

AN EXPLORATORY STUDY OF THE PHILOSOPHY AND TEACHING STYLES  
OF ALABAMA WORKFORCE EDUCATION AND  
ENTREPRENEURSHIP INSTRUCTORS

Except where reference is made to the work of others, the work described in this dissertation is my own or was done in the collaboration with my advisory committee.  
This dissertation does not include proprietary or classified information.

---

Lisa Powell

Certificate of Approval:

---

Margaret E. Ross  
Associate Professor  
Educational Foundations,  
Leadership and Technology

---

James E. Witte, Chair  
Associate Professor  
Educational Foundations,  
Leadership and Technology

---

Sean A. Forbes  
Associate Professor  
Educational Foundations,  
Leadership Technology

---

Maria Martinez Witte  
Associate Professor  
Educational Foundations,  
Leadership and Technology

---

Stephen L. McFarland  
Dean  
Graduate School

AN EXPLORATORY STUDY OF THE PHILOSOPHY AND TEACHING STYLES  
OF ALABAMA WORKFORCE EDUCATION AND  
ENTREPRENEURSHIP INSTRUCTORS

Lisa Powell

A Dissertation

Submitted to

the Graduate Faculty of

Auburn University

in Partial Fulfillment of the

Requirements for the

Degree of

Doctor of Education

Auburn, Alabama  
August 7, 2006

AN EXPLORATORY STUDY OF THE PHILOSOPHY AND TEACHING STYLES  
OF ALABAMA WORKFORCE EDUCATION AND  
ENTREPRENEURSHIP INSTRUCTORS

Lisa Powell

Permission is granted to Auburn University to make copies of this dissertation at its discretion, upon request of individuals or institutions at their expense. The author reserves all publication rights.

---

Lisa Powell

---

Date of Graduation

## VITA

Lisa Powell received her MC in Communication at Auburn University in 1992. After moving to Nashville, she taught adults during night classes at Nashville State Technical College in 1996. She also worked as an adjunct at Volunteer State Technical College, Belmont University, Belmont Community College, Tennessee State University, and continuing education classes at the Ford Glass plant in Nashville. In 2000 she started as a software trainer for accounting packages designed specifically for contract furniture dealers. She traveled and trained employees on the new software, in basic accounting and bookkeeping principles, and assisted in facilitating conversions. She moved to San Francisco after one client offered her a consultant position for the duration of the conversion. She moved back to Alabama and began work on a Doctorate in Adult Education at Auburn University in January of 2003. Besides being a Doctoral student, she also worked with the Center for Governmental Services training elected and appointed public officials in their education and continuing education tracks for their certification. Her current job responsibilities include developing curriculum, facilitating courses, as well as some teaching. She has also begun working part-time as an adjunct with Troy State University at Fort Benning.

DISSERTATION ABSTRACT  
ENTREPRENEURSHIP INSTRUCTORS IN ALABAMA:  
PHILOSOPHY AND TEACHING STYLES

Lisa Powell

Doctor of Education, August 7, 2006  
(M.C., Communication, 1993)  
(B.A. Christian Education, 1986)

180 typed pages

Directed by James E. Witte

The adult educational philosophies and teaching styles of workforce education and entrepreneurship instructors within the State of Alabama were examined using Zinn's Philosophy of Adult Education Inventory (PAEI) and Conti's Principles of Adult Learning Scale (PALS) instruments. Relationships were examined between the educational philosophies and teaching styles among the participants. This exploratory study also examines the philosophies and teaching styles of Alabama workforce education instructors. The instruments described the attitudes toward various established educational philosophies and teaching styles of the participants in real life teaching situations.

According to the PAEI, the majority of instructors agreed with the progressive

and behavioral educational philosophies. Overall, the participants tended to agree with all five educational philosophies. Very few of the instructors reported scores reflecting disagreement, and none of the instructors strongly disagreed with any of the different educational philosophies. This would tend to support the literature that instructors do not tend to examine their educational philosophies and may not be aware of the existing inconsistencies within their beliefs.

Both groups of instructors reported mean scores below the mean established by Conti (2004) for the PALS indicating they tended to be more teacher-centered rather than learner-centered. Female instructors tended to report higher scores than male instructors. Instructors with MBA's tended to have lower scores than those with education degrees. Five of the instructors reported adult education degrees, and these instructors scored above the established mean in the learner-centered range, and score above the established means in three of the seven factor scores on the PALS.

## ACKNOWLEDGEMENTS

Almost everyone who writes dissertation acknowledgements describes the process as long and impossible without assistance from others. First, I would like to acknowledge and thank my committee; Dr. Sean Forbes for making me rewrite my midterm six times; Dr. Betsy Ross for patiently wading me through statistics; Dr. Maria Witte for never being too busy to meet with me; and Dr. Jim Witte for becoming my friend.

John Steinbeck wrote that some things in life were so difficult; he would never attempt them without someone standing in his corner with a sponge. Numerous friends have been in my corner for years and others have proven extremely helpful during this writing process. First, I want to extend my heartfelt thanks to my dearest friends who have been in my corner for years: Marlynn, Kathy, Shelby, Jennifer, and Kurt. I would also like to thank Pree Atwal and Juliana Gray for recording episodes of *SVU*; Tom Brantly for proof reading; Richard Cherry for loaning me his laptop cooler; Susan Clay for walking with me; John Fill for his dishwasher and washing machine; and Maria Folmar for suggesting disposable dinnerware.

Finally, I would like to dedicate this dissertation to my parents, Rodney and Diane Powell. To quote Robert Frost, “Home is the place where, when you have to go there, they have to take you in.” Thank you for taking me in.

Style manual or journal used: Publication Manual of the American Psychological Association, 5<sup>th</sup> Edition.

Computer software used: SPSS 13.0, 14.0, Windows XP, and Microsoft Word 2004



## TABLE OF CONTENTS

		Page
LIST OF TABLES .....		xii
CHAPTER		
1	INTRODUCTION .....	1
	Overview .....	1
	Statement of the Problem.....	3
	Significance of the Problem.....	3
	Purpose of the Study .....	5
	Research Questions.....	5
	Limitations .....	5
	Definitions of Terms.....	6
	Summary.....	8
CHAPTER		
2	REVIEW OF LITERATURE .....	9
	Introduction.....	9
	Entrepreneurship Training .....	12
	Mentors .....	16
	Networking .....	17
	Incubators.....	19
	Andragogy and Pedagogy.....	20
	Adult Learner Populations .....	24
	Teaching Philosophy.....	29
	Behavioral.....	32
	Liberal.....	35
	Progressive.....	37
	Humanistic .....	39
	Radical .....	42
	(PAEI) Philosophy of Adult Education Inventory.....	43
	Teaching Styles.....	45
	Self Directed Learning.....	48
	Learner-Centered Teaching .....	49
	Teacher-Centered Teaching.....	51
	(PALS) Principles of Adult Learning Scale.....	52
	Summary.....	53

CHAPTER			
3	METHODS .....		55
	Introduction.....		55
	Design .....		56
	Population .....		56
	Philosophy of Adult Education Inventory (PAEI).....		58
	Description .....		59
	Validity.....		60
	Reliability.....		62
	Principles of Adult Learning Scale (PALS).....		62
	Description .....		62
	Validity.....		63
	Reliability.....		64
	Procedures.....		64
	Variables .....		66
	Data Analysis .....		67
	Summary .....		68
CHAPTER			
4	RESULTS .....		69
	Overview.....		69
	PAEI.....		70
	Results .....		71
	Entrepreneurship Instructors (Group A).....		72
	Workforce Education Instructors (Group B) .....		78
	PALS.....		86
	Results .....		87
	Entrepreneurship Instructors (Group A).....		94
	Workforce Education Instructors (Group B) .....		102
CHAPTER			
5	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....		114
	Overview.....		114
	Summary .....		115
	Conclusions.....		123
	Recommendations.....		128
	Implications.....		129
REFERENCES .....			133
APPENDICES .....			143
	APPENDIX A. PARTICIPANT INFORMATION LETTER GROUP A.....		144
	APPENDIX B. PARTICIPANT INFORMATION LETTER GROUP B.....		146
	APPENDIX C. INSTITUTIONAL REVIEW BOARD (IRB).....		148

APPENDIX D. INSTITUTIONAL REVIEW BOARD MODIFICATION .....	149
APPENDIX E. DEMOGRAPHIC INFORMATION SHEET.....	150
APPENDIX F. PAEI SURVEY INSTRUMENT.....	151
APPENDIX G. PALS SURVEY INSTRUMENT .....	163

## LIST OF TABLES

Table	Page
1. Overview of PAEI Scores for Both Groups.....	72
2. Overview of PAEI Scores for Group A .....	73
3. Individual PAEI Scores for Group A .....	74
4. Agreement in PAEI Scores Within Group A.....	75
5. PAEI Distribution According to Philosophical Agreement Within Group A....	76
6. Group A Mean PAEI Scores by Obtained Degrees.....	77
7. Group A Mean PAEI Scores According to Employment and Experience .....	78
8. Overview of PAEI Scores for Group B .....	79
9. PAEI Scores of Group B by Instructor Gender.....	80
10. PAEI Distribution According to Philosophical Agreement Within Group B....	81
11. Group B Mean PAEI Scores by Obtained Degree.....	81
12. Agreement with PAEI Scores for Group B by Obtained Degree .....	83
13. Agreement with PAEI Scores for Obtained Degrees.....	84
14. Breakdown of PAEI Results for Group B by Employment Status .....	86
15. Statistical Analysis of PALS Scores of Both Groups .....	88
16. Deviation Distribution of PALS Scores for Both Groups .....	88
17. Statistical Analysis of PALS Factors for Both Groups .....	91

