	19	57.53	16.30	3.74
Workforce	Humanistic orientation	43	60.33	11.43	1.74
Entrepreneur	Radical orientation	19	57.79	19.12	4.39
Workforce	Radical orientation	43	61.63	11.35	1.73

Figure 14 shows the mean difference between the two groups of educators. Positive values indicate that the workforce educators had a higher mean score than did the entrepreneur educators. As previously stated, the largest discrepancy was found for the behaviorist orientation and the smallest discrepancy was found for the liberal orientation.

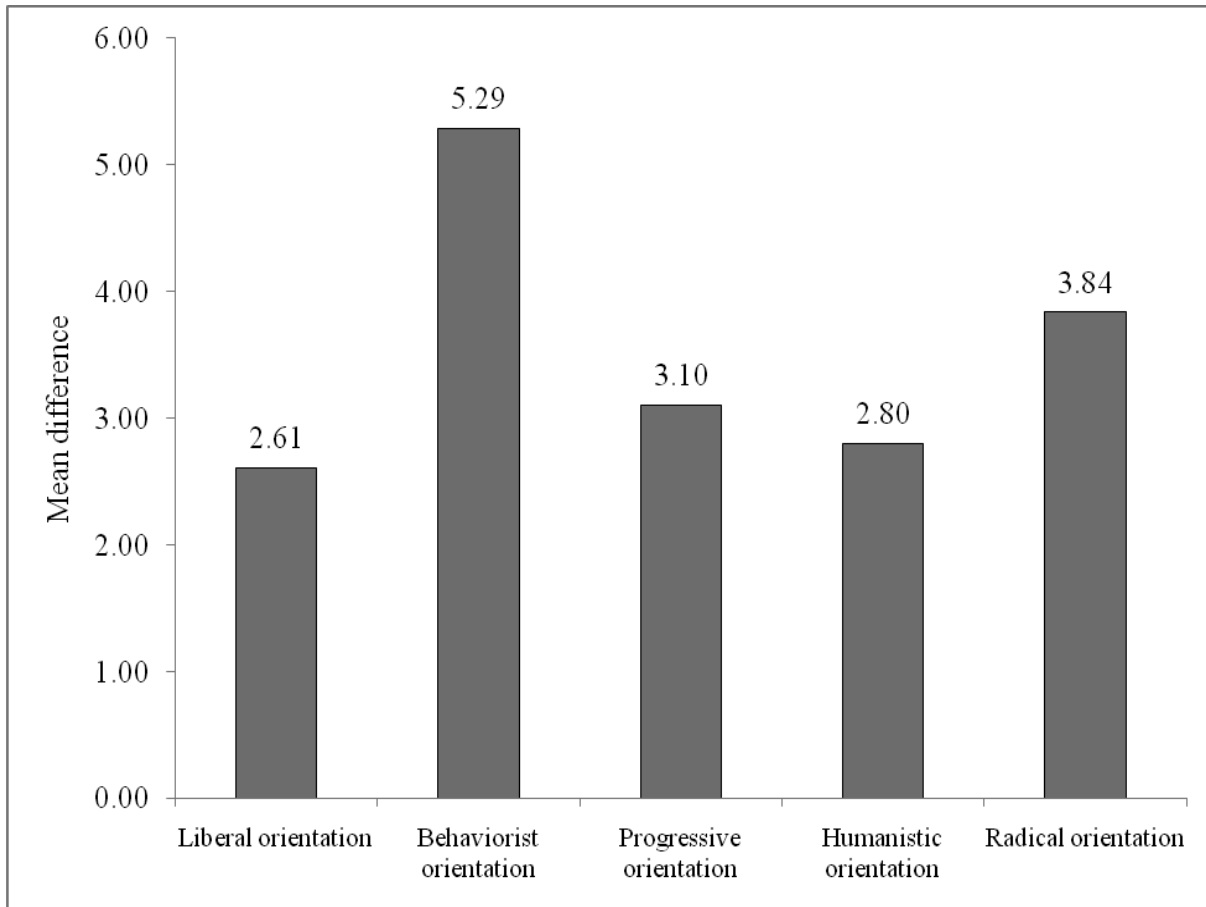


Figure 14. Mean Difference by Philosophical Orientation.

The results for the independent samples *t*-tests are presented in Table 7. The results in Table 7 indicate that although the workforce educators had higher mean scores than did the entrepreneur educators, no statistically significant differences were found with regard to the liberal orientation ($t = -0.75, p = .46, d = -.21$); the behaviorist orientation ($t = -1.17, p = .25, d = -$

.33); the progressive orientation ($t = -0.64, p = .52, d = -.18$); the humanistic orientation ($t = -0.78, p = .44, d = -.22$) or the radical orientation ($t = -0.81, p = .42, d = -.28$).

Table 7

Independent Samples t-Test Results: Philosophical Orientations

Source	t	df	p	95% confidence interval	
				Lower	Upper
Liberal orientation	-0.75	60.00	0.46	-9.54	4.33
Behaviorist orientation	-1.17	60.00	0.25	-14.32	3.75
Progressive orientation	-0.64	60.00	0.52	-12.79	6.59
Humanistic orientation	-0.78	60.00	0.44	-10.01	4.41
Radical orientation	-0.81	23.80	0.42	-13.57	5.90

The confidence intervals in Table 7 reflect the parameters in which the researcher can be 95% confident that the true mean difference in the overall population lies. For example, the confidence interval for the liberal orientation indicates that the researcher can be 95% confident that in the overall population, the workforce educator group has a mean liberal orientation score as much as 9.54 points higher than the entrepreneur group to as much as 4.33 points lower than the entrepreneur educator group. In fact, all of the confidence intervals in Table 7 indicate that either group could have the true higher mean in the overall population and therefore the differences found in this research study could be due to sampling error only, and not due to true differences in the overall population. Finally, the lower bound of the interval reflects a higher population mean for the workforce educator group while the upper bound of the interval reflects a higher population mean for the entrepreneur educator group.

The results for research hypothesis one indicate that since none of the comparisons reached statistical significance, the null hypothesis of no difference in the overall population between workforce educators and entrepreneur educators with regard to philosophical orientations was retained and the research hypothesis of a difference in the overall population was rejected.

Research Hypothesis Two

The second research hypothesis stated that a significant difference exists between workforce educators and entrepreneurship instructors within the State of Georgia with regard to teaching style mean scores. Therefore independent samples *t*-tests were used to test this hypothesis. Specifically, the two groups of educators were compared on their total teaching style mean scores as well as their seven teaching style factor mean scores.

Levene's test of equality of error variances was conducted to determine whether or not the two groups being compared have equal error variance. The results indicated that no violations were noted ($p > .05$). Therefore all of the findings are presented and discussed based on the results for equal variances assumed.

Table 8 provides the descriptive statistics broken down by group for the overall leadership scale score as well as for the individual factor scale scores. The results in Table 8 indicate that the entrepreneur educators had higher mean scores across the board. The largest discrepancy was found relative to the total teaching style score (144.69 vs. 126.64). The smallest discrepancy was found for flexibility for personal development (15.68 vs. 15.02).

Table 8

Teaching Style Descriptive Statistics by Educator Type

Educator	Source	N	Mean	Std. deviation	Std. error
Entrepreneur	Total score	19	144.68	57.65	13.23
Workforce	Total score	43	126.64	63.74	9.72
Entrepreneur	Learner-centered activities	19	46.95	9.80	2.25
Workforce	Learner-centered activities	43	43.42	12.68	1.93
Entrepreneur	Personalizing instruction	19	26.63	13.83	3.17
Workforce	Personalizing instruction	43	23.10	15.26	2.33
Entrepreneur	Relating to experience	19	18.00	9.74	2.23
Workforce	Relating to experience	43	14.90	10.83	1.65
Entrepreneur	Assessing student needs	19	12.68	6.20	1.42
Workforce	Assessing student needs	43	10.23	6.95	1.06
Entrepreneur	Climate building	19	12.63	5.92	1.36
Workforce	Climate building	43	10.94	6.42	0.98
Entrepreneur	Participate in learning process	19	12.11	6.60	1.51
Workforce	Participate in learning process	43	9.02	7.35	1.12
Entrepreneur	Flexible: personal development	19	15.68	7.33	1.68
Workforce	Flexible: personal development	43	15.02	7.29	1.11

The mean difference between the two groups for each teaching style factor is illustrated in Figure 15. Negative values indicate that the entrepreneur educators had a higher mean score than did the workforce educators. The results in Figure 15 provide a summary of the mean differences for each teaching style outcome. The results in Figure 15 indicate that most of the

mean differences were relatively small (less than four points). However, cumulatively the difference was somewhat large with a difference of 18.04 points, as previously indicated.