18.	Distribution of PALS Factors According to the Mean for Both Groups .....	94
19.	Statistical Analysis of PALS Scores of Group A.....	95
20.	Distribution of PALS Scores According to Deviations for Group A .....	95
21.	Overview and Statistical Analysis of the PALS Factors Within Group A .....	96
22.	Distribution of PALS Factors According to the Mean for Group A .....	99
23.	Statistical Analysis of PALS Scores of MBA's.....	100
24.	Deviation Distribution of PALS Scores for MBA's .....	100
25.	Statistical Analysis and Comparison of PALS Factors for MBA's.....	101
26.	Statistical Analysis of the PALS Factors for MBA's .....	102
27.	Statistical Analysis of PALS Scores of Group B .....	103
28.	Distribution of PALS Scores Among the Deviations for Group B .....	104
29.	Statistical Analysis of the PALS Factors Within Group B .....	105
30.	Distribution of PALS Factors According to the Mean for Group B .....	108
31.	Statistical Analysis of PALS Scores of Adult Education Degrees.....	109
32.	Deviation Distribution of PALS Scores for Adult Education Degrees.....	109
33.	Comparison of Statistical Analysis of PALS Factors for Adult Education Instructors.....	110
34.	Statistical Analysis of PALS Factors of Instructors with Adult Education Degrees.....	113
35.	Overview of PAEI Mean for Both Groups.....	116
36.	Comparison of Philosophical Agreement by Both Groups .....	118
37.	PAEI Distribution According Philosophical Agreement.....	119
38.	Deviation Distribution of PALS Scores Among Both Groups .....	121
39.	Overview and Comparison of the 7 PALS Factors for Both Groups.....	123

40. Comparison of Highest PAEI Score and PALS Score for Both Groups .....126

## CHAPTER 1

### INTRODUCTION

#### *Overview*

Before educators begin interacting with students, they should have considered implications of what they are doing in their classroom (de Chambeau, 1977). However, few instructors consider the implications of their methods or activities for the students (Elias & Merriam, 1995; Zinn, 2004). According to Elias & Merriam (1995), anytime teachers engage in the act of teaching they are “guided by some theory or some philosophy” (p. 5), implying that a teacher becomes a philosopher of education when he or she considers principles that apply to personal classroom processes (Elias & Merriam, 1995).

Elias & Merriman (1995) outlined five main philosophical orientations in education (behavioral, liberal, progressive, humanistic, and radical) and described these philosophies in terms of the methods, techniques, and concepts typically identified with their usage. Each of these philosophies views the role of teachers and learners in very specific ways. Tisdale & Taylor (2000) wrote that teacher’s educational philosophy is imbedded in what the teacher believes about teaching and learning as well as what the teacher actually does within the classroom. Because teachers, curriculum, and learning

materials are all affected by educational philosophies, it is important 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, 2000, p. 13).

According to descriptions of the philosophies written by Elias & Merriman (1995), three philosophies incorporate teacher-centered styles; the behavioral, liberal, and progressive philosophies. The remaining two philosophies, humanistic and radical, tend to be more learner-centered. Other research (Conti, 1985; Zinn, 2004) has revealed a direct relationship between educational philosophies and instructor teaching styles “and that the process that discriminates groups in this relationship is the educator’s view of the role of the teacher in the teaching-learning process” (Conti, 2004, p. 77).

Recently, micro-enterprises, or small businesses usually run by one person, have become an important element of economic growth and development for communities and economies (Nelson & Mburugu, 1991; Yarzebinski, 1992). The success and failure rates for the micro-enterprises tends to be based more upon the preparedness of the entrepreneurs (Ladzani & van Vuuren, 2002) and the entrepreneurship training and education they receive (Baldwin, 1999; Gray, 1992; Nelson & Mburugu, 1991; Wan, 1988) rather than the economic environment where the business is situated. Over the last decade, literature has described the self-directed and more learner-centered approaches as being the most effective approaches for entrepreneurship training and education as described in the Best Practices for Business Resource Centers’ and Incubators’ training facilities (Lichtenstein & Lyons, 1996).



## Statement of Problem

Researchers (Beder, 1989; Boone, Buckingham, Gartin, Lawrence, & Odell, 2002) have described the importance of establishing the philosophical orientation of training programs reflecting beliefs about how adult learning occurs and identifying the methods and processes instructors will use to meet training program goals. However, little research has been conducted to identify the philosophies and teaching styles of entrepreneurship instructors. The benefit of investigating teacher's philosophies and teaching styles is to allow "instructors to examine their own practice and compare what they do with what the literature espouses as principles of effective practice" (Galbraith, 2000). It is important to identify the education philosophies and teaching styles of entrepreneurship instructors and incubator faculty because "a study of philosophies of adult education should produce a professional who questions the theories, practices, institutions, and assumptions of others" (Elias & Merriam, 1995, p. 206).

### *Significance of the Problem*

Zinn (2004) described evidence indicating a relationship existing between the "beliefs, values, or attitudes and the decisions and actions" (p.40) or rather, between what a person believes and what a person does. An individual's philosophy of life provides "a framework by which (he or she) live and act" (Zinn, 2004, p. 40). Zinn (1983, 2004) and Conti (1985, 2004), among others, have linked educational philosophy to teaching-style, and teaching-style to student achievement. Entrepreneurs' success in the operation of their micro-enterprises is largely dependent upon the entrepreneurship training and education they receive. Tisdell and Taylor (2000) described the importance of teachers'

defining their philosophy - not only because of the impact to the classroom - but because the act of defining involves critical examination of classroom practices. Teachers “often become conscious of some of (their) unconscious beliefs or behaviors that affect (their) practice” (Tisdell & Taylor, 2000, p. 6).

Entrepreneurship teachers would benefit from gaining an awareness and understanding of their personal educational philosophies about adult learning, individual teaching-styles, and the impact those philosophies and styles have upon their training program and students. Elias and Merriam (1995) recommend reflecting upon philosophies in adult education as means of developing critical thinking and expanding roles beyond existing limits. The Philosophy of Adult Education Inventory (PAEI) was designed by Zinn in 1983 to help raise philosophical orientation awareness among educators, because “sometimes it is difficult to take time out from doing adult education, in order to think about why you do what you do” (Zinn, 2004, p. 56).

According to Conti (Conti, 1982), the Principles of Adult Learning Scale (PALS) is based on adult education literature supporting the collaborative teaching-learning mode. Questions are stated positively and negatively in behavioral terms to reflect principles from literature and reflect practitioners’ experience and are randomly arranged throughout the survey instrument. Day and Amstutz (2003) argued that “one of the most meaningful activities in which adult educators can engage” (p. 17) is an examination of the consistency of teaching methods to educational philosophies embraced and the identification of satisfaction with those beliefs and values.

## Purpose of the Study

The purpose of this study was to identify individual education philosophies and teaching styles among workforce education and entrepreneurship teachers within the State of Alabama using the PAEI and PALS instruments. The study examined the relationship between the educational philosophies and teaching styles of entrepreneurship teachers.

## *Research Questions*

1. What differences exist in philosophical orientations of workforce education and entrepreneurship instructors within the State of Alabama?
2. What differences exist in teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?
3. What relationships exist between the philosophical orientations and teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?

## *Limitations*

1. Self reporting questionnaires did not allow respondents to expound upon their answers or ask for clarification to questions. Some respondents may have responded inaccurately to questions because of misunderstanding the instrument texts.
2. Respondents were aware their individual philosophies and teaching styles were the subject of research. Despite assurances in the instrument directions

there were no right or wrong answers or opinions to the survey instruments respondents may have answered according to their perception of correct or prevalent adult education theories from literature rather than accurately reporting their own genuine philosophies and styles.

3. Hurricanes Katrina and Rita occurred during the writing of this dissertation, causing much damage throughout the State of Alabama. The Gulf Coast and other areas within the state were impacted both by the actual destruction of hurricane winds and tornados, as well as the influx of displaced persons and official relocation of refugees from Mississippi and Louisiana. Additionally, there was economic damage to businesses as well as financial impact to the employees and business owners within these areas. It is impossible to predict the impact this event had upon the attitudes, beliefs, and values, and therefore philosophies, of the entrepreneurship and workforce education instructors completing the surveys.

### *Definitions of Terms*

The following represents definitions of terms as applied within this study:

Micro-Enterprise: Small business, typically with one or two employees.

Entrepreneur: A person who starts and operates a micro-enterprise, frequently the only employee.

Entrepreneurship: A way of behaving during the start-up and operation of a micro-enterprise based on learned business skills and attitudes.

Entrepreneurship Training: Teaching future entrepreneurs necessary business skills to start and operate their micro-enterprises. The training may also include necessary training in basic literacy and numeracy.

Entrepreneurship Instructors: An educator teaching entrepreneurship skills.

Workforce Education: Teaching workforce skills, typically to undereducated adult learners including basic literacy and numeracy.

Workforce Education Instructors: An educator teaching workforce skills.

Incubator: A physical facility that provides infra-structure, business support services, connections for financing, and entrepreneurship training for multiple entrepreneurs and micro-enterprises.

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).

The Philosophy of Adult Education Inventory: (PAEI) Instrument measuring an Entrepreneurship Instructor's Adult Education Philosophy, developed by Lorraine Zinn (1983).

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

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

## Summary

Micro-enterprises play an important role in the economic development of this country. Their success or failure is largely dependent upon the effectiveness of the entrepreneurship training the future entrepreneurs receive. Philosophical orientations and discussions about teaching-styles have been around for several decades, but little research has been done to investigate whether entrepreneurship training and incubator faculty adhere to philosophical orientations reflected in their teaching styles, and whether those styles tend to be more conducive for effective entrepreneurship training.

The purpose of the study and its research questions, as well as the presentation of the problem, the limitations, and definitions of the terms is introduced in Chapter I. In Chapter II there is a review of related literature concerning entrepreneurship training, the five prevalent educational philosophies (behavioral, liberal, progressive, humanistic, radical), the two teaching styles (teacher and learner-centered), descriptions of self-directed learning and explanations and comparisons of andragogy and pedagogy. Chapter III outlines the design, population, procedures, variables, and data analysis. Chapter III also includes detailed explanations of the two survey instruments, PAEI and PALS, and describes their validity and reliability. The results of the study are detailed in Chapter IV. The chapter is broken into two sections for each of the instruments, PAEI and PALS, and according to each population; the entrepreneurship and workforce education instructors. Finally, Chapter V provides the summary, conclusions of the research, recommendations for further study, and implications for the field which were derived from the study.