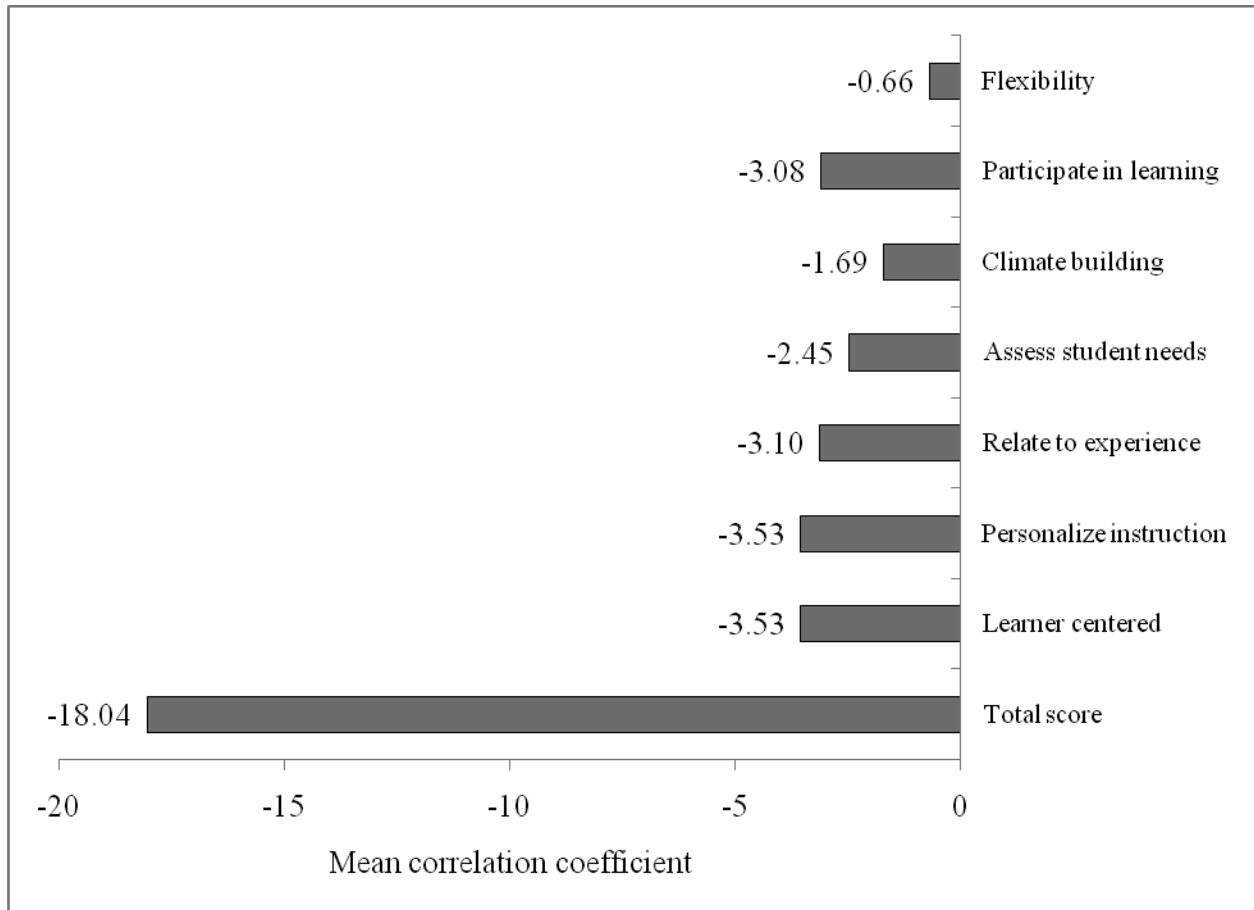


Figure 15. Mean Difference by Teaching Style.

The results for the independent samples *t*-tests are presented in Table 9. The results in Table 9 indicate that although the entrepreneur educators had higher mean scores than did the workforce educators, no significant differences were found with regard to total teaching style ($t = 1.06, p = .30, d = .30$); the learner-centered activities factor ($t = 1.08, p = .29, d = .30$); the personalizing instruction factor ($t = 0.86, p = .39, d = .24$); the relating to experience factor ($t = 1.07, p = .29, d = .30$); the assessing student needs factor ($t = 1.32, p = .19, d = .37$); the climate

building factor ($t = 0.98, p = .33, d = .27$); the participate in the learning process factor ($t = 1.57, p = .12, d = .44$) and the flexibility for personal development factor ($t = 0.33, p = .74, d = .09$).

Table 9

Independent Samples t-Test Results: Teaching Style

Source	t	df	p	95% confidence interval	
				Lower	Upper
Total score	1.06	60.00	0.30	-16.11	52.19
Learner-centered activities	1.08	60.00	0.29	-3.02	10.08
Personalizing instruction	0.86	60.00	0.39	-4.66	11.71
Relating to experience	1.07	60.00	0.29	-2.69	8.90
Assessing student needs	1.32	60.00	0.19	-1.26	6.16
Climate building	0.98	60.00	0.33	-1.77	5.15
Participate in learning process	1.57	60.00	0.12	-0.85	7.01
Flexible: personal development	0.33	60.00	0.74	-3.36	4.68

The confidence intervals in Table 9 reflect the parameters in which the researcher can be 95% confident that the true mean difference in the overall population lies. For example, the confidence interval for the total learning style score indicates that the researcher can be 95% confident that in the overall population, the workforce educator group has a mean total score as much as 16.11 points higher than the entrepreneur educator group to as much as 52.19 points lower than the entrepreneur educator group. In fact, all of the confidence intervals in Table 9 indicate that either group could have the true higher mean in the overall population and therefore the differences found in this research study could be due to sampling error only, and not due to true differences in the overall population. Finally, the lower bound of the interval reflects a

higher population mean for the workforce educator group while the upper bound of the interval reflects a higher population mean for the entrepreneur educator group.

The results for research hypothesis two indicate that since none of the comparisons reached statistical significance, the null hypothesis of no difference in the overall population between workforce educators and entrepreneur educators with regard to teaching styles was retained and the research hypothesis of a difference in the overall population was rejected.

Research Hypothesis Three

The third and final research hypothesis stated that a relationship exists between the philosophical orientations and teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia. In order to test this research hypothesis, Pearson correlation was used whereby each philosophical orientation was correlated with each teaching style factor for all participants in the study.

The statistical conclusion validity of the Pearson correlation coefficients is based on the researchers' ability to obtain data that has a sufficient amount of variability in order to have the statistical power to identify the true magnitude of the relationship between the variables. The participants' responses in this study were found to be diverse and therefore philosophical orientations and teaching styles varied across the scales and therefore variability in the responses has been obtained. In addition, the statistical conclusion validity of Pearson correlation depends on the statistical assumption that the relationships being tested are linear. Therefore, in order to ensure the appropriateness of the use of Pearson correlation, scatter plots were constructed in order to demonstrate the linearity of the relationships.

Due to the large number of correlations being tested, the scatter plots were constructed between each of the philosophical orientations and the total teaching style scores. If the

relationship between the philosophical orientations and the total teaching style scores are linear, then the relationship between the teaching style factors and the philosophical orientations should also be linear.

The scatter plot showing the relationship between the total teaching style score and the liberal orientation is shown in Figure 16. The data in the scatter plot form a linear pattern in that the line of best fit through the center of the data points is a straight line ($r = -.32$). Therefore linearity has been established for the relationship between teaching style and the liberal orientation.

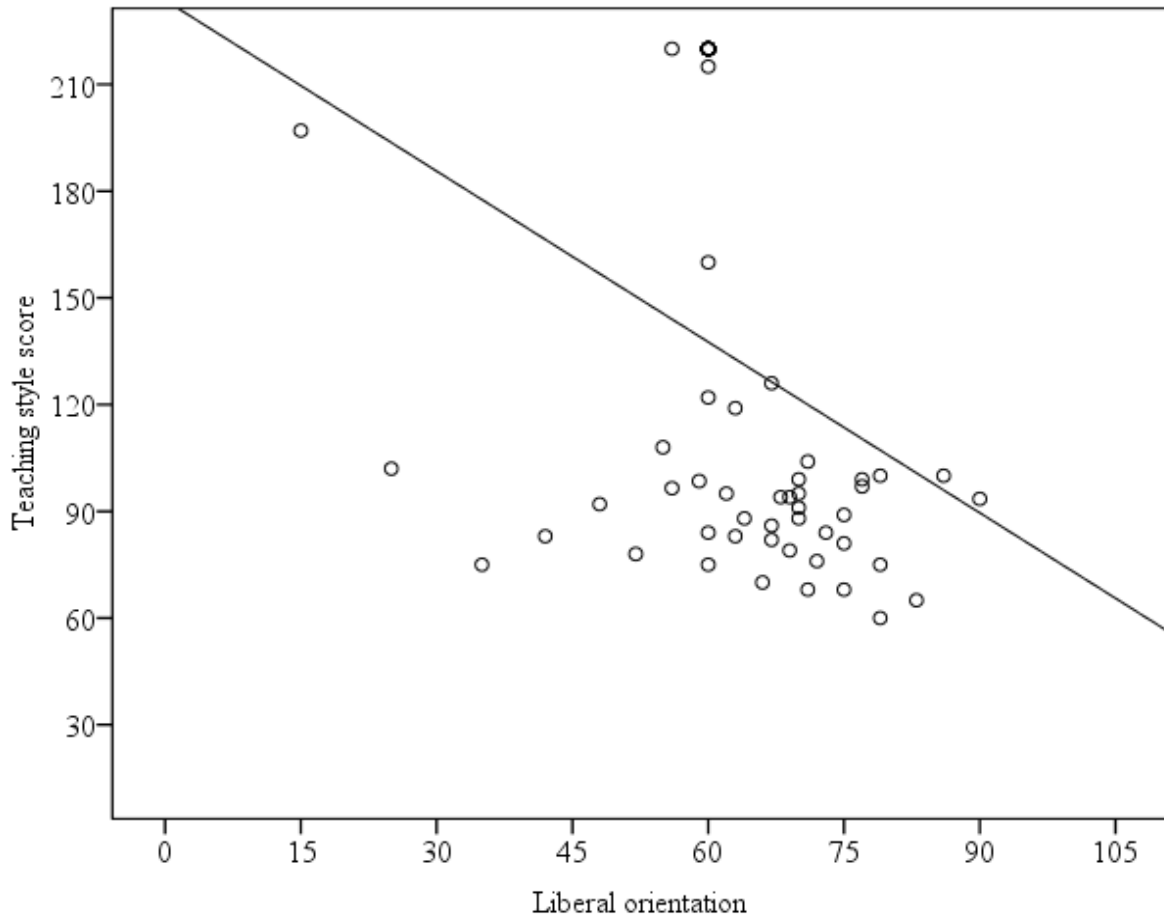


Figure 16. Scatter Plot: Liberal Orientation and Total Teaching Style.

Figure 17 illustrates the pattern of the data when examining the relationship between the behaviorist orientation and teaching style. The scatter plot in Figure 17 indicates that the data form a linear pattern in that the line of best fit through the center of the data points is a straight line ($r = -.39$). Therefore linearity has been established for the relationship between teaching style and the behaviorist orientation.