## CHAPTER 2

### REVIEW OF LITERATURE

#### *Introduction*

Population growth, corporate downsizing, increased imports, and inexpensive foreign labor are all contributing factors to unemployment. However, government officials are beginning to recognize that economic growth currently relies heavily on community entrepreneurs and their micro-enterprises or small businesses (Yarzebinski, 1992). Micro-enterprises have been effective strategies in alleviating poverty and fostering development in economically underdeveloped areas (Soto, 2002). Entrepreneurs provide a major share of additional employment opportunities in community economic development (Nelson & Mburugu, 1991) by creating and selling products or services.

Yarzebinski (1992) described an entrepreneur as a person who “shifts economic resources out of an area of lower and into an area of higher productivity and greater yield” (p. 32). Nelson and Mburugu (1991) wrote that entrepreneurs “have 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). The list of behaviors associated with running a micro-enterprise implies entrepreneurship is conditioned or a set of reactions and responses to various business

situations (Yarzebinski, 1992). Entrepreneurial behaviors have been stimulated through the training of business and entrepreneurship skills (Klofsten, 2000). Yarzebinski (1992) cautioned that “simply running a business does not an entrepreneur make” (p. 33), and it is true that merely teaching entrepreneurship skills will not necessarily make a small business owner an entrepreneur. But entrepreneurship training may teach some necessary business skills that enable small business owners to become survival entrepreneurs who run micro-enterprises that provide employment and economic growth opportunities in communities (Baldwin, 1999). Ladzani and van Vuuren (2002) described three necessities for entrepreneurs attempting the actual start-up of a micro-enterprise: motivation, entrepreneurial skills, and business skills.

Business acumen and skills alone, without any additional entrepreneurship skills or knowledge, may be irrelevant. Likewise, the success of entrepreneurship skills depends greatly on additional business ideas, skills, and knowledge (Gibson & Conceicao, 2003). Entrepreneurship skills can be taught and business skills can be increased through training (Wan, 1988).

Ladzani and van Vuuren (2002) wrote that “There seems to be little difference in small business failure rates between developed and developing economies” (p. 4). This suggests a connection between the success of a micro-enterprise and the entrepreneur’s own preparedness rather than to the economic environment or other external factors. The failure of a micro-enterprise is attributed to an entrepreneur’s inability to accurately and knowledgeably estimate the cost and involvement of starting and running one’s own enterprise (Baldwin, 1999; Gray, 1992; Ladzani & van Vuuren, 2002). Gray (1992) specifically identified the deficiencies of business skills, acumen and market knowledge,



rather than lack of financial capital, as the biggest barriers to successful microenterprises. Baldwin (1999) indicated that “without a doubt, the big obstacle (to starting a micro-enterprise) is knowledge about how to start and run a business” (p. 22).

Nelson and Mburugu (1991) found that students who had received training that included “entrepreneurial opportunities, awareness, motivation and competences, entrepreneurship and self-employment, and enterprise management” (p. 34) were “much better equipped (for entrepreneurship), as a result of the training” (Wan, 1988, p. 67). According to Harper (1995), graduates of entrepreneurship programs tend to be “more successful than the untrained, along several dimensions” (p. 24). Graduates of entrepreneurship training programs, as a group, tended to break-even earlier in their business cycle, experienced half the employee turnover, started with  $\frac{1}{4}$  less average investment in businesses, and, finally, achieved significantly higher earnings than their untrained counterparts. Additionally, entrepreneurship training increases the self-confidence, due to the lack of business experience, future entrepreneurs may have about starting their micro- or survival-enterprises (Klofsten, 2000).

Entrepreneurs who receive training on generating and screening ideas, or identifying business opportunities, are enabled to succeed in their future micro-enterprises (Ladzani & van Vuuren, 2002). The programs should primarily emphasize practical aspects of running micro-enterprises rather than theoretical knowledge (Gibson & Conceicao, 2003). The crucial skills and competency issues provided in the training program should complement actual real-life business experiences emphasizing the practical application of entrepreneurship (Glenn, 2000). Bredo (1997) goes on to explain that in order to have the most effective learning/training program, teachers must devise

activities that allow participants to interact and manipulate the business concepts they are processing. A major focus of any entrepreneurial training program should be on knowledge transfer (Gibson & Conceicao, 2003) from teacher, mentor or other business resource to the future entrepreneur.

### Entrepreneurship Training

The purpose of entrepreneurship training is to increase small business growth, enable people to create a living for themselves, and to create employment within the community. Entrepreneurship training involves training for multiple aspects of skills necessary for entrepreneurs to start their micro-enterprises. Frequently, there is a need for basic business literacy (being able to read and write business correspondence), numeracy (being able to work with numbers and complete basic and necessary calculations), understand a bank statement, place orders, and monitor inventory. Additionally, there are higher order skills such as writing a business plan, identifying markets, locating funding, and networking, not to mention customer service and producing, promoting or selling the enterprises' goods or services.

According to Klofsten (2000) two basic kinds of training and support have been identified by research on business training. The first deals with the physical elements of business (description of facilities, budgets, organizational charts, localization, and institutional links). The second incorporates a more practical approach that examines learning by doing. Ladzani and van Vuuren (2002) explained that while there is a place for teaching business theory, there is also a need for practical application, and that practical aspects of running a small business should be emphasized over the theory

(Gibson & Conceicao, 2003). Merely teaching entrepreneurship and business skills is not sufficient; entrepreneurs need to learn ways to deal with issues external to the physical entity of their enterprise. For instance, entrepreneurs will face lack of financial resources, access to markets, and support services in their businesses (Ladzani & van Vuuren, 2002).

Because the main benefit for seeking entrepreneurship training is higher success rates, increased profits and growth for micro-enterprises (Ladzani & van Vuuren, 2002), program coordinators and teachers should endeavor to establish a broad outlook and ensure the curriculum encompasses as many business related issues and situations as possible (Klofsten, 2000). Roth (1987) wrote that “training programs have no room for ‘nice-to-know’ information” (p. 60) and that training should focus specifically on the skills and knowledge the student needs for their micro-enterprise’s success.

When planning for training programs, it is important to identify the working educational philosophy of the educators (Boone et al., 2002). Long term decisions, like the identification of course objectives, and method of participant evaluation, should be based upon teacher’s beliefs and knowledge about adult educational theory (Spurgeon & Moore, 1997). Beder (1989) describes an educational philosophy as the educator’s beliefs about the way adults learn and the way education should be conducted. This philosophy also presupposes certain general principles and methodologies that will guide the practice of education within the training program. Roth (1987) described how the education philosophy of the educators, and therefore the training program, “forms the foundation for decisions that can expand or improve training efforts. Excellence cannot be pursued

or achieved without a philosophy that guides the training department and its instructors” (p. 60).

Successful entrepreneurship training programs should be customized to meet needs of individual entrepreneurial students as well as the specific needs of the community (Klofsten, 2000). Because every community and entrepreneur possesses different needs and goals, a program using a generic curriculum is doomed to fail (Ashmore, Larson, Mahoney, & Leiken, 2000). However, de Chambeau (1977) reported that adult training facilities continue to use existing curriculum and programs without considering whether or not those programs meet the needs of the learners or, in this case, facilitate the training and development of successful entrepreneurs.

Teachers need to be able to identify the actual needs of entrepreneurial students. Frequently, due to their lack of experience, students are not necessarily able to diagnose their own training needs accurately (Klofsten, 2000). The instructor should identify the participants’ knowledge and skill level and move them through training as close as possible to the desired objective and goal of entrepreneurship and self-sufficiency (da Silveira, da Silva, Kelber, & de Freitas, 1998).

Course objectives should be created that identify what the students “need to *do* to demonstrate learning rather than ... what they need to *understand*” (Glenn, 2000, p. 12). Distinct and measurable returns from the participants are effective tools to evaluate entrepreneur performance against those course objectives. Objective measurements may include business plans, appropriate project specifications, or feedback from customer visits (Klofsten, 2000). It is very important to evaluate the success of the participants the

program by comparing the outcomes to the initial training objectives (Henry, Hill, & Leitch, 2004).

Effective entrepreneurship training programs tend to involve mentoring with successful local business people, real-world and hands-on problem solving, networking, and a type of resource center where entrepreneurs can meet and interact (Gredler, 2001; Keyton, Tansky, & Mangum, 1988; Klofsten, 2000). This training can be passed along one-on-one, or through organized incubator sponsored conferences, seminars or workshops. Community leaders, existing or retired business professionals and executives, or university faculty should be involved to serve as additional instructors or mentors. Role-play materials, games, learning activity packages, and case studies are some of the active learning tools that “are crucial to the successful delivery of entrepreneurship education programs” (Nelson & Mburugu, 1991, p. 34). Learning activities for the students should be hands-on and involve interaction (Kennedy, 2003).

The most effective training programs tend to be practically oriented (Klofsten, 2000) with application-based rather than a theory-based delivery style (Gibson & Conceicao, 2003). Joyce and Showers (1995) found that only 5% of students transferred new skills into practice after theory based education, while 95% transferred new skills into practice when theory, demonstration, practice, feedback and ongoing coaching were combined as elements of a training program. Yet, the 1999 American Society for Training and Development (ASTD) State of the Industry Report found that instructor-led lecture type classroom training remains the most prominent method of training adults in the workplace (Bassi & van Buren, 1999). When training participants were asked what specific elements made the training effective for them, answers included; “(training) had

to be real”, “I need to know what the point is”, “hands-on is how I learn best”, and “in every situation, regardless if I succeeded or failed, when I did it myself, I gained the most learning” (Caudron, 2000, p. 55).