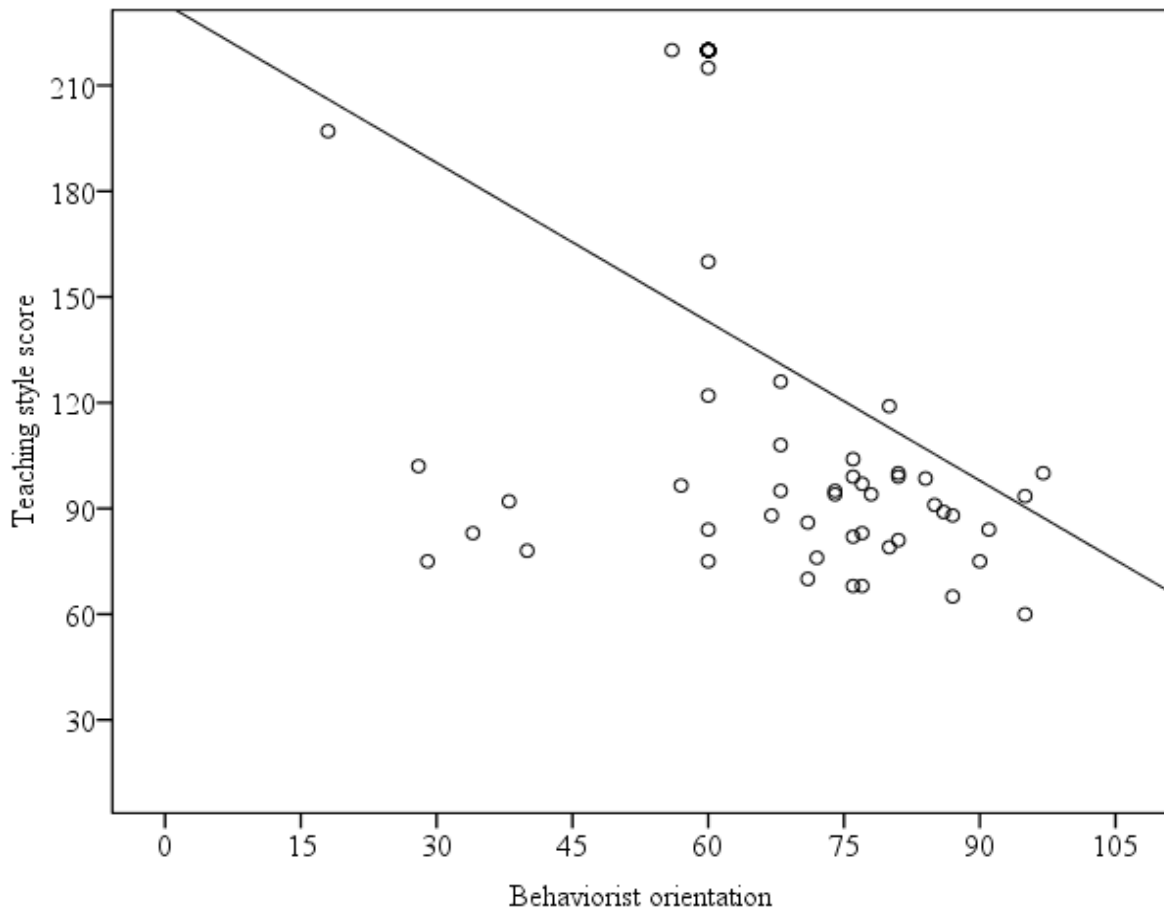


Figure 17. Scatter Plot: Behaviorist Orientation and Total Teaching Style.

Figure 18 illustrates the pattern of the data when examining the relationship between the progressive orientation and teaching style. The scatter plot in Figure 18 indicates that the data

form a linear pattern in that the line of best fit through the center of the data points is a straight line ($r = -.36$). Therefore linearity has been established for the relationship between teaching style and the progressive orientation.

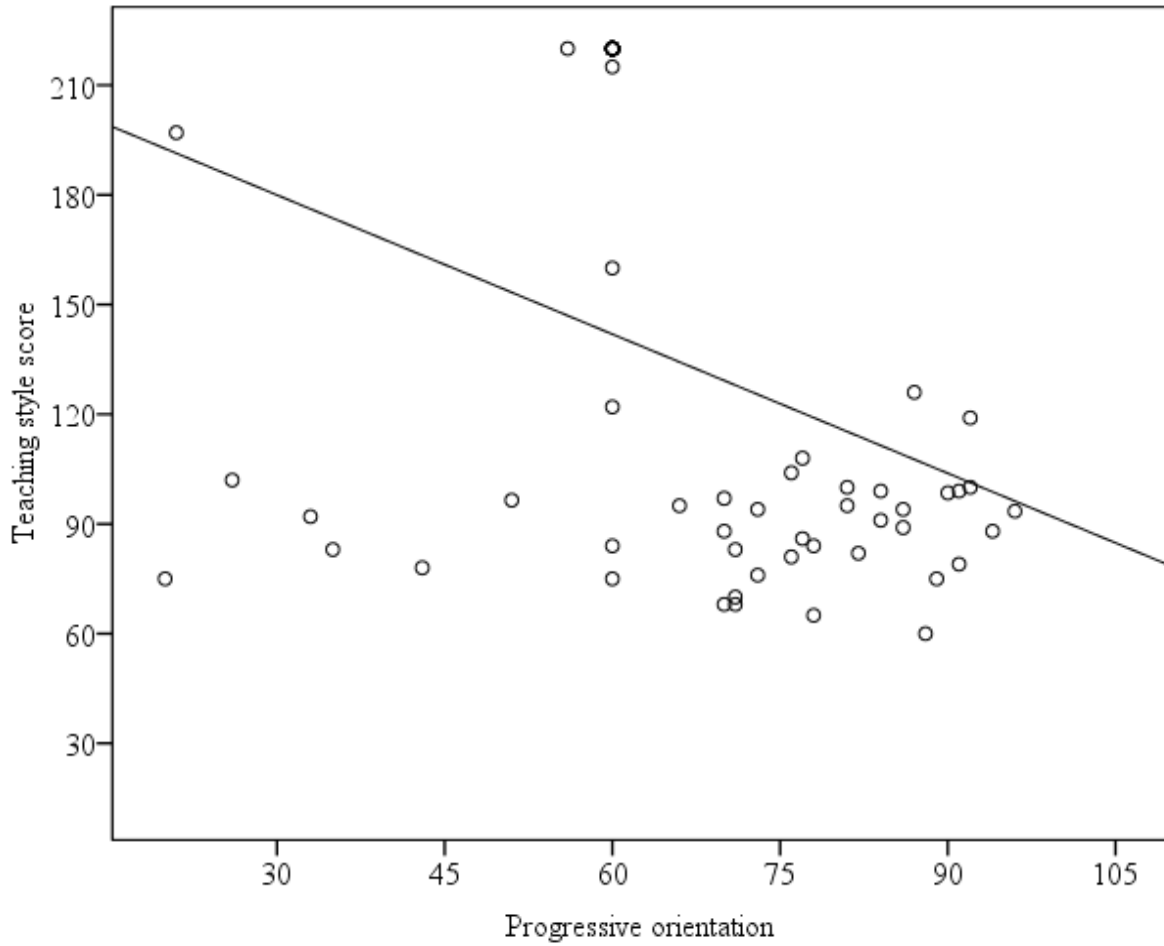


Figure 18. Scatter Plot: Progressive Orientation and Total Teaching Style.

The scatter plot showing the relationship between the total teaching style score and the humanistic orientation is shown in Figure 19. The data in the scatter plot form a linear pattern in that the line of best fit through the center of the data points is a straight line ($r = -.28$). Therefore

linearity has been established for the relationship between teaching style and the humanistic orientation.

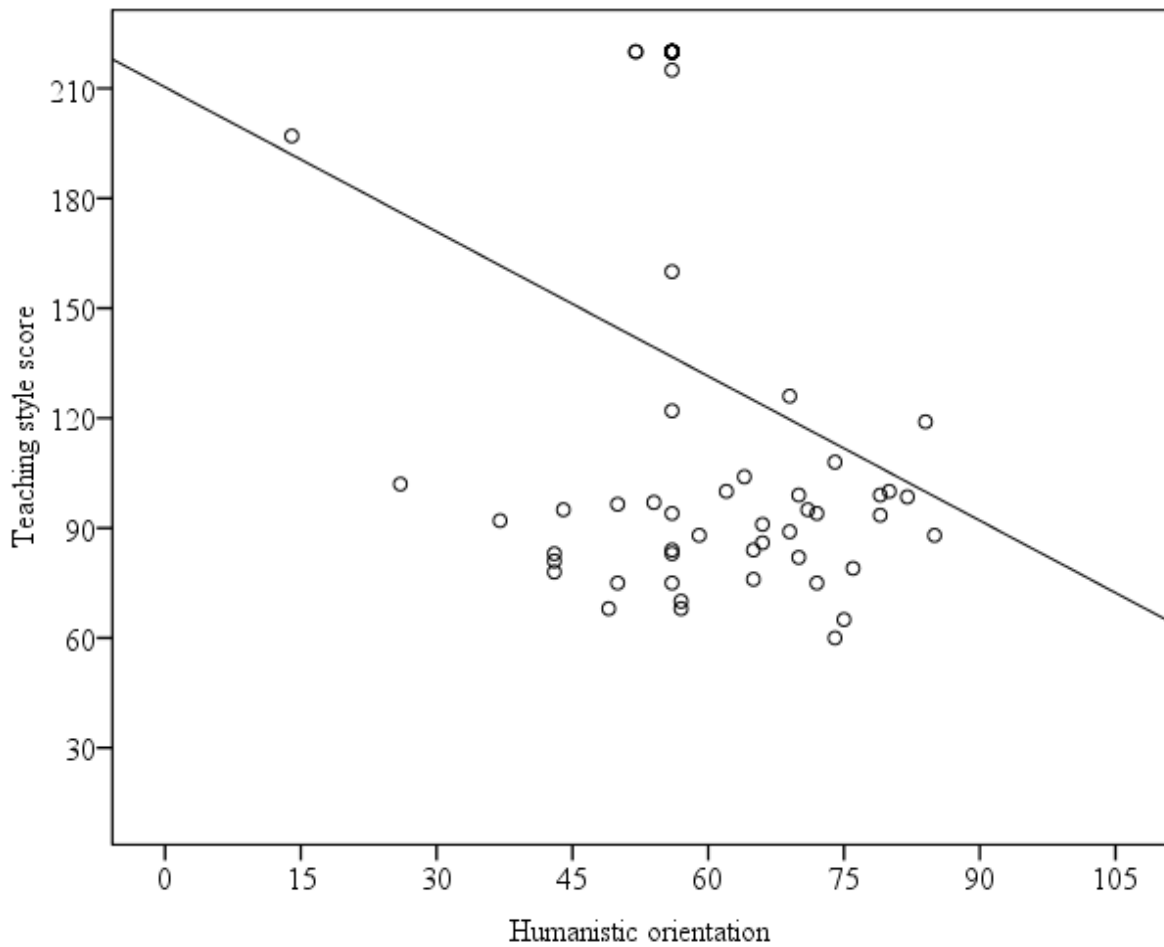


Figure 19. Scatter Plot: Humanistic Orientation and Total Teaching Style.

Finally, Figure 20 illustrates the pattern of the data when examining the relationship between the radical orientation and teaching style. The scatter plot in Figure 20 indicates that the data form a linear pattern in that the line of best fit through the center of the data points is a straight line ($r = -.13$). Therefore linearity has been established for the relationship between teaching style and the radical orientation.