### *Mentors*

Local business professionals and established entrepreneurs, committed to the role of mentor when working with the students, positively impact the entrepreneurship training programs because their “advisory capacity only fosters positive business attitudes and increases program relevance” (Keyton et al., 1988, p. 18). Mentors are not synonymous with guest lecturers in a classroom. Rather, they are prominent and established business people specially selected and invited by entrepreneurship facilities to speak on applicable topics and present practical advice and examples from their own business and entrepreneurial experiences (Wan, 1988) in order to help the students attempting to succeed in micro-enterprises (Ladzani & van Vuuren, 2002). Caudron (2000) quoted a training recipient on the value of mentoring:

I never learn so much as when I have a great coaching-style teacher who pushes me to see things I never would have realized, to believe in my ability to grow, to challenge myself in ways I never would have, to try hard, and to try harder. (p. 57)

Some entrepreneurship training programs utilize a one-on-one “mentoring phase ... (for) six-to-eight month(s)” (Keyton et al., 1988, p. 15) allowing participants and mentors to work together to finalize and prepare business ideas and business plans. Mentors work with entrepreneurship instructors to provide situational and business related problem solving skills. Adult learners investigate possible solutions to real life

problems while mentors inform, challenge, and correct the student's assumptions. Later students are able to continue this inter-mental cognitive functioning process when the mentor is no longer immediately available (Gredler, 2001; Klofsten, 2000). Business and entrepreneurship skills are developed and increased as the students interact with and imitate mentors (Bredo, 1997). The future entrepreneurs begin internalizing business concepts (Bredo, 1997) and "memorable and transformational learning occurs" (Caudron, 2000, p. 52) during mentoring relationships.

Sufficient effort and consideration should be used when matching mentors and participants. Personal chemistry, age, competence profile, and willingness to share experiences are all factors that should be considered. It is worth noting that mixing "entrepreneurs from ... engineering works, pizza parlours and biomedical companies in the same programme would probably not work. There are large differences in culture, competence and experience between different types of entrepreneurs" (Klofsten, 2000).

### *Networking*

Entrepreneurship teachers should help students to become a well-defined mini-culture (Heimlich & Norland, 1994). Glenn (2000) found the joint learning projects students worked on "help(ed) them join forces ... (and) focus on process(es)" (p. 13) for entrepreneurship. The students "think and talk (problems) through and learn from one another" (p. 14). Students can assist one another by sharing information, brainstorming ideas, and testing products and services. If the training program specializes in a particular industry -- like computer technology, graphic design or food services -- the networking can help improve productivity for all the students (Gredler, 2001; Seidel, 2001). Seidel

(2001) wrote that students benefit from sharing their experiences through feedback and comparative benchmarking of their respective small business. Gibson and Conceicao (2003) described the importance of knowledge transfer which occurs within these interactions. As the individual members process recently acquired theories from formal class settings, they are able to apply them in real life business situations (Seidel, 2001). This interaction also facilitates a strong commitment and bond between the participants and reinforces their contributions to colleagues' activities and training (Klofsten, 2000). Even when the training program does not specialize in a specific type of micro-enterprise, the students build lasting business relationships that extend beyond their training periods (Lichtenstein & Lyons, 1996).

The principles of networking as well as the emphasis on interactions of individuals with their environments (Hirshberg, 1991) are theories modified from other disciplines that have been incorporated into the paradigm of entrepreneurship training. When an entrepreneurship training program encourages community networking, the students are able to receive additional training and information from additional resources outside of the physical learning environment. Because the students are unlikely to have access to an extensive list of community business contacts, it is the responsibility of the facility and teachers to provide this support, develop business contacts, and coordinate the opportunities (Klofsten, 2000). Both Buckner (personal communication, September 2003), the Director of the Montgomery Small Business Center, and van Wyk (personal communication, October 2003), the Director of the Khayelitsha Branch of Learn to Earn in South Africa emphasize that it is the teacher's responsibility to establish the credibility of the future entrepreneurs within the community.



## *Incubators*

Technical entrepreneurial training is best conducted within actual business environments. The equipment, facilities, processes, and materials should mirror actual business conditions (Roth, 1987). However, Roth (1987) pointed out that “(it is) quite difficult to replicate real work situations in a training environment because of safety, economics, equipment or other barriers” (p. 60). Incubators are an excellent solution offering real world environments for business and entrepreneurship training. Business incubators house clients and provide access to necessary business infrastructures; office space, equipment, and personnel. The incubator may provide all micro-enterprises with training facilities as well as entrepreneurship training, human resources, public relations, bookkeeping, receptionist, conference rooms, and conferencing equipment. Students pursuing small businesses in similar industries may be able to purchase expensive equipment together to decrease the cost. The incubator staff may negotiate with outside community industries for clients to lease or use equipment and facilities during downtimes. For example, a tile maker may be able to use spare space in the university’s kiln (Lichtenstein & Lyons, 1996).

van Wyk (personal communication, October 2003), director of the Khayelitsha Branch of Learn to Earn in South Africa, attaches entrepreneurship training programs to the business incubators to provide additional mentoring or training to help students reach their business’s goal for graduation (usually from 18 to 36 months). Buckner (personal communication, September 2003), director of the Montgomery Small Business Center and Lichtenstein and Lyons (1996) describe incubators as resources for providing hands on and application based instructing, as well as the training of additional skills; like

theories of bookkeeping and accounting. The presence of multiple micro-enterprises provides an excellent opportunity for clients to discuss marketing tactics, as well as field testing ideas or products.

Some incubators require the entrepreneurs to meet for brown bag lunches for internal mentoring and networking. This networking within the incubator is especially beneficial when multiple clients in varying stages of development are able to mentor one another (Lichtenstein & Lyons, 1996). Other responsibilities of incubators are to assist in providing and locating funding sources, and maintaining strong networking relationships with community leaders, executives, and bankers.

Frequently, a Business Resource Center is also available to micro-enterprises associated with entrepreneurship training. A Resource Center is a centralized location where resources, information, and training are available and concentrated for the entrepreneurs. The center may house individual micro-enterprises, be a freestanding facility, be connected to a university or other government institution, and/or located within or adjacent to an incubator.

### Andragogy and Pedagogy

While the term Andragogy has been in use for centuries Malcolm Knowles is credited with bringing the term into vogue and common parlance in the United States during the late 1960's (Davenport III, 1987). The word "andragogy" is based upon *aner* (stem *andra*), the Greek word for "man, not boy" (adult) and *agogus* meaning "leader of" (Davenport III, 1987). Knowles (1970) defines Andragogy as "the art and science of helping adults learn" (p. 38), but he explains the word actually implies "more than just

helping adults learn” (p. 38). He actually describes the term as referring to the act of “helping human beings learn, and that it therefore has implications for the education of children and youth” (p. 38) as well. Therefore, andragogy and pedagogy are philosophical terms referring to teaching methodology rather than the age of the learners in a classroom.

Knowles (1970) described four assumptions about the unique characteristics of adults which were foundational to his theory of andragogy and adult learners. First, he wrote that adult learners take a more active role in pursuing education because they are in the process of moving from a state of dependency on others to self-direction as people and learners. Secondly, during this process of maturing, the adult learners are accumulating a growing reservoir of life experiences that help facilitate learning new information. Third, adults seek new information based upon their needs for information to accomplish tasks and growth within their social roles. And finally, adult learners seek immediate application for their information, rather than future application – as children expect – making adults more interested in problem and learner-centered styles of education rather than subject-centered learning (Knowles, 1970). Kennedy (2003) summed up the last two assumptions with, “adults enter learning situations with more specific and immediate intention to apply newly acquired knowledge” (p. 3).

The fact that adults are capable of identifying their specific needs and seek information to meet those needs is probably the most important characteristic to remember when teaching adults. This single proactive action on their part supersedes and underlines all the other characteristics of an adult learner. It is the culmination of several of Knowles’ unique characteristics. Because adult learners have recognized they need to

know something, they are now ready to learn. They have identified a need or a question and are looking for that answer. The fact they arrived at the educational facility is evidence of their self-directedness. This ‘need-to-know’ pushes the adult learner into the active and problem centered arena of the education philosophy. Knowles, Holton, and Swanson (1998) wrote:

Indeed, one of the distinguishing characteristics of many adult learning programs is the shared control of program planning and facilitation. Even in learning situations in which the learning content is prescribed, sharing control over the learning strategies is believed to make learning more effective. (p. 133)

Knowles (1980) envisioned self-actualization as the ultimate goal of education for adults, and that adult educators should facilitate learning and assist adults in developing their potential and becoming self-directed learners. According to Knowles, the teaching method of andragogy would achieve this goal (Darkenwald, 1989; Holmes & Abington-Cooper, 2000). Holmes and Abington-Cooper (2000) describe Knowles’ contrast of andragogy to pedagogy. While andragogy is concerned “with providing procedures and resources for helping learners acquire information and skills” (p. 15), pedagogy, the methodology used by the majority of educators in the United States, is focused on the actual transmission of information and skills.

Because of the self-directed nature of andragogy, it has a tendency to be equated with the more independent adults rather than children. Adult learners are capable of identifying and determining their educational needs, they are also able to assess the information they have received and self-assess whether learning has taken place (Elias & Merriam, 1995). Andragogy tends to be a more active and learner-centered orientation with the emphasis placed on the learners’ life experiences and application of the new

knowledge to their lives. For example, in the andragogical model, the teacher acts as a facilitator and might diagnose learning needs and create an environment for planning activities and prepare procedures for interaction and involvement to meet learning goals (Holmes & Abington-Cooper, 2000).

Pedagogy, on the other hand, views the learner as dependent upon the teacher, and therefore is more teacher and subject centered. In the pedagogical model, the teacher would decide what skills or information would be transmitted, then arrange lessons in a logical sequence to meet the established goals (Holmes & Abington-Cooper, 2000). The teacher would be solely responsible for decisions regarding the lesson plans as well as all decisions about what material to cover, teaching methods to use, and the order the material would be covered, and then responsible for deciding how and when to measure the learning retention of the students (Knowles et al., 1998). Ultimately, the teacher decides whether or not material has been satisfactorily retained and whether or not actual learning has taking place.

Both andragogy and pedagogy are legitimate philosophies of teaching adult learners. The two philosophies are compatible and serve different purposes in the educational process (Holmes & Abington-Cooper, 2000; Knowles, 1980). Rachal (1994) reported that the approaches were not mutually exclusive or dichotomous. Students still pursue their own interests within course objectives in pedagogical classrooms. Teachers adhering to andragogical methods still have established requirements, expectations, and act in additional capacities than mere resource facilitators.

Even Knowles (1980) stated that andragogy was not the only method for teaching adults:

I am at the point now of seeing that andragogy is simply another model of assumptions about learners to be used alongside the pedagogical model of assumptions, thereby providing two alternative models for testing out the assumption as to their 'fit' with particular situations. Furthermore, the models are probably most useful when seen not as dichotomous but rather as two ends of a spectrum, with a realistic assumption in a given situation falling in between the two ends. (p. 43)

### *Adult Learner Populations*

Knowles (1970) explained that adult learners walking into a learning environment have already accumulated a reservoir of life experiences they are able to draw upon to facilitate learning experiences. However, a person is an adult only to the degree he or she possesses the self-concept for taking responsibility for life decisions (Knowles, 1970). Cross (1991) described self-concept as a "function of developmental growth" (p. 239) and not just a byproduct of adult versus child. The perception of taking responsibility identifies adults and forms the basis for andragogical philosophy (Knowles, 1970).

Andragogy is based on the premise that adults have life experiences and are seeking education to increase their competences and achieve their full potential in life. Teachers should consider and utilize learner's current life situations and respective roles (Knowles, 1970). Kennedy (2003) described the differences among adult learners in terms of their attitudes, values, interests, motivation, as well as personality and different physical and cognitive abilities (Knowles et al., 1998) derived from unique life experiences. This diverse population will make a unique audience (Kennedy, 2003) and require the teacher to tailor teaching methodology to these multiple characteristics.

As adults age, they tend to experience similar life stages at various points. For instance, according to Cross (1991) adults in their early 20's begin leaving their parent's

home and attempting to form their identities. Adults in their mid- to late 20's begin establishing life-structures and developing intimate relationships. In the early 30's adults begin looking for stability and security in their lives. Adults begin reassessing their personal values during the late 30's and early 40's, and reconsidering their previous time and energy investments. At this time, adults begin to wonder whether they have an opportunity and time to make changes. In the late 40's and early 50's, adults tend to bring a calming, self-acceptance, and comfortableness to their identity. The 60's brings what Cross (1991) calls a mellowing followed by an "eagerness to share everyday human joys and sorrows" (p. 175) in the 70's. Teachers are called to anticipate and respond to these differing learning needs at differing stages of their adult learners. According to the andragogical philosophy, these multiple life situations within individual learning environments should be utilized to facilitate and reinforce learning activities.

Heimlich and Norland (1994) identified the teacher as the individual, initially, given the responsibility "for identifying what is necessary or appropriate for the learners to gain within that setting" (p. 126). According to Yarzebinski (1992) and Cole and Ulrich (1987), most entrepreneurs: desire achievement, have a strong locus of control, desire to be independent (or are self-directed with a need for autonomy), are energetic and detail oriented, pragmatic problem solvers and contingency thinkers. While entrepreneurship teachers are responsible for identifying needs and activities for this particular audience, additional characteristics of adult learners exist and need to be addressed in the training program. Teachers need to consider that adult learners will have differences in their levels, methods and styles of cognitive processing, personalities, ways of learning, (Nuckles, 1999) and, in the case of entrepreneurship training, their

experiences and skill levels in business. For example, there may be students who are established members of the community, with preexisting networks of business mentors already in place. There may be students who are recent arrivals to the community who are unfamiliar with the business community. Training classes may enroll students who are currently employed or unemployed and have been laid off or downsized recently. There may be students who are professionals as well as lower level employees. There will be older students that are changing careers, and younger students who have been unable to find employment. The class may include college educated, undereducated and potentially illiterate students. All of these adults are enrolling in the entrepreneurship courses seeking the same training, for the same purpose – successful self-employment through micro-enterprises. Heimlich and Norland (1994) identify the teacher as the individual responsible, initially, for “identifying what is necessary or appropriate for the learners to gain” (p. 126) during the entrepreneurship training program.

Professionals, whether they are currently or previously employed business workers, bring specific and identifiable skills to the entrepreneurship training classroom. These professionals are established, and more confident about their ability and aptitude for learning. They may feel internal pressure and motivation to move quickly through the training courses to reach their goal of entrepreneurship. They will probably be more interested in mentorship, problem-solving activities (Smith, 1982) and directing their own learning activities (Houle, 1980). However, despite previous business experiences, these professionals may not possess the necessary skills to begin entrepreneurship training as self-directed learners. Additionally, they may not even be aware of their educational needs in regards to self-employment, and will need direction from the instructor.



There are also participants who have recently experienced life-changing events (Cross, 1991) and are pursuing micro-enterprises as survival entrepreneurs. This population would be similar to what Smith (1982) describes as returning students who have experienced “a major life change, transition, or developmental task” (p. 50) facilitating their decision to pursue entrepreneurship training. While these learners recognize their need to master new material, they usually have personal and familial issues that interfere with their ability to learn. The decision to enroll at the entrepreneurship training facility was the result of a period of ‘life crises’ that cause the participants to reconsider their roles, values, and potential (Mezirow, 1978). While they are committed to what they consider is necessary and important entrepreneurship training, returning students also view the training program as something “likely to produce considerable anxiety” (Smith, 1982, p.50) and stress in their lives. These learners benefit from seeing teachers and instructors as resources rather than additional authority figures, and from learning how to serve as additional resources for the other training program participants. Returning students are also able to assist in the planning and evaluation of their training program (Smith, 1982, p. 51).

The undereducated students may pose a challenge for entrepreneurship instructors because these students have deficiencies in basic skills, and may have learning disabilities. These learners may have low opinions of structured training programs, and are more likely to drop out of training programs than other populations (Smith, 1982). Additionally, they may have previous experiences with formal education that have negatively impacted their ability to successfully assimilate new knowledge.

A pervasive myth exists that low-income or economically disadvantaged and indigenous people are not suited for self employment, equipped to start-up and run a business, and only prepared or able to work for someone else (Gray, 1992). These low-income students may even believe this myth for themselves (Smith, 1982). However, according to Tough (1990), undereducated students, or students with low self-esteem, are equally capable of completing self-directed learning projects as other entrepreneurship students. Undereducated future entrepreneurs may need, according to Freire (1970), to reconsider their role in the world as well as their understanding and experiences within it. While they may experience some difficulty when they begin planning and evaluating their training processes, and may feel anxious about their ability to learn, these students are able to learn to take an active role in their training. The undereducated students' demonstrated ability to learn survival tactics reinforces their ability to adapt to the new training program. These future entrepreneurs have strong internal motivation because of their desire to provide for their families and learn skills to be successful in their micro-enterprises. Ironically, some of the limitations to the learning processes may come from their instructors' inability to empathize or connect with them, or to incorporate previous life experiences into the learning environment (Smith, 1982).

These undereducated adult learners bring additional needs to the classroom. They may have literacy, numeracy or even second language issues that must be addressed with the training (da Silveira et al., 1998). This can add a potential financial and logistical burden to entrepreneurship programs, because of the "illegality of many indigenous small craft businesses and the very small scale" (Harper, 1995, p. 26) in which training classes are effectively run. Instructors need to be prepared to provide additional support for

participants who may be slower at grasping the new concepts than their colleagues or who lack skills necessary for keeping up with them.

The undereducated adult learners also place another burden on entrepreneurship programs. Baldwin (1999) describes the “cultural and economic place-boundness” of many participants, or their inability to leave or market outside of the, very real or imagined, geographic, economic, and cultural boundaries of their community.

### Teaching Philosophy

The values that guide teachers’ lives ultimately shape their approaches to the adult classroom (Day & Amstutz, 2003). Teachers who teach material without a mission, plan or rationale are technicians instead of professionals (Galbraith, 2000). Multiple disciplines suggest a relationship exists between the attitudes, values, beliefs and the decisions and actions that provide the basic framework for an individual teacher’s actions and teaching style (Conti, 2004; Zinn, 2004). Zinn (2004) reported that this “life philosophy is often unrecognized and rarely expressed, though it may be understood implicitly” (p. 40).

Because attitudes, beliefs, and values provide the framework for philosophical orientation, an educator’s personal and previous experiences would also impact the development of the philosophy and teaching style. So adult educators choose how to act when they use lecture or activities to transmit information, demonstrate new skills, facilitate discussion, direct students to additional resources, or lead learners through problem-solving and trial and error practices. The action they chose is grounded in a

philosophy based upon what the educator believes to be appropriate for the adult learners. That philosophy is their philosophical orientation of education (Zinn, 2004).

A teacher has beliefs about how adults learn, how adults should be taught, and what teachers' practice should look like in their classroom. These beliefs about the purpose of education, the role of the adult educator and students, and the understanding of differences among learners are all aspects of an educational philosophy. However, "teachers as a group are not able to clearly state their beliefs about teaching" (Conti, 2004, p. 75) emphasizing the importance of raising their awareness of the implications of their beliefs and actions. By providing opportunities to examine the full impact of how their educational beliefs influence their practical classroom activities, teachers are in a position to determine whether they desire to do something differently in their classrooms. When teachers understand their educational philosophy and its relationship to classroom practice, they are better able to "negotiate the everyday realities of life with adult learners" (Tisdell & Taylor, 2000, p. 6).

Understanding of an educational philosophy provides an "organizing vision for your practice" (Galbraith, 2000, p. 16). It provides both direction and stability. More importantly, it provides "a foundation for critically thinking about your practice, ideas and the political and social structure dimensions" (p. 16). Brookfield (1990) indicated that a working education philosophy provides an answer of "why you're doing what you're doing" (p. 16). Heimlich and Norland (1994) explained:

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)

Workforce and entrepreneurship instructors should allow their philosophies to help develop the training programs (Strom, 1996). Unfortunately, many instructors begin training without having received training themselves in best practices for instructors. Frequently, their teaching methodology and skills are developed “through trial and error” (Roth, 1987, p. 59) because they have not received training on educational philosophies or “characteristics of quality training programs” (Roth, 1987, p. 59). Additionally, some training facilities place more emphasis on survival of the institution rather than spending effort reflecting on adult learner needs (de Chambeau, 1977).