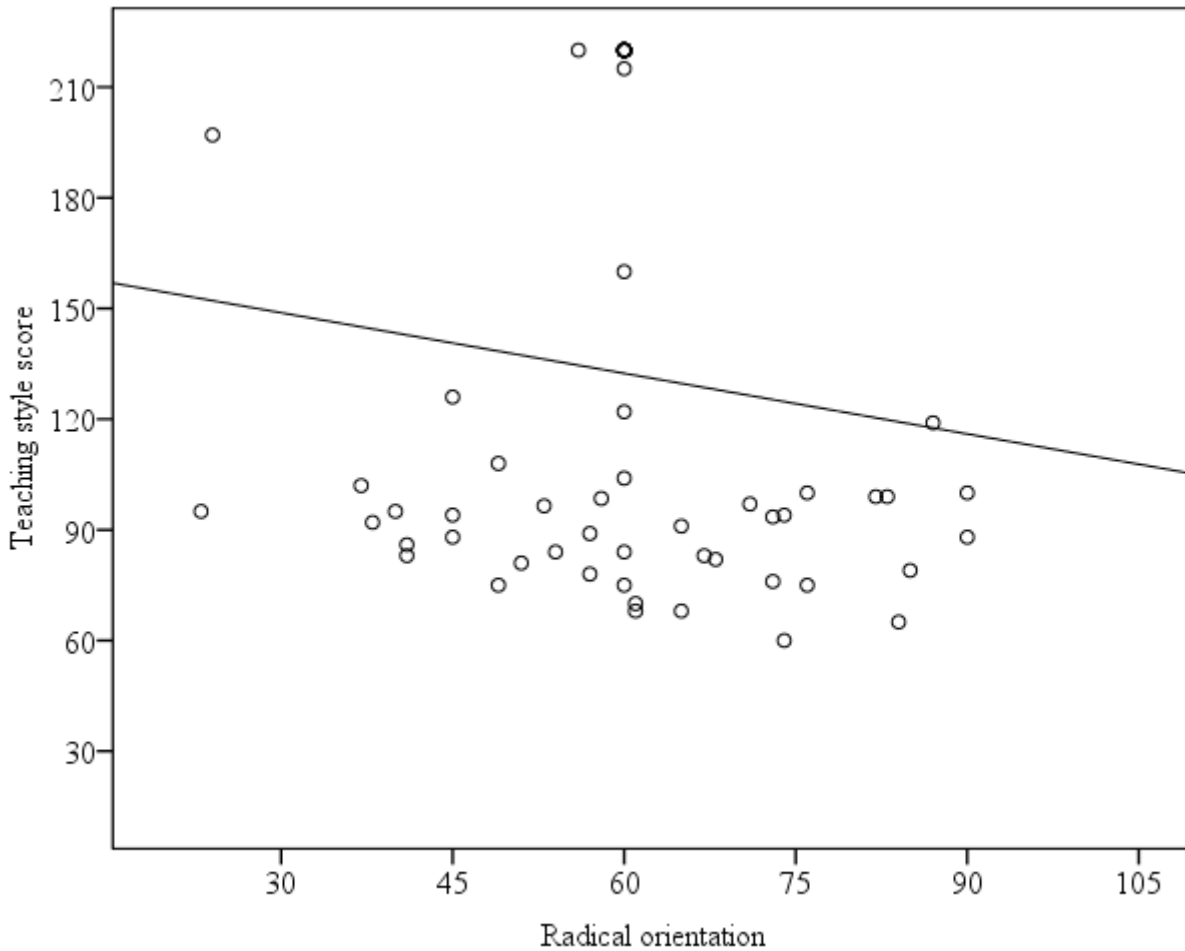


Figure 20. Scatter Plot: Radical Orientation and Total Teaching Style.

Given that the relationships were found to be linear, the data were scaled and the participants' responses were found to be variable, Pearson correlation was deemed appropriate. The results for the Pearson correlations are provided in Table 10. The results in Table 10 indicate that all of the relationships were negative indicating that the lower the philosophy orientation score, the higher the teaching style score. Also, all of the significant relationships were small to moderate or moderate in strength.

Table 10

Pearson Correlation Coefficients: Philosophy Orientation and Teaching Style

Scale	Statistic	L	B	P	H	R
Total score	<i>r</i>	-0.32	-0.40	-0.36	-0.28	-0.12
	<i>p</i>	0.01	< .01	< .01	0.03	0.33
Learning-centered activities	<i>r</i>	-0.32	-0.39	-0.33	-0.24	-0.26
	<i>p</i>	0.01	< .01	0.01	0.06	0.04
Personalizing instruction	<i>r</i>	-0.28	-0.35	-0.33	-0.24	-0.07
	<i>p</i>	0.03	0.01	0.01	0.06	0.61
Relating to experience	<i>r</i>	-0.31	-0.37	-0.33	-0.25	-0.07
	<i>p</i>	0.01	< .01	0.01	0.05	0.60
Assessing student needs	<i>r</i>	-0.29	-0.37	-0.34	-0.29	-0.04
	<i>p</i>	0.02	< .01	0.01	0.02	0.74
Climate building	<i>r</i>	-0.32	-0.39	-0.36	-0.27	-0.13
	<i>p</i>	0.01	< .01	< .01	0.04	0.31
Participating in learning process	<i>r</i>	-0.29	-0.36	-0.32	-0.26	-0.08
	<i>p</i>	0.02	< .01	0.01	0.04	0.53
Flexible: personal development	<i>r</i>	-0.38	-0.47	-0.42	-0.35	-0.17
	<i>p</i>	< .01	< .01	< .01	0.01	0.20

The relationships between the total teaching style scores and each of the philosophical orientations were as follows: liberal orientation was negative and moderate and statistically significant ($r = -.32, p = .01$); behaviorist orientation was moderate and statistically significant ($r = -.40, p < .01$); progressive orientation was moderate and statistically significant ($r = -.36, p < .01$); humanistic orientation was small to moderate and statistically significant ($r = -.28, p = .03$)

and the radical orientation was very small and not statistically significant ($r = -.12, p = .33$).

Therefore the only orientation not significantly associated with total teaching style scores was the radical orientation.

The relationships between the learning-centered activities scores and each of the philosophical orientations were as follows: liberal orientation was moderate and statistically significant ($r = -.32, p = .01$); behaviorist orientation was moderate and statistically significant ($r = -.39, p < .01$); progressive orientation was moderate and statistically significant ($r = -.33, p = .01$); the humanistic orientation was small to moderate and not statistically significant ($r = -.24, p = .06$) and the radical orientation was small to moderate and statistically significant ($r = -.26, p = .04$). Therefore the only orientation not significantly associated with learning-centered activities scores was the humanistic orientation.

The relationships between the personalizing instruction scores and each of the philosophical orientations were as follows: liberal orientation was small to moderate and statistically significant ($r = -.28, p = .03$); the behaviorist orientation was moderate and statistically significant ($r = -.35, p = .01$); the progressive orientation was moderate and statistically significant ($r = -.33, p = .01$); the humanistic orientation was small and not statistically significant ($r = -.24, p = .06$) and the radical orientation was close to zero and not statistically significant ($r = -.07, p = .61$).

The relationship between the relating to experience scores and each of the philosophical orientations were as follows: liberal orientation was moderate and statistically significant ($r = -.31, p = .01$); the behaviorist orientation was moderate and statistically significant ($r = -.37, p < .01$); the progressive orientation was moderate and statistically significant ($r = -.33, p = .01$); the humanistic orientation was small and statistically significant ($r = -.25, p = .05$) and the radical

orientation was close to zero and not statistically significant ($r = -.07, p = .60$). Therefore the only orientation not significantly associated with relating to experience scores was the radical orientation.

The relationships between the assessing student needs scores and each of the philosophical orientations were as follows: liberal orientation was small to moderate and statistically significant ($r = -.29, p = .02$); the behaviorist orientation was moderate and statistically significant ($r = -.37, p < .01$); the progressive orientation was moderate and statistically significant ($r = -.34, p = .01$); the humanistic orientation was small to moderate and statistically significant ($r = -.29, p = .02$) and the radical orientation was close to zero and not statistically significant ($r = -.04, p = .74$). Therefore the only orientation not significantly associated with assessing student needs scores was the radical orientation.

The relationships between the climate building scores and each of the philosophical orientations were as follows: liberal orientation was moderate and statistically significant ($r = -.32, p = .01$); the behaviorist orientation was moderate and statistically significant ($r = -.39, p < .01$); the progressive orientation was moderate and statistically significant ($r = -.36, p < .01$); the humanistic orientation was small to moderate and statistically significant ($r = -.27, p = .04$) and the radical orientation was very small and not statistically significant ($r = -.13, p = .31$). Therefore the only orientation not significantly associated with climate building scores was the radical orientation.

The relationships between the participating in the learning process scores and each of the philosophical orientations were as follows: liberal orientation was small to moderate and statistically significant ($r = -.29, p = .02$); the behaviorist orientation was moderate and statistically significant ($r = -.36, p < .01$); the progressive orientation was moderate and

statistically significant ($r = -.32, p = .01$); the humanistic orientation was small to moderate and statistically significant ($r = -.26, p = .04$) and the radical orientation was very close to zero and not statistically significant ($r = -.08, p = .53$). Therefore the only orientation not significantly associated with participating in the learning process scores was the radical orientation.

Finally, the relationships between the flexibility for personal development scores and each of the philosophical orientations were as follows: liberal orientation was moderate and statistically significant ($r = -.38, p < .01$); the behaviorist orientation was moderate to substantial and statistically significant ($r = -.47, p < .01$); the progressive orientation was moderate and statistically significant ($r = -.42, p < .01$); the humanistic orientation was moderate and statistically significant ($r = -.35, p = .01$) and the radical orientation was small and not statistically significant ($r = -.17, p = .20$). Therefore the only orientation not significantly associated with flexibility for personal development scores was the radical orientation.

In order to synthesize these correlation findings, a mean correlation coefficient was computed by averaging across all five correlation coefficients for each teaching style outcome. The results in Figure 21 indicate that the teaching style outcome most strongly associated with philosophical orientation was flexibility for personal development (e.g. mean correlation coefficient of $-.36$). However, on average, all mean correlation coefficients were small to moderate or moderate in strength and negative indicating that higher philosophical orientation scores were weakly to moderately associated with lower teaching style scores.

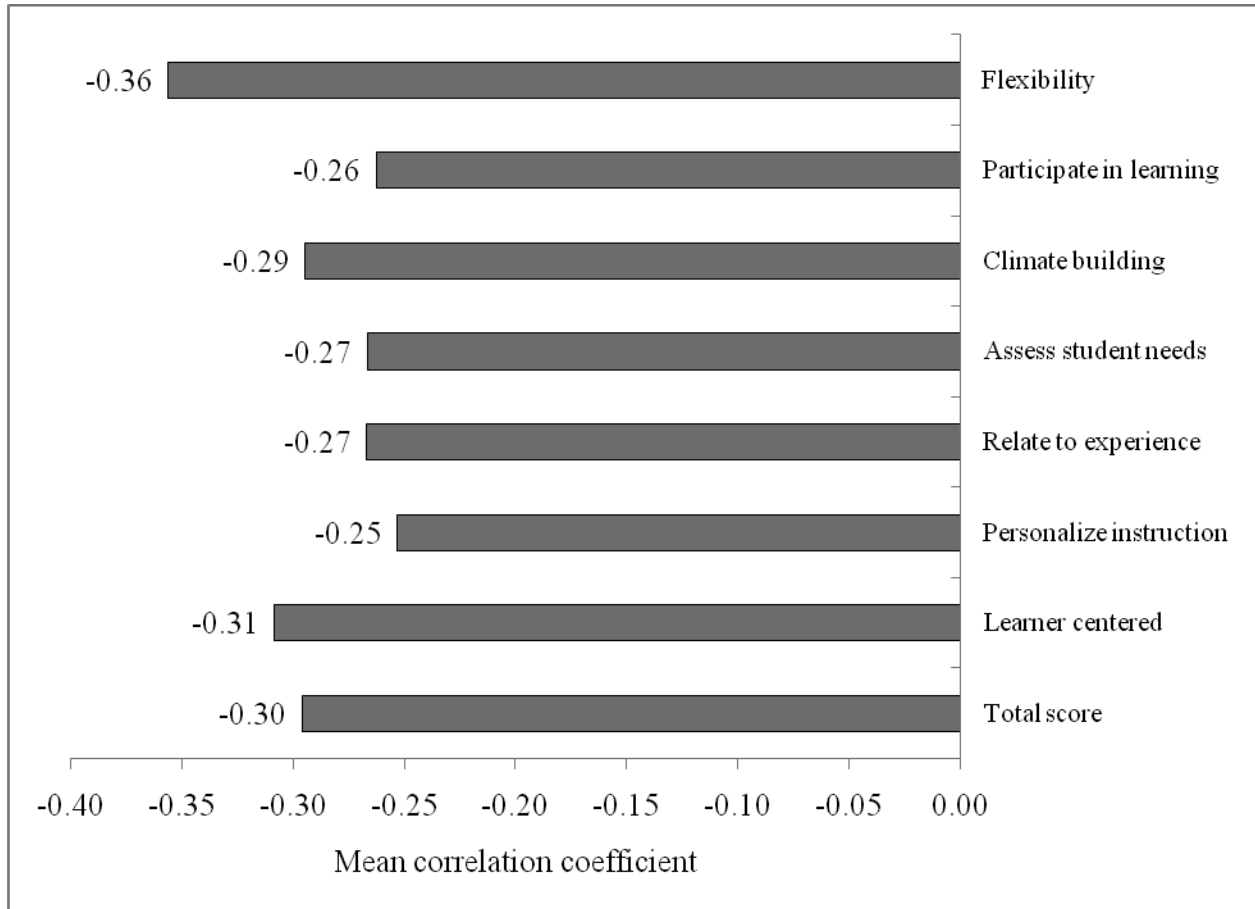


Figure 21. Mean Correlation Coefficient between Teaching Style and Philosophical Orientation.

The results for research hypothesis three indicate that the relationships between each philosophical orientation and each teaching style outcome were statistically significant. In addition, the relationships between philosophical orientation and each teaching style outcome were small to moderate or moderate in strength. Therefore the null hypothesis of no relationship in the overall population was rejected and the research hypothesis of a relationship in the overall population between philosophical orientation and teaching style was retained.

Conclusion

This chapter provided the data analysis findings for each research hypothesis based on a total sample of 62 survey participants of which 19 were entrepreneur educators and 43 were workforce educators. Descriptive statistics were computed for all of the philosophical orientations and all of the teaching style outcomes. In addition, inferential statistics were used to determine if significant differences existed between workforce educators and entrepreneur educators with regard to their philosophical orientations and their teaching styles. Furthermore, the relationship between participants' philosophical orientation scores and teaching style scores was tested. The alpha level for this study was set at .05.

The results of this study indicate that workforce educators had higher mean philosophical orientation scores than entrepreneur educators, although the scores were not statistically significant at the .05 alpha level. The results of this study also indicated that the entrepreneur educators had higher mean teaching style scores than workforce educators, although the mean differences did not reach statistical significance at the .05 alpha level.

With regard to the relationship between philosophical orientation and teaching style, small to moderate and negative correlations were found in the majority of the relationships tested indicating that the higher the philosophical orientation score, the lower the teaching style score. Furthermore, the teaching style most strongly correlated (overall) with philosophical orientation was flexibility for personal development.

In summary, this study did not find empirical support for the first two research hypotheses, although the third research hypothesis was supported. Chapter 5 provides a discussion of these findings based on the practical implications of the findings and their

relationship to the literature. In addition, Chapter 5 discusses the limitations of this particular research study and provides recommendations for future research.

CHAPTER V. SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS

Introduction

The contents of this chapter consist of a summary of procedures, findings, conclusions, and implications of the study's results. Recommendations for further study are also presented.

The purpose of this study was to identify individual education philosophies and teaching styles among entrepreneurship instructors and incubator faculty using the Philosophy of Adult Education Inventory (PAEI) and Principles of Adult Learning Scale (PALS) instruments. This study also examined the relationship between the philosophies and styles and identified similarities and differences among the participants according to a comparison of means. The following research questions were addressed:

1. What differences exist in philosophical orientations of workforce educators and entrepreneurship instructors within the State of Georgia?
2. What differences exist in teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia?
3. What relationship exists between the philosophical orientations and teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia?

Summary

Independent samples t-test were conducted to see if the two groups of instructors differed significantly on the philosophical dimensions and the teaching styles. The independent samples t-test were based on the statistical assumption that the two groups being compared, based on their means, had equal variances. Levene's test indicated if the statistical assumption of the t-test was

met, while the independent samples t-test indicated whether or not the two groups had equivalent means (versus significantly different means). Pearson r was used to test the strength and the direction of the relationship between the philosophical dimensions and the teaching style dimensions.

The reliability coefficients of the PAEI five scales range from .75 to .86 (Zinn, 1983). And the PALS yielded a reliability coefficient of .92 (Conti, 1982). This study yielded a reliability coefficient of .985 for the PAEI, and .987 for the PALS, which indicates a high internal reliability for both surveys.

Sixty-two online surveys, which contained both the Philosophy of Adult Education Inventory (PAEI) and Principles of Adult Learning Scale (PALS), were returned from the entrepreneurship instructors and workforce educators. The responding participants were an equal number of males and females. The majority of the respondents held a master's degree (64.5%). And have been employed at their current job for 9 years. The respondents also indicated they had work with adults for an average of 13 years, and have trained others for an average of 16 years. Completed survey instruments were received from nineteen of the 30 entrepreneurship instructors (63%). Forty-three survey responses were received from the 276 workforce educators (15.6%).

Discussion of the PALS Summary Statistics

According to Conti (1990), the average total teaching style score on the Principles of Adult Learning Scale is 146, and scores above 146 indicate a tendency towards a learner-centered style while scores below 146 indicate a teacher-centered style. The sample in this study had an average score of 132.17, which indicated a tendency to be teacher-centered. Elias and Merriam (1995) suggested that educators select one particular theory as a framework in order to

build a personal teaching philosophy. Apps (1985) found when instructors identified with one philosophy; they can fit their beliefs into a comfortable intellectual home. Because the total PALS score reflects the overall teaching style of an individual instructor. Theories on teaching and educational philosophy may be used to generalize about this population.

The items within the PALS can be divided into seven categories that reflect seven specific aspects (factors) teaching styles. The learning-centered mean was 44.50 out of a possible score range of zero to 60. This factor is identifiable with Knowles (1990) description of learner-centered andragogical approach to education. In which the educator empowers and guides students in their learning process. The personalizing instruction mean was 24.29 out of a possible score range of zero to 45. This factor is identifiable to the instructor using a self-pacing guide that is dictated by students (Conti, 1990). Respondents scored a mean of 15.85 on relating to experience factor with a mean out of a possible score range of zero to 30. This factor is identifiable with the ability of instructors to relate to student's prior experiences in the classroom environment (Conti, 1990).

Additionally, the climate building mean was 11.46 out of a possible score range of zero to 20. This factor is identifiable with educators being regularly focused on climate building as the first step in planning learning activities (Conti, 1990). The mean for participating in the learning process factor was 9.97 out of a possible score range of zero to 20. This factor is identifiable with instructors allowing students to select some materials and topics to be used and covered in the learning environment (Cont, 1990). Finally, the mean for flexibility for personal development factor was 15.23 out of a possible score range of zero to 65. This factor is identifiable with instructors viewing themselves as knowledge providers or facilitators (Conti, 1990).

Discussion of the PAEI Summary Statistics

Collectively, on the Philosophy of Adult Education Inventory, respondents scored highest on the progressive orientation with a mean score of 67.68 followed by the behaviorist orientation with a mean score of 67.19. Because both scores fell above 66 and below 95, the study indicated that respondents have an agreement with both progressive and behaviorist orientations (Zinn, 1983). The progressive philosophy has influence the creation of practical programs in adult education such as basic business literacy instruction. In adult education, the behaviorist philosophy is commonly associated with vocational training, job skill acquisition and certification (Elias & Merriam, 1995; Zinn, 1990). A teacher practicing the progressive philosophy would constantly adjust the program to suit the adult's specific needs, while a teacher practicing the behaviorist philosophy would emphasize acquiring job skills and design learning environments to meet predetermined goals.

Scoring in the middle was the liberal orientation; respondents reported a mean score of 63.39. Since, the mean score was between 55 and 65, the respondents in this study tended to be neutral towards the presumption that teachers are the singular knowledge holders and know what can best be taught directly by the them (Elias & Merriam, 1995). Finally, respondents scored in the low end on the radical orientation with a reported mean score of 60.45, and the humanistic orientation with a mean score of 59.47.

The PAEI mean scores, in this study, correlate with the literature. According to descriptions of the philosophies written by Elias and Merriman (1995), the humanistic and radical philosophies incorporated learner-centered styles. This study indicated that respondents tended to be teacher-centered. Furthermore, this study indicated that respondents scored higher in the progressive, behaviorist and liberal orientations. And according to the descriptions of Elias &

Merriman (1995), behavioral, progressive, and liberal orientations are the dominant educational philosophies, which tend to be more teacher-centered.

Discussion of Statistical Findings

The first research question asked if there was a significant difference in philosophical orientations of workforce educators and entrepreneurship instructors within the State of Georgia? Responses to the PAEI identified that workforce educators had higher mean scores than did the entrepreneurship instructors, across all five philosophical orientations. When differences in mean scores were compared, the largest difference was identified in the behaviorist orientation (63.53 vs 68.61). And the smallest difference was identified in the liberal orientation (61.58 vs 64.19). The findings was not statistically significant at the .05 alpha level with regard to the behaviorist orientation ($p = .25$) and the liberal orientation ($p = .46$), therefore, the null hypothesis was not rejected.