Adult educators have the ability, and typically the freedom, to select and determine content and scope of lesson materials. They are also often able to choose what they believe will be the most effective means of incorporating this material in the classroom setting. Zinn (1994) had noticed that it was the educator’s “personal philosophical orientation (that) seemed to provide a strong basis for making decisions and taking actions in the practice of adult education” (Zinn, 1994, p. 81).

Elias and Merriam (1995) recommended that teachers “choose one particular theory as a framework upon which one builds a personal educational philosophy” (p. 206). Apps (1985), however, found that when teachers identified with one educational philosophy, they can read descriptions and fit their beliefs “into one of these established philosophies...(and) become comfortable with this new found intellectual home and stop questioning and challenging and constantly searching for new positions” (p. 72). Whatever philosophy teachers adopt, the position should be determined critically. The adult educators should “constantly (be) in the process of examining, evaluating and perhaps rejecting or modifying” (Elias & Merriam, 1995, p. 206).

Elias and Merriam (1995) provided a very thorough overview of each of the philosophies along with their historical roots, current programs and practices, the role of educators within the philosophy and a brief description of the methods educators would use to facilitate learning within the educational programs. They established a schema of philosophy that is considered “a helpful device for organizing philosophical thinking about adult education” (McKenzie, 1985, p. 18).

### *Behavioral*

The behavioral philosophy is the only education philosophy to be based upon a psychological system. Educational behaviorists based their philosophy upon the work of early behaviorists such as Thorndike, Pavlov, Skinner, and Watson (Elias & Merriam, 1995; Gredler, 2001). Skinner (1968) theorized that students would be controlled by their environment and emphasized behavior-modification and learning through reinforcement. The philosophy focuses on observable behavior and emphasizes how an environment may shape that behavior. In adult education, behaviorism focuses on skills development and behavior change using programmed instruction and competency-based measurement and testing. Behaviorists believe “that needs and interests are learned from the environment” (Elias & Merriam, 1995, p. 95) and by manipulating that environment, the needs and interests in students can also be changed. The behavioral philosophy is only one of two educational philosophies representing mainstream values (Zinn, 2004). It is so prevalent that “in practice, much of adult education is behavioral” (Elias & Merriam, 1995, p. 237).

A behavioral educator would emphasize job skill acquisition and learning to learn. The educators would downplay competition within the classroom or even individual successes among the students and instead reinforce global interdependence and cooperation (Elias & Merriam, 1995). There is a belief that “individual differences (among students) need to be more efficiently dealt with” (Elias & Merriam, 1995, p. 87).

Because behaviorists believe the ultimate goal of education is to modify behavior for the good of individuals and society, it is the teacher’s responsibility to design environments to elicit and reinforce behaviors which meet these goals and extinguish undesirable behaviors. All teacher-student interactions should be favorable and positively reinforced. The teacher acts as a manager or controller who directs the lesson outcomes using standards based measurement, behavioral based objectives, and reinforcement (Elias & Merriam, 1995).

When learning objectives are behaviorally based and objectively measured, student progress is more readily evident. The objectives also provide clear and definitive guidelines for the instructors, identifying exactly what is to be learned and determining whether the students have learned the material and satisfied the objectives. Advocates of the behavioral philosophy contend that objectives provide a more effective learning environment and that “criterion-referenced evaluation is non-threatening” (Elias & Merriam, 1995, p. 95) to the students. This emphasis on developing and writing objectives may be the reason for extensive influence of behaviorisms on curriculum design and program development within adult education.

The learner, in addition to receiving feedback when she or he practices new behavior, takes an active rather than passive role in learning situations. The environment

is constructed so that specific behaviors are positively reinforced within the learning situation. This is based on the behavioral philosophy that once a behavior is changed and reinforced, the student will behave in the same manner under similar circumstances (Skinner, 1968). The instructional settings include programmed instruction and contract learning.

Behaviorists would extend educational opportunities to as many members of society as possible. In the past, educators have proposed lowering the school entry age and offering additional adult and continuing education courses. While embracing diverse offerings of subjects, the philosophy also encourages planning, monitoring and containing that diversity (Elias & Merriam, 1995).

Adults benefit from behavioral based education systems because behavioral educators recognize that adults start learning from different places in their lives, and are very flexible in the time they allow for meeting the course objectives. This philosophy also makes allowances for different learning styles because the goal is to meet specific competencies, which may be accomplished through a variety of formats. The behavioral education philosophy “is an ideal vehicle for a self-directed individual learning experiences” (Elias & Merriam, 1995, p. 95).

Vocational education has traditionally been competency based, utilizing skills identification, standardization, and certification, and is therefore frequently associated with behavioral philosophy. The behavioral philosophy is also frequently associated with and used in skills training, military and vocational training, or competency-based teacher education (Elias & Merriam, 1995; Zinn, 2004).



## *Liberal*

The liberal educational philosophy should not be confused with current political ideology. Thinking of the philosophy in terms of a Classical or Liberal Arts education may assist in avoiding confusion (Zinn, 2004). Historically, this philosophy has been associated with “elites” (Zinn, 2004, p. 56). Elias and Merriman (1995) identified the focus of liberal education as organizing and transmitting knowledge as well as developing intellectual prowess in the tradition of Socrates and Aristotle (Elias & Merriam, 1995; McKenzie, 1985; Zinn, 2004). Traditionally, the philosophy relies upon dialogues and clarifying conceptual meanings to build knowledge. Western culture still holds liberalism as the predominant educational theory.

The philosophy stresses learning for the sake of learning. It emphasizes liberal arts and literacy in the broadest sense of the ideal: classical humanism, comprehensive education, and traditional knowledge. Until recently, the liberal tradition minimized science because the humanities, religion, and philosophy were all considered superior to science. Liberal educators believed the tradition supplied “the values by which science and technology are to be criticized” (Elias & Merriam, 1995, p. 27). At this time, science and mathematics are recognized as an essential base for continued technological development. However, many liberal educators, while conceding the importance of manual training and science in education, still do not consider the sciences to be part of a classical liberal education.

The adult learner is viewed as a cultured “renaissance person” (Zinn, 2004, p. 72) seeking knowledge. The goal is for a conceptual and theoretical understanding of the subject rather than the “mere transmission and absorption of factual knowledge or

development of technical skill” (Elias & Merriam, 1995, p. 29). Because of the emphasis on theoretical knowledge, a liberal education is considered timeless and applicable across all disciplines. It is assumed the knowledge can be applied to a number of different areas. Skills are derived from experience and the experiences are gained “from an intelligently formed mind” (Elias & Merriam, 1995, p. 31). Frequently, liberal education continuing education programs are marketed for older adults on the assumption that, as an audience, they are best equipped with previous life experiences to utilize and incorporate the new education experiences.

The teacher is viewed as the authority and subject matter expert transmitting all knowledge and directing the entire learning process. The tradition relies heavily on the lecture method because liberal educators believe the teacher is best equipped and qualified to teach a topic directly. Learning situations can also involve study groups, discussions, and critical readings, although “learning through projects, insight, or discovery methods deemphasize the directive role of the teacher and are not endorsed by liberal educators” (Elias & Merriam, 1995, p. 30).

Teachers, while never professing absolute knowledge and expertise in their subject areas, are nonetheless treated with deference based upon their perceived knowledge and subject matter expertise. Liberal educators tend to be critical of competency based teacher-education programs (Elias & Merriam, 1995).

Liberal philosophy can be summed up by saying the primary focus rests in the actual teaching of the disciplines (Elias & Merriam, 1995). This philosophy was the inspiration for the Great Books Program, as well as the Center for the Study of Liberal Education, and Elderhostel (Elias & Merriam, 1995; Zinn, 2004). Typically this

philosophy is not associated with “progress, change, newness, optimism, activity, practicality, efficiency, measurability, and technology” (Zinn, 2004, p. 56).

### *Progressive*

In the early 20<sup>th</sup> century, John Dewey (1916) stressed experimental and problem-solving approaches in education as the basis for the progressive educational philosophy. The progressive education movement was not directly related to social, educational, and political changes from the Progressive Movement period. The period only served as the framework for the historical origins of the educational philosophy as it mirrored societal responses to “industrialization, immigration, emancipation, urbanization, and national maturation” (Knowles, 1977, p. 75). Even though the progressive movement had died by the 1950’s, the education philosophies remain influential today.

Dewey (1916) maintained the focus of education was to educate students in democratic values in order that they might work to improve society. The progressive philosophy focuses on relationships between education and society, promoting well-being and effectiveness within society.

Progressive educators emphasize vocational training, learning by experience, and scientific inquiry. The controlled and critical learning commonly found in scientific disciplines is very important. The needs and experiences of the learner are at the center of the education movement. Learners determine problems and identify solutions in order to develop their unlimited potential through experience based education and skills acquisition (Elias & Merriam, 1995; McKenzie, 1985; Zinn, 2004). Dewey (1938) felt that education should be both liberal and practical, and for work and leisure.

Progressive educators utilize a combination of scientific and experimental methods to discover relevant truths about the student's world. By incorporating an activity method, involving clarification of the problem and development of hypotheses, the "natural inclination of learners to grapple with problems" (Elias & Merriam, 1995, p. 59) is capitalized on. The purpose of education exercises is to use interactive processes to reconstruct learner experiences with students' environments. While teachers are not the sole possessor and transferor of knowledge to the students, they do possess experiences used as suggestions to assist students in planning learning activities.

Progressive educators have the very difficult role of not imposing their own views upon learners. Dewey's earliest writings completely downplayed the role of teachers in instruction, although he later encouraged teacher participation within activities. The activities are based on integrated curriculum, and the teachers evaluate the overall learning process. The resulting practical knowledge coupled with problem solving exercises results in an environment of lifelong learning (Elias & Merriam, 1995).

Because students are responsible for their own learning, the teacher acts as an organizer guiding the students through cooperative learning and should "stimulate, instigate, and evaluate" the educational process (Elias & Merriam, 1995, p. 62). However, this does not mean the teacher merely provides materials without direction to the students.

The common mainstream perspective equates the progressive education movement with new instructional methodologies. Progressive educators stress method development by the teachers for their subjects based upon a needs assessment of the students. Dewey wrote that content laden courses should be centered around problems

relating to the learners' situations (Elias & Merriam, 1995). Although Dewey corrected the popular progressive education expression from "we teach children, not subjects" to say "we teach children and subjects" the emphasis was always on the children (Dewey, 1938).

Education is viewed as a process of socialization and enculturation, and cannot be limited to the confines of a physical schoolroom. Because of the focus on learners, education programs should constantly be adjusted to meet the specific needs and situations adults face. The progressive education philosophy has had more effect upon the development of American adult education than any of the other schools of thought (Elias & Merriam, 1995). This philosophy is behind English as a second language courses, community schools, universities without walls, cooperative extension, vocational education, and lifelong learning (Elias & Merriam, 1995; Zinn, 2004).

### *Humanistic*

Humanism is identified with the period of enlightenment, is closely connected with the contemporary existential movement of autonomous and sacred human beings, and coupled with the humanistic psychology of Sartre and Camus. The philosophy assumes human nature is naturally good with unlimited potential to develop in the most beneficial manner possible. Humanism blends the confidence of human reason and intelligence and appetite for living with individual freedom and integrity against societal bureaucracy and institutionalization (Elias & Merriam, 1995).

Knowles (1970) identified with the humanistic philosophy in his description of the learner-centered andragogical approach to education. Reacting against behavioral

philosophy, humanism emphasizes total development of learners within as natural a learning environment as possible. The humanistic educational philosophy is the second philosophy representing mainstream values (Zinn, 2004), and is the basis for much of the rhetoric and literature surrounding adult education (Elias & Merriam, 1995).

Because of the interest in developing the entire person, particularly the affective and emotional dimensions, the emphasis is not on studying past works (as in the liberal tradition) but rather the dignity and freedom of the adult learner. Self-concept, self-actualization, or the self-evaluation of a person, is fundamental in humanistic philosophy because it determines the learner's ability to develop and grow (Maslow, 1976). Because the learner is viewed as motivated and self-directed, the philosophy conceptualizes learning in terms of freedom and autonomy, cooperation and participation. This is the main reason that humanistic education is equated with adult education. While children may have life experiences, adult learners will have more experiences to use in defining themselves and identifying needs and evaluating growth and development (Elias & Merriam, 1995).

Humanistic education philosophy is learner-centered. The learner is empowered and self-directed, assuming responsibility for the learning activities. The teacher, not necessarily knowing the best for the students, abdicates classroom authority and trusts students will assume the responsibility for their own learning. The teacher becomes more of a facilitator or partner, providing opportunities for and promoting learning without directing the activities or focus of learning. "The emphasis is upon learning rather than teaching and the student rather than the instructor" (Elias & Merriam, 1995, p. 123).

Being a self-actualized individual, the teacher respects the individual students and values and incorporates the unique adult learner life experiences in the classroom.

Learning is seen as a personal endeavor (Elias & Merriam, 1995), so classrooms and learning environments consist of team teaching, encounter groups, group tasks and discussions, experiential and discovery methods. The curriculum focuses on individuality, individualized learning, and self-directed learning projects and there is a lack of arbitrary curriculum (Elias & Merriam, 1995) so the adult learners are able to pursue what they perceive to be “necessary, important, or meaningful” (Elias & Merriam, 1995, p. 126). The purpose of education is self-actualization of the learner rather than the goal of extrinsic learning (Elias & Merriam, 1995; Maslow, 1976).

Humanistic education is seen as a process, and evaluation is based upon self-evaluation as the students themselves will be the best judges for knowledge acquisition. To meet this individual criterion, educators have used pass-fail grading, student reporting and student designed objectives for measurement. This self-evaluation also provides immediate application for the adult learners because they have identified their needs and were able to specify and meet those needs in terms of their own situations and experiences.

Knowles has identified humanistic education philosophy as being particularly suited for adult education (Knowles, 1970). Therefore this philosophy is the basis for many adult education practices, including human relations training, sensitivity workshops, encounter groups, and self-directed learning (Elias & Merriam, 1995; Zinn, 2004).

## *Radical*

This philosophy is also known as the “Reconstructionist,” “Social Change” or “Critical/Emancipatory” (Tisdell & Taylor, 2000, p. 9) educational philosophy. Elias and Merriam (1995) identified the roots of the radical philosophical orientation in Marxist-Socialist, the Freudian Left, and anarchism. While Kozol (1991) is a contemporary supporter of the philosophy, but the philosophy is equated almost exclusively with Freire (1970) and his pedagogy of the oppressed and revolutionary literacy programs, but Leo Tolstoy was a staunch proponent of the radical education philosophy as well (Elias & Merriam, 1995).

This philosophy connects a person’s economic, political, and socio-cultural understanding with her or his education. Radical philosophy utilizes education as a vehicle to develop methods of consciousness-raising intending it to lead to political and social action, and change among the adult learners. The radical philosophy views education as a vehicle for combating oppression and bringing about fundamental changes in society by combining individual action with reflection. The goal is for people to become aware that knowledge equals power and they are able to change history and society radically through their education. In other words, man creates both history and culture, and by giving learners the educational tools, man is able to bring about changes.

A harsh critic of education, Freire was against the use of imposing curricula (Elias & Merriam, 1995) that only emphasized transferring knowledge and utilized rote memorization and regurgitation of facts. He saw this type of banking education where knowledge is “deposited into the heads of learners” (Tisdell & Taylor, 2000, p. 7) as a form of violence (Elias & Merriam, 1995). Instead he proposed the radical philosophy



which offered what he called a “cultural action for freedom” (Elias & Merriam, 1995, p. 156) based upon respect of individuals, teamwork, and dialogue.

In the radical philosophy, learners are autonomous and equal with the teachers. Teachers, who are also students, have positive roles within the learning environment. They are seen as liberators (Tisdell & Taylor, 2000) acting as coordinators and suggest, but do not determine, the direction of the learning environment. Students create curriculum along with their teachers. The goal is to remove teachers from positions of power and control over the adult learners.

Because consciousness-raising is a goal, classwork centers on dialogue and discussion with maximum interaction of all members. The discussions emphasize exposure to real life situations and problems. The learners practice problem-posing and critical reflection in terms of social transformation. Through dialogue, the learners come to realize their current situations, reasons, causes and history in developing their situations, and they identify possible solutions as a group.

This philosophy experienced a revival during the 1960’s with Friere’s culturally based adult literacy programs for oppressed peoples, and the Freedom Schools in the South (Freire, 1970). Radical education philosophy runs counter to mainstream American values (Zinn, 2004), has never been common in American education history and, overall, and has had very little impact (Elias & Merriam, 1995, p. 3).

#### *(PAEI) Philosophy of Adult Education Inventory*

The Philosophy of Adult Education Inventory (PAEI) is a self-reporting, self-scoring, and self-interpreting instrument used to explore the educational philosophical

orientations of adult educators (Conti, 2004). The instrument, developed by Lorraine M. Zinn (1983), assists teachers by providing:

a process of philosophical inquiry which will potentially result in greater effectiveness in selecting instructional content; establishing teaching and learning objectives; selecting and/or developing instructional materials; interacting with learners; and evaluating educational outcomes. (Zinn, 1983, p. 4)

The PAEI is a vehicle for organizing philosophical orientations and assisting instructors think about the actual processes of adult education. Teachers are able to identify their own personal education philosophy while comparing it to other adult education philosophies (McKenzie, 1985; Zinn, 2004). Stenhouse (1985) wrote that teachers “cannot know to what (they are) committed unless (they are) acquainted with a reasonable range of the arguments on either side” (p. 51).

The PAEI was partially based upon the Brostrom (1979) Training Styles Inventory. Brostrom designed his instrument to explore their different beliefs regarding the teaching-learning process and aid teachers in making informed decisions about the varied methods and techniques available for use in the classroom (Brostrom, 1979). Galbraith (2000) described the PAEI as “an excellent way of getting started in the development of an instructional philosophy” (p. 15). The instrument facilitates philosophical development because it labels teachers’ preexisting beliefs, values, attitudes, and practices. Once an educator has identified a philosophy encompassing his or her beliefs and values about adult education, the educator is in a much better position to identify existing contradictions within his or her belief structure, as well as contradictions between beliefs and classroom teaching style (Zinn, 2004). This overview of teaching practice can give teachers:

a sense of stability and direction and a greater understanding of self in relation to the decisions and practices (they) employ in the classroom, training session, workshop or seminar. It serves as a foundation for critically thinking about (their) practice, ideas and the political and social structure dimensions. (Galbraith, 2000, p. 16)

McKenzie (1985) reported that one philosophy would hardly be promoted to the exclusion of another. Nor would one philosophy be considered superior or more correct or proper than another, because other consistent aspects of other philosophies can be combined with the teacher's philosophical orientation. This "gives a certain consistency to (teacher's) theory and practice, yet does not close off the possibility of influence from other viewpoints" (Elias & Merriam, 1995, p. 206). Day and Amstutz (2003) agreed that teachers "holding one set of beliefs does not eliminate the possibility of (their also) holding additional belief sets" (p. 5) and that "all approaches overlap" (Rose, 2000, p. 21). Because all of the statements involve adult education theory and practice, even the directions for administering the PAEI, Zinn (2004) emphatically states, in capital letters, that "THERE ARE NO RIGHT OR WRONG ANSWERS".

### Teaching Styles

To identify one's (teaching) style, the total atmosphere created by the teacher's views on learning and the teacher's approach to teaching must be examined. 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. (Conti, 2004, p. 77)

A teaching style is the "operational behavior of the teacher's educational philosophy" (Conti & Welborn, 1986, p. 20). Tisdell and Taylor (2000) reported that when instructors examine and compare their actual teaching style in the classroom to what they believe about adult education; their beliefs about education, or philosophy,

actually informs their practice. Teachers' actual classroom practice, in turn, informs their philosophy.

Teachers have a dominant teaching mode that is reflected through one of two teaching styles in their classrooms; a teacher centered or learner centered style (Conti, 1985). The labels describe "identifiable sets of teacher behavior" (Conti & Welborn, 1986, p. 7) that manifest from aspects of the teacher's personality and education philosophy (Fischer & Fischer, 1979). These styles tend to develop slowly and "serve as useful tools for understanding, explaining, and defining important aspects of the teaching-learning process" (Fischer & Fischer, 1979, p. 254).