The second research question asked if there was a significant difference teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia. Responses to the PALS identified that entrepreneurship instructors had higher mean scores than did the workforce educators across the board. When differences in mean scores were compared, the largest difference was identified in the total teaching style (144.69 vs. 126.64). And the smallest difference was identified in the flexibility for personal development dimension (15.68 vs. 15.02). The findings was not significant at the .05 alpha level with regard to total teaching style ($p = .30$) and flexibility for personal development ($p = .74$), therefore, the null hypothesis was not rejected.

When educators interact with students, they should consider the implications of what they are doing in their classroom (de Chambeau, 1977). Unfortunately, many instructors fail to consider what impact their methods or activities have on the classroom environment (Elias &

Merriam, 1995; Zinn, 1990). It is critical for educators and instructors to engage in a process of examining what they believe because educational philosophies and teaching styles affect teachers, curriculum, and the learning environment (Galbraith, 1999).

Since the null was not rejected for research questions one and two, respondents may have felt pressure to abide by teaching styles and institutional philosophies rather than to report their own personal beliefs. This tendency towards adherence is highly likely considering the survey instruments for the workforce educators were distributed by e-mail using of the Technical College System of Georgia's list serve. In which their institutions' Vice President of Instruction forwarded the survey instruments to them. And for the entrepreneurship instructors, their e-mail solicitation came directly from their facility director. The online information letter informed potential respondents that their philosophy and teaching styles were being examined. And further stated that any information obtained in connection with this study would remain anonymous. As a result, many respondents may have felt intimidated and may have answered according to what they perceived as the right answer, despite instructions that there were no right or wrong answers. Lastly, institutional factors such as, budget cuts due to the slowing economy, may have affected how respondents reported their own personal beliefs. Many state and federally funded workforce education and entrepreneurship programs are now focused on the survival of the program rather than the needs of the adult learner (de Chambeau, 1977).

The third research question asked if there was a relationship between philosophical orientations and teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia. Linearity was demonstrated between total teaching style scores and each philosophical orientation. The findings were found to be statistically significant at the .05 alpha level. Therefore, the null hypothesis was rejected.

The literature provides evidence indicating a relationship between “an individual’s beliefs, values, or attitudes and the decisions and actions” (Zinn, 1990, p. 40). However, it can be implied, from the results of this research question, that traditional views on educational philosophy and teaching styles are unknowingly upheld. Attitudes, beliefs, and values provide the basis for philosophical orientation; therefore an educator’s individual and prior experiences can influence the development of their philosophy and teaching style. On the other hand, traditional views may be knowingly upheld because adults perform roles accepted and expected by society (Knowles, 1978).

It is interesting to note, that the radical orientation was not significantly associated with total teaching styles scores. This is in line with the literature because radical orientation tends to be learner-centered. Radical orientation is often referred in the literature as the resistance to mainstream educational philosophies, because it encourages the oppressed to rise up and use education as a vehicle to combat oppression. It is also commonly associated with job training. Job training is a second chance system for the unemployed, outsourced, poor and disadvantaged, and others who have not been served well by the mainstream education system (Guttman, 1992). Since the 90’s every sector of America’s economy has been hit by rising unemployment, population growth, cheap foreign labor, and corporate downsizing (U.S. Department of Labor, 2008). Many people experience major life changes or transitions and use entrepreneurship training as a means to survive. Therefore, it is absolutely necessary that our government systems and structures evolve to stimulate economic growth and job creation.

Recommendations

The following recommendations for future research are offered in an attempt to explore further the educational philosophies and teachings styles of workforce educators and entrepreneurship instructors.

1. This study should be replicated in different states. By using one state in a particular region of the United States, the results may be difficult to generalize to other states. It would be beneficial to compare results of the PALS and PAEI in different economic regions.
2. One weakness of this study is that only the educational philosophies and teaching styles of workforce educators and entrepreneurship instructors within the State of Georgia were examined. It could be beneficial to expand the population of the study to include participation from community leaders, administrators, economic developers and policy makers in the state of Georgia.
3. This study could be repeated using the same population. Researchers could examine, whether the respondent's scores had changed on teaching styles and educational philosophies. According to the literature, teachers as a whole lack the ability to clearly identify their teaching beliefs (Conti, 1990).
4. Additional research could be conducted to investigate whether if there is a significant difference between teaching style and student achievement. The literature indicates that the undereducated learner may dislike structured training programs, and are more likely to drop out of training programs than other populations (Smith, 1982).
5. A study could be conducted to investigate the quality of adult education services provided through Georgia's incubator and post secondary education system. And

compare the results to student achievement, teaching style, or educational philosophy. According to the literature, a lot of training facilities place more importance on the survival of the institution rather than the needs of adult learners (de Chambeau, 1977).

6. Future research should include a national study to determine if there is a relationship between philosophical orientation and teaching styles of workforce educators and entrepreneurship instructors. By conducting a national study, the sample size would increase, thus creating more opportunity for significant *p*-values.

Conclusions

A lack of documented research regarding entrepreneurship training spurred this research project. Survey data, gathered via the PALS and PAEI, were used to gain insight to three research questions. The descriptive results, in this study, indicate that the respondents in this sample were diverse with regard to their teaching styles measured by the Principals of Adult Learning Scale. Overall, these scores are related to theoretical assumptions in the literature. In this study the desire to individualize the learning experience, with the goal of developing the learner's own skills and competencies in the planning and execution as an individual and as a member of a co-operative learning group was not apparent (Skager, 1978, p. 14). The "process in which individuals take the initiative in designing learning experiences and diagnosing needs" (Brookfield, 1986, p. 40) was circumvented in this study. Langenbach (1993) ascertained that "negotiation between facilitator and learner is paramount in the learning contract process" (p. 175). Teachers are in a position to determine whether they desire to do something differently in their classrooms. But the data, in this study, indicated that respondents alienated their students from the process of determining what resources would be used and how they were to be used

(Seaman & Fellenz, 1989). The basic assumption underlying the teaching/learning process is that the purpose of education is to guide, promote, and facilitate change (Galbraith, 1990). And adult educators, who plan and conduct training programs, waste a lot of time and energy when philosophies of education and teaching styles can not be differentiated (Galbraith, 1990; Elias & Merriam, 1995).

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Appendix 1 – Demographic Information Sheet

Demographic Information	
1. Gender	
<input type="checkbox"/>	Male
<input type="checkbox"/>	Female
2. Length of employment at current job (years).	
<input type="text"/>	
3. Length of experience in training others (years).	
<input type="text"/>	
4. Length of experience in workforce education (years).	
<input type="text"/>	
5. Education	
<input type="radio"/>	Bachelors
<input type="radio"/>	Masters
<input type="radio"/>	Doctorate
<input type="radio"/>	Other (please specify)
<input type="text"/>	

**PHILOSOPHY OF ADULT
EDUCATION INVENTORY
(August, 1983^(c))**

INSTRUCTIONS FOR COMPLETION

Each of the fifteen (15) items on the Inventory begins with an incomplete sentence, followed by five different options that might complete the sentence. Undemeath each option is a scale from 1 to 7, followed by a small letter in parentheses. For the present, *ignore* the letters; use only the numbers on the scale.

To complete the Inventory, read each sentence stem and each optional phrase that completes it. On the 1-7 scale, **CIRCLE** the number that most closely indicates how you feel about each option. The scale goes from 1 (strongly disagree) to 7 (strongly agree), with a neutral point (4) if you don't have any opinion or aren't sure about a particular option.

Continue through all the items, reading the sentence stem and indicating how strongly you agree or disagree with each of the options. Please respond to *every option*, even if you feel neutral about it. **THERE ARE NO RIGHT OR WRONG ANSWERS.**

As you go through the Inventory, respond according to what you *most frequently or most likely do*. If it helps you to respond more easily, you may want to focus on a specific course that you teach. If you do focus on a particular course, choose one that you feel most comfortable teaching--one that you think best reflects your preferred style of teaching.

HAVE FUN!

[L.M. Zinn, PAEI^(c) 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE			NEUTRAL			STRONGLY AGREE
1	2	3	4	5	6	7

1. **IN PLANNING AN EDUCATIONAL ACTIVITY, I AM MOST LIKELY TO:**

Identify, in conjunction with learners, significant social and/or political issues and plan learning activities around them.

1	2	3	4	5	6	7	(h)
----------	----------	----------	----------	----------	----------	----------	------------

Clearly identify the results I want and develop a program [class, workshop] that will achieve those results.

1	2	3	4	5	6	7	(c)
----------	----------	----------	----------	----------	----------	----------	------------

Begin with a lesson plan that organizes what I plan to teach, when and how.

1	2	3	4	5	6	7	(a)
----------	----------	----------	----------	----------	----------	----------	------------

Assess learners' needs and develop valid learning activities based on those needs.

1	2	3	4	5	6	7	(d)
----------	----------	----------	----------	----------	----------	----------	------------

Consider the areas of greatest interest to the learners and plan to deal with them, regardless of what they may be.

1	2	3	4	5	6	7	(f)
----------	----------	----------	----------	----------	----------	----------	------------

STRONGLY DISAGREE		NEUTRAL			STRONGLY AGREE	
1	2	3	4	5	6	7

2. PEOPLE LEARN BEST:

When the new knowledge is presented from a problem-solving approach.

1 2 3 4 5 6 7 (x)

When the learning activity [is clearly structured and] provides for practice and repetition.

1 2 3 4 5 6 7 (w)

Through dialogue [discussion] with other learners and a group coordinator.

1 2 3 4 5 6 7 (z)

When they are free to explore, without the constraints of a "system."

1 2 3 4 5 6 7 (y)

From an "expert" who knows what he or she is talking about.

1 2 3 4 5 6 7 (v)

[L.M. Zinn, PAEISM 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE		NEUTRAL			STRONGLY AGREE	
1	2	3	4	5	6	7

3. THE PRIMARY PURPOSE OF ADULT EDUCATION IS:

To facilitate personal development on the part of the learner.

1 2 3 4 5 6 7 (i)

To increase learners' awareness of the need for social change and to enable them to effect such change.

1 2 3 4 5 6 7 (h)

To develop conceptual or theoretical understanding.

1 2 3 4 5 6 7 (a)

To establish the learners' capacity to solve individual and societal problems.

1 2 3 4 5 6 7 (d)

To develop the learners' competency and mastery of specific [knowledge and] skills.

1 2 3 4 5 6 7 (c)

STRONGLY DISAGREE			NEUTRAL			STRONGLY AGREE
1	2	3	4	5	6	7

4. **MOST OF WHAT PEOPLE KNOW:**

Is a result of consciously pursuing their goals, solving problems as they go.

1 2 3 4 5 6 7 (x)

They have learned through critical [reflective] thinking focused on important social and political issues.

1 2 3 4 5 6 7 (z)

They have learned through a trial-and-feedback process.

1 2 3 4 5 6 7 (w)

They have gained through self-discovery rather than some "teaching" process.

1 2 3 4 5 6 7 (y)

They have acquired through a systematic [comprehensive] educational process.

1 2 3 4 5 6 7 (v)

[L.M. Zinn, PAEITM 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE		NEUTRAL			STRONGLY AGREE	
1	2	3	4	5	6	7

5. DECISIONS ABOUT WHAT TO INCLUDE IN A [LEARNING] ACTIVITY:

Should be made mostly by the learner in consultation with a facilitator.

1 2 3 4 5 6 7 (f)

Should be based on what learners know and what the teacher believes they should know at the end of the activity.

1 2 3 4 5 6 7 (c)

Should be based on a consideration of key social, [political,] and/or cultural situations.

1 2 3 4 5 6 7 (h)

Should be based on a consideration of the learners' needs, interests and problems.

1 2 3 4 5 6 7 (d)

Should be based on careful analysis by the teacher of the material to be covered and the concepts to be taught.

1 2 3 4 5 6 7 (a)

STRONGLY DISAGREE				NEUTRAL				STRONGLY AGREE
1	2	3	4	5	6	7	<hr/>	

6. GOOD ADULT EDUCATORS START PLANNING INSTRUCTION:

By considering the end behaviors [specific outcomes] they are looking for and the most efficient ways of producing them in learners

1 2 3 4 5 6 7 (w)

By identifying [everyday] problems that can be solved as a result of the instruction.

1 2 3 4 5 6 7 (x)

By clarifying the [content,] concepts and/or theoretical principles to be taught.

1 2 3 4 5 6 7 (v)

By clarifying key social and political issues that affect the lives of the learners.

1 2 3 4 5 6 7 (z)

By asking learners to identify what they want to learn and how they want to learn it.

1 2 3 4 5 6 7 (y)

[L.M. Zinn, PAE^{1st} 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE				NEUTRAL			STRONGLY AGREE
1	2	3	4	5	6	7	

7. AS AN ADULT EDUCATOR, I AM MOST SUCCESSFUL IN SITUATIONS:

That are unstructured and flexible enough to follow learners' interests.

1 2 3 4 5 6 7 (f)

That are fairly structured, with clear learning objectives and built-in feedback to the learners.

1 2 3 4 5 6 7 (c)

Where I can focus on practical skills and knowledge that can be put to use in solving problems.

1 2 3 4 5 6 7 (d)

Where the scope of the new material is fairly clear and the subject matter is logically organized.

1 2 3 4 5 6 7 (a)

Where the learners have some awareness of social and political issues and are willing to explore the impact of such issues on their daily lives.

1 2 3 4 5 6 7 (h)

STRONGLY DISAGREE			NEUTRAL			STRONGLY AGREE
1	2	3	4	5	6	7

8. IN PLANNING AN EDUCATIONAL ACTIVITY, I TRY TO CREATE:

The real world—problems and all—and to develop learners' capacities for dealing with it.

1	2	3	4	5	6	7	(x)
---	---	---	---	---	---	---	-----

A setting in which learners are encouraged to examine their beliefs and values and to raise critical questions.

1	2	3	4	5	6	7	(z)
---	---	---	---	---	---	---	-----

A controlled environment that attracts and holds the learners, moving them systematically towards the objectives.

1	2	3	4	5	6	7	(w)
---	---	---	---	---	---	---	-----

A clear outline of the content and the concepts to be taught [learned].

1	2	3	4	5	6	7	(v)
---	---	---	---	---	---	---	-----

A supportive climate that facilitates self-discovery and interaction.

1	2	3	4	5	6	7	(y)
---	---	---	---	---	---	---	-----

[L.M. Zinn, PAET¹⁴ 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE			NEUTRAL			STRONGLY AGREE
1	2	3	4	5	6	7

9. THE LEARNERS' FEELINGS DURING THE LEARNING PROCESS:

Must be brought to the surface in order for learners to become truly involved in their learning.

1 2 3 4 5 6 7 (h)

Provide energy that can be focused on problems or questions.

1 2 3 4 5 6 7 (d)

Will probably have a great deal to do with the way they approach their learning.

1 2 3 4 5 6 7 (l)

Are used by the skillful adult educator to accomplish the learning objectives.

1 2 3 4 5 6 7 (c)

Are likely to get in the way of teaching [and learning] by diverting the learners' attention.

1 2 3 4 5 6 7 (a)

STRONGLY DISAGREE				NEUTRAL				STRONGLY AGREE
1	2	3	4	5	6	7		

10. THE TEACHING METHODS I [PREFER TO] USE:

Focus on problem-solving and present real challenges to the learner.

1 2 3 4 5 6 7 (x)

Emphasize practice and feedback to the learner.

1 2 3 4 5 6 7 (w)

Are mostly non-directive, encouraging the learner to take responsibility for his/her own learning.

1 2 3 4 5 6 7 (y)

Involve learners in dialogue [discussion] and critical examination of controversial issues.

1 2 3 4 5 6 7 (z)

Are determined primarily by the subject or content to be covered.

1 2 3 4 5 6 7 (v)

[L.M. Zinn, PAEJTM 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE		NEUTRAL			STRONGLY AGREE	
1	2	3	4	5	6	7

11. **WHEN LEARNERS ARE UNINTERESTED IN A SUBJECT, IT IS [PROBABLY] BECAUSE:**

They do not realize how serious the consequences of not understanding or [not] learning the subject may be.

1 2 3 4 5 6 7 (h)

They do not see any benefit for their daily lives.

1 2 3 4 5 6 7 (d)

The teacher does not know enough about the subject or is unable to make it interesting to the learner.

1 2 3 4 5 6 7 (a)

They are not getting adequate [practice or] feedback during the learning process.

1 2 3 4 5 6 7 (c)

They are not ready to learn it or it is not a high priority for them personally.

1 2 3 4 5 6 7 (f)

STRONGLY DISAGREE						STRONGLY AGREE
	1	2	3	4	5	6
				NEUTRAL		7

12. **DIFFERENCES AMONG ADULT LEARNERS:**

Are relatively unimportant as long as the learners gain a common base of understanding through the learning experience.

1 2 3 4 5 6 7 (v)

Enable them to learn best on their own time and in their own way.

1 2 3 4 5 6 7 (y)

Are primarily due to differences in their life experiences, and will usually lead them to make different applications of new knowledge and skills to their own situations.

1 2 3 4 5 6 7 (x)

Arise from their particular cultural and social situations and should [not] be minimized even as they recognize common needs and problems.

1 2 3 4 5 6 7 (z)

Will not interfere with their learning if each learner is given adequate opportunity for practice and reinforcement.

1 2 3 4 5 6 7 (w)

[L.M. Zinn, PAEP⁹⁴ 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE		NEUTRAL			STRONGLY AGREE	
1	2	3	4	5	6	7

13. EVALUATION OF LEARNING OUTCOMES:

Is not of great importance and may not be possible, because the impact of learning may not be evident until much later.

1 2 3 4 5 6 7 (h)

Should be built into the system, so that learners will continually receive feedback and can adjust their performance accordingly.

1 2 3 4 5 6 7 (c)

Is best done by the learners themselves, for their own purposes.

1 2 3 4 5 6 7 (f)

Lets me know how much learners have increased their conceptual understanding of new material.

1 2 3 4 5 6 7 (a)

Is best accomplished when the learner encounters a problem, either in the learning setting or the real world, and successfully resolves it.

1 2 3 4 5 6 7 (d)

STRONGLY DISAGREE						STRONGLY AGREE
	1	2	3	4	5	6
			NEUTRAL			7

14. **MY PRIMARY ROLE AS A TEACHER OF ADULTS IS TO:**

Guide learners through [structured] learning activities with well-directed feedback.

1 2 3 4 5 6 7 (w)

Systematically lead learners in acquiring new information and understanding underlying theories and concepts.

1 2 3 4 5 6 7 (v)

Help learners identify and solve problems [better].

1 2 3 4 5 6 7 (x)

Increase learners' awareness of environmental, social [and political] issues and help them learn how to have an impact on these situations.

1 2 3 4 5 6 7 (z)

Facilitate, but not to direct, learning activities.

1 2 3 4 5 6 7 (y)

[L.M. Zinn, PAE¹⁹ 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

STRONGLY DISAGREE						STRONGLY AGREE	
	1	2	3	4	5	6	7

15. IN THE END, IF LEARNERS HAVE NOT LEARNED WHAT WAS TAUGHT:

The teacher has not actually "taught."

1 2 3 4 5 6 7 (a)

They need to repeat the experience, or a portion of it.

1 2 3 4 5 6 7 (c)

They may have learned something else which they consider just as interesting or useful.

1 2 3 4 5 6 7 (l)

They do not realize how learning will enable them to significantly influence society.

1 2 3 4 5 6 7 (h)

It is probably because they are unable to make practical application of new knowledge to problems in their daily lives.

1 2 3 4 5 6 7 (d)

[GO TO THE NEXT PAGE TO FIND OUT
HOW TO SCORE YOUR ANSWERS.]

SCORING INSTRUCTIONS

After completing the Inventory, go back to your responses and find the small letter in parentheses to the far right of each rating scale. This is a code letter for scoring the Inventory. First, transfer each of your numbers on the rating scale to the Scoring Matrix on the next page. For example, for item #1, if you circled a 5 for option (h), write the number 5 in the box for 1(h). Item #1 has *five* different responses: h,c,a,d,f. Record *all five* of your responses for item #1, then continue with #2 - #15. When you finish, there will be numbers in *every other square* in the Matrix (like a checkerboard).

[PLEASE GO TO THE NEXT PAGE AND COMPLETE THE SCORING MATRIX.]

[L.M. Zinn, PAEI[®] 1983/1994, Lifelong Learning Options, Boulder, CO 80303]

PHILOSOPHY OF EDUCATION INVENTORY

SCORING MATRIX

Item	a	v	c	w	d	x	f	y	h	z
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
Sub T										
FINAL SCORES:	(a + v)		(c + w)		(d + x)		(f + y)		(h + z)	

[L.M. Zinn, Philosophy of Education Inventory]
1981 ©

Appendix 3 — Principles of Adult Learning Scale (PALS)

Principles of Adult Learning Scale

Directions: The following survey contains several things that a teacher of adults might do in a classroom. You may personally find some of them desirable and find others undesirable. For each item please respond to the way you most frequently practice the action described in the item. Your choices are Always, Almost Always, Often, Seldom, Almost Never, and Never. Circle 0 if you always do the event; circle number 1 if you almost always do the event; circle number 2 if you often do the event; circle number 3 if you seldom do the event; circle number 4 if you almost never do the event; and circle number 5 if you never do the event. If the item **does not apply** to you, circle number 5 for never.