Every teacher has distinct qualities (Conti, 2004) that are their unique characteristics. These qualities remain constant through any learning situation, regardless of the lesson content or curriculum (Fischer & Fischer, 1979). A teaching style is not the set of strategies a teacher might employ to meet individual curriculum objectives, but rather the method one tends to "gravitate toward" (Smith, 1982, p. 54) in any learning situation.

Teachers base their decisions about teaching style upon their beliefs. This means that teachers must believe there are different styles of teaching, and they have the ability to select one style over the other based upon the "appropriateness in a given situation" (Spurgeon & Moore, 1997, p. 13). Fitzgibbons (1981) explained that teachers make decisions about the method to use, or philosophy to incorporate, because they believe that philosophy to be the best method available, or the best method considering the alternatives. The philosophy selected reflects the teacher's belief that the philosophy is a good or correct choice for the learning environment and situation.

Researchers (Conti, 1985; Hughes, 1997; Martin, 1999; O'Brien, 2001; Zinn, 2004) repeatedly found teaching style has an effect on learner achievement. However, Zinn (2004) stated teachers often find it “difficult to take time out from *doing* adult education, in order to think about why you do what you do” (p. 56). In some cases, the educators have already determined their practice (or teaching style) without ever considering what they believe about the process of educating adults (Zinn, 2004). And frequently, teachers discover their philosophy, or what they believe about adult learners, is not actually reflected in the actual successful classroom practice teachers utilize with adult learners (Price, 2000, p. 5).

These are not the issues that need to be of primary concern for educators. De Chambeau (1977) explained in matters of education, “the question of ‘why’ (something is done) must precede questions of ‘what’ or how” (p. 308). In short, teachers, as philosophers of education, should be considering “general principles” (Elias & Merriam, 1995, p. 3) involved in educating adult learners, the:

aims and objectives of education, curriculum or subject matter, general methodological principles, analysis of the teaching-learning process, and the relationship between education and the society in which education takes place. (Elias & Merriam, 1995, p. 3)

Conti and Welborn (1986) explained that teachers need to carefully examine their behavior and subsequent actions in the classroom as well as the consequences of those actions for the learners. This examination is important because teachers need to practice a teaching style that treats adult learners respectfully and enables them to learn and meet their objectives for the learning situation.

## *Self Directed Learning*

Andragogy promotes the idea that adult learners “have a self-concept of being responsible for their own lives and expect others to treat them as being capable of self-direction” (Knowles et al., 1998, p. 123). Adult learners have unique personal life experiences they bring to every learning environment and are able to “assume increasing responsibility for the direction of their learning activities” (Cross, 1991, p. 238). Adult learners seek out these learning environments or opportunities because of life challenges they encounter (Galbo, 1998) and “usually know what they need to learn” (Cross, 1991, p. 193). Glenn (2000) described adult learners as:

saying ‘no’ to lecture and ‘yes’ to self-directed learning opportunities, interactive environments, multiple forms of feedback, choice of assignments, and use of varied resources to create personally meaningful educational experiences. (p. 14)

Ferraro (2000) described self-directed learning as “an important component of adult learning” (p. 7). Knowles, Holmes and Swanson (1998) agreed that while self-concept is a major characteristic and component of learner-centered andragogy, it is not the ultimate goal of andragogy. Personal growth is a goal in adult learning (Caffarella & Merriam, 2000), and the self-directed perspective of adults is central and necessary for most meaningful learning in adult education (Elias & Merriam, 1995). Teachers wishing to facilitate this self-directed atmosphere must maintain classrooms which are “supportive, cooperative, informal, and in general, cause adults to feel accepted and respected” (Elias & Merriam, 1995, p. 132).

Self-directed learning does not mean to learn without a teacher or instructor or without any input and direction. While the teacher is still responsible for designing and

managing the learning process and serving as a facilitator for resources, they hand the actual control of the learning process over to the learner (Knowles, 1975). The focus shifts onto the adult learner who plans, carries out, and evaluates the learning situation (Kerka, 1994). To be self-directed means to be able to determine needs and manage the acquisition process. Kennedy (2003) stated the “hallmark of the adult education philosophy is to include learners in the planning and implementation of their learning activities” (p. 2). Kerka (1994) described self-direction as the psychological control learners possess within their learning environments.

Kerka (1994) described the differences in adult learners’ ability to be naturally self-directed. It is true that adults’ capability for self-direction in learning environments varies widely within classrooms. Even within the same learning environment, one student may be more dependent and need more direction and support than another more autonomous student requires for the exact same activity. This does not invalidate the ability of the former learner to accomplish the tasks and learn the skill. Giving the student the necessary support and direction early in the activity should enable him or her to move into a more independent and self-directed state of learning.

### *Learner-Centered Teaching*

A learner-centered teaching style focuses on the individual student rather than on the information. The material presented in the learning environment is “conducive to students’ needs” (Conti, 2004, p. 78). A learner-centered teacher allows students to be proactive, leaves the responsibility for knowledge acquisition with the student, and allows students to self-evaluate and determine whether lesson objectives are achieved.

The actual learning activities focus on “the acquisition of problem–solving skills” (Conti, 2004, p. 78). Adult education literature advocates philosophies and teaching styles focusing less on teachers as classroom experts and instead viewing adult learners as the “co constructors of knowledge, partially rooted in their own life experience” (Tisdell & Taylor, 2000, p. 7).

In learner-centered teaching, the instructor is totally oriented to the adult learner. This means that all of the classroom behaviors, as well as the teacher’s attitudes, beliefs and values will be about the student (Nuckles, 1999). Glenn (2000) described the teacher as more of a facilitator than a lecturer who is released from the responsibility of “being the fount of all knowledge” (p. 12).

Knox (1986) described the goal for learner-centered teachers as empowering their students and guiding the learning process. These goals need to be incorporated during the development of the training program and its curriculum. It is the responsibility of the instructor to identify the actual skills needed by the students based on the entrepreneur’s existing business knowledge and skill level, and then move the students through training to the goal of successful entrepreneurship. This customizing of the program allows entrepreneurship teachers to adjust curriculum to meet the specific situation and needs of the students (Lichtenstein & Lyons, 1996) ensuring the training program exists “in a context of organizational responsiveness to learners” (Nuckles, 1999, p. 6).

According to da Silveira et al. (1998), a learner-centered teacher guides and assists students in building their own knowledge rather than merely explaining concepts. A learner centered teacher asks questions without supplying answers. The teacher cannot



provide the answer or formula for solving a problem, but must criticize methods and results while suggesting several options.

### *Teacher-Centered Teaching*

The other teaching style, a teacher-center approach is “currently the dominant approach throughout all levels of education in North America” (Conti, 2004, p. 77). The teacher centered approach assumes students are passive and react to environmental stimuli. It is the teacher’s responsibility to design an environment reinforcing desirable behavior and to determine whether any learning, “defined as a change in behavior” (Conti, 2004, p. 78), has occurred.

Most teachers have been found to teach with the same teaching style they experienced in the classroom, and in the same teaching style they learn (Brown, 2003). Since teacher-centered, lecture-based teaching is the dominant style, and teachers have been successful under this particular teaching style, it is understandable the style is frequently replicated (Brown, 2003). When training is content related, an instructor-led classroom is effective in training situations. However, learner-centered styles are more effective when the training is contextual, or within a “physical, emotional, and intellectual environment that surrounds an experience and gives it meaning” (Caudron, 2000, p. 55).

It is important to remember there is overlap between these two orientations. Tisdell and Taylor (2000) reported that many teachers “straddle several orientations, each emerging to the fore as the teaching context shifts and changes” (p. 9). Knowles (1979) explained that even though andragogy was an approach to teaching, was on a continuum

with pedagogy and would be useful with adults, generally andragogy was better for adults and pedagogy for children. Conti (1985) found that a pedagogical teacher-centered style was, in some situations, more effective for adult learners. Therefore, instead of educators arguing about which style is best, they should be discussing which is more appropriate for the situation.

*(PALS) Principles of Adult Learning Scale*

Knowing your preferred style is the beginning of learning how to use the best elements of other styles so that you are not tempted to construct or re-construct teaching situations so that they fit your preferred style. One of the universal elements of an integrated style is that it is responsive. (Nuckles, 1999, p. 13)

Conti (1982) developed the Principles of Adult Learning Scale (PALS) instrument to measure the degree “adult education practitioners accept and adhere to the adult education learning principles that are congruent with the collaborative teaching-learning mode” (Conti, 1982, p. 135). The PALS is a self-reporting, self-scoring, self-interpreting instrument that “consolidates many learning principles widely advocated in the literature” (Conti, 1982, p. 145) making it a useful tool for studies researching “learning efficiency in specific teaching-learning modes” (p. 145). The survey instrument measures both specific activities a teacher may practice within the classroom and the frequency with which those actions are practiced (Conti, 2004).

Teachers who have an opportunity to assess their own teaching style are in a much better position to address questions about their educational beliefs and philosophy. For example, they are able to investigate what they believe is the nature and role of the adult learners and the teacher within a classroom. Teachers can identify what they

consider their mission in education or the purpose of the curriculum. They are also in a position to determine if their beliefs are synchronous with the philosophy of the training program and facility (Conti, 2004).

Teaching style cannot be identified by looking at individual actions, but rather by examining the “total atmosphere created by the teacher’s views on learning and the teacher’s approach to teaching” (Conti, 2004, p. 77). While the PALS measures “strength of the teacher’s support for (a particular teaching) style” (Conti, 2004, p. 79) it does not indicate the “the specific classroom behaviors that make up (that) style” (Conti, 2004, p. 80). Merely knowing the style an educator uses does not determine the effectiveness of the teaching style and it is only by reflecting critically upon actions in the classroom that educators can determine the effectiveness and appropriateness of their teaching style (Conti, 2004).

The PALS also reflects teacher attitudes towards certain actions within the classroom. The instrument can identify whether teachers