Always	Almost Always	Often	Seldom	Almost Never	Never
0	1	2	3	4	5

- | | |
|--|-------------|
| 1. I allow students to participate in developing the criteria for evaluating their performance in class. | 0 1 2 3 4 5 |
| 2. I use disciplinary action when it is needed. | 0 1 2 3 4 5 |
| 3. I allow older students more time to complete assignments when they need it. | 0 1 2 3 4 5 |
| 4. I encourage students to adopt middle-class values. | 0 1 2 3 4 5 |
| 5. I help students diagnose the gaps between their goals and their present level of performance. | 0 1 2 3 4 5 |
| 6. I provide knowledge rather than serve as a resource person. | 0 1 2 3 4 5 |
| 7. I stick to the instructional objectives that I write at the beginning of a program. | 0 1 2 3 4 5 |
| 8. I participate in the informal counseling of students. | 0 1 2 3 4 5 |
| 9. I use lecturing as the best method for presenting my subject material to adult students. | 0 1 2 3 4 5 |
| 10. I arrange the classroom so that it is easy for students to interact. | 0 1 2 3 4 5 |
| 11. I determine the educational objectives for each of my students. | 0 1 2 3 4 5 |

	Always	Almost Always	Often	Seldom	Almost Never	Never
	0	1	2	3	4	5
12. I plan units which differ as widely as possible from my students' socio-economic backgrounds.	0	1	2	3	4	5
13. I get a student to motivate himself/herself by confronting him/her in the presence of classmates during group discussions.	0	1	2	3	4	5
14. I plan learning episodes to take into account my students' prior experiences.	0	1	2	3	4	5
15. I allow students to participate in making decisions about the topics that will be covered in class.	0	1	2	3	4	5
16. I use one basic teaching method because I have found that most adults have a similar style of learning.	0	1	2	3	4	5
17. I use different techniques depending on the students being taught.	0	1	2	3	4	5
18. I encourage dialogue among my students.	0	1	2	3	4	5
19. I use written tests to assess the degree of academic growth in learning rather than to indicate new directions for learning.	0	1	2	3	4	5
20. I utilize the many competencies that most adults already possess to achieve educational objectives.	0	1	2	3	4	5
21. I use what history has proven that adults need to learn as my chief criteria for planning learning episodes.	0	1	2	3	4	5
22. I accept errors as a natural part of the learning process.	0	1	2	3	4	5
23. I have individual conferences to help students identify their educational needs.	0	1	2	3	4	5
24. I let each student work at his/her own rate regardless of the amount of time it takes him/her to learn a new concept.	0	1	2	3	4	5
25. I help my students develop short-range as well as long-range objectives.	0	1	2	3	4	5

	Always	Almost Always	Often	Seldom	Almost Never	Never
	0	1	2	3	4	5
26. I maintain a well-disciplined classroom to reduce interferences to learning.	0	1	2	3	4	5
27. I avoid discussion of controversial subjects that involve value judgements.	0	1	2	3	4	5
28. I allow my students to take periodic breaks during the class.	0	1	2	3	4	5
29. I use methods that foster quiet, productive, deskwork.	0	1	2	3	4	5
30. I use tests as my chief method of evaluating students.	0	1	2	3	4	5
31. I plan activities that will encourage each student's growth from dependence on others to greater independence.	0	1	2	3	4	5
32. I gear my instructional objectives to match the individual abilities and needs of the students.	0	1	2	3	4	5
33. I avoid issues that relate to the student's concept of himself/herself.	0	1	2	3	4	5
34. I encourage my students to ask questions about the nature of their society.	0	1	2	3	4	5
35. I allow a student's motives for participating in continuing education to be a major determinant in the planning of learning objectives.	0	1	2	3	4	5
36. I have my students identify their own problems that need to be solved.	0	1	2	3	4	5
37. I give all students in my class the same assignment on a given topic.	0	1	2	3	4	5
38. I use materials that were originally designed for students in elementary and secondary schools.	0	1	2	3	4	5
39. I organize adult learning episodes according to the problems that my students encounter in everyday life.	0	1	2	3	4	5
40. I measure a student's long-term educational growth by comparing his/her total achievement in class to his/her expected performance as measured by national norms from standardized tests.	0	1	2	3	4	5

	Always	Almost Always	Often	Seldom	Almost Never	Never
	0	1	2	3	4	5
41. I encourage competition among my students.						0 1 2 3 4 5
42. I use different materials with different students.						0 1 2 3 4 5
43. I help students relate new learning to their prior experiences.						0 1 2 3 4 5
44. I teach units about problems of everyday living.						0 1 2 3 4 5

Scoring the PALS

Positive Items

Items number 1, 3, 5, 8, 10, 14, 15, 17, 18, 20, 22, 23, 24, 25, 28, 31, 32, 34, 35, 36, 39, 42, 43, and 44 are positive items.

For positive items, assign the following values: Always = 5, Almost Always = 4, Often = 3, Seldom = 2, Almost Never = 1, and Never = 0.

Negative Items

Items number 2, 4, 6, 7, 9, 11, 12, 13, 16, 19, 21, 26, 27, 29, 30, 33, 37, 38, 40, and 41 are negative items.

For negative items, assign the following values: Always = 0, Almost Always = 1, Often = 2, Seldom = 3, Almost Never = 4, and Never = 5.

Missing Items

Omitted items are assigned a neutral value of 2.5.

Computing Scores

An individual's total score on the instrument is calculated by summing the value of the responses to all items. The average score for the PALS is a 146, and scores should be interpreted against that average. Scores above 146 indicate a tendency towards a learner-centered teaching style, and scores below indicate a tendency towards a teacher-centered style. There is a standard deviation of 20, meaning that scores tend to fall between 126 and 166 and scores tending towards these numbers indicate an increased commitment to that particular teaching style. Scores falling 20 to 40 points from the average (106 - 186) indicate a very strong and consistent support of a definitive teaching style. Scores falling beyond the second deviation (< 105 and >186) indicate an extreme commitment to one particular style.

Appendix 4 — Auburn University Institutional Review Board (IRB) Approval Letter



AUBURN
UNIVERSITY

Office of Human Subjects Research
307 Sanford Hall
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
hsubject@auburn.edu

May 18, 2009

MEMORANDUM TO: Tuboise Floyd
Education Foundation Leadership Technology

PROTOCOL TITLE: "An Exploratory Study of the Philosophy and Teaching Styles of Georgia Workforce Educators and Entrepreneurship Instructors"

IRB FILE NO.: 09-126 EX 0904

APPROVAL DATE: April 26, 2009
EXPIRATION DATE: April 25, 2010

The referenced protocol was approved "Exempt" on April 26, 2009 under 45 CFR 46.101 (b) (2):

"Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:

- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
- (ii) any disclosure of the human subjects' response outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

You should retain this letter in your files, along with a copy of the revised protocol and other pertinent information concerning your study. If you should anticipate a change in any of the procedures authorized in this protocol, you must request and receive IRB approval prior to implementation of any revision. Please reference the above IRB file number in any correspondence regarding this project.

If you will be unable to file a Final Report on your project before April 25, 2010, you must submit a request for an extension of approval to the IRB no later than April 10, 2010. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to April 25, 2010 you must suspend the project immediately and contact the Office of Human Subjects Research for assistance.

A Final Report will be required to close your IRB project file. Please note that the approved, stamped version of your information letter should be provided to participants during the consent process.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 844-5966.

Sincerely,

Kathy Jo Ellison, RN, DSN, CIP
Chair of the Institutional Review Board
for the Use of Human Subjects in Research

cc: Dr. Jose Llanes
Dr. James Witte

Appendix 5 – Participant Information Letter

Information Letter for a Research Study Entitled:

"Entrepreneurship Trainers in Georgia: Examination of Philosophy and Training Styles"

Dear Sir or Madam:

You are invited to participate in a research study to investigate the philosophical orientations and teaching styles of entrepreneurship trainers in Georgia. This study is being conducted by Tuboise Floyd, a doctoral student in Adult Education from Auburn University studying Entrepreneurship Training under the supervision of Dr. James Witte, Associate Professor of Educational Foundations, Leadership and Technology. I hope to learn about correlations between the educational philosophies and training styles of entrepreneurship trainers. You were selected as a possible participant because you were identified either as a trainer with one of the organizations offering entrepreneurship education and training in Georgia or as a Basic Education instructor with one of the organizations offering education and training to adults in Georgia, and are age 18 or older.

If you decide to participate, I have included a link to two survey instruments, Zinn's Philosophy of Adult Education Inventory (PAEI), and Conti's Principles of Adult Learning Scale (PALS). As you may be aware, the first survey reports your personal philosophical orientation toward teaching adults and the second identifies preferred teaching styles. These surveys do not have "right" or "wrong" answers; they merely report your philosophy towards adult education and preferred teaching style. The PAEI can be completed in about 20 minutes, and the PALS in about 15 minutes.

These surveys provide you with an opportunity to access your personal education philosophy. Because the philosophy and teaching style are related, this kind of self-awareness can enable you to evaluate teaching behaviors in your specific training environment.

Any information obtained in connection with this study will remain anonymous. Information collected through your participation may be published in a professional journal, and/or presented at a professional meeting. You may certainly choose to withdraw from participation at any time without penalty, however, if anonymous information has been provided, you will be unable to withdraw that data after participation since there will be no way to identify individual information.

Your decision whether or not to participate will not jeopardize your future relations with Auburn University or Department of Educational Foundations, Leadership and Technology, or your place of employment. If you have any questions, I invite you to ask them now. If you have questions later, either Tuboise Floyd at 678-717-7004 (or email at floydtd@auburn.edu) or Dr. James Witte at 334-844-3054 will be happy to answer them.

For more information regarding your rights as a research participant you may contact the Auburn University Office of Human Subjects Research of the Institutional Review Board by phone (334) 844-5966 or e-mail at hsubjects@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER TO PARTICIPATE IN THE RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE CLICK NEXT AT THE BOTTOM OF THE PAGE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO.

Tuboise Floyd
Doctoral Candidate, Adult Education
Auburn, University

The Auburn University
Institutional Review Board
has approved this document for use
from 4/26/09 to 4/25/10.
Protocol # 09-126 EX 0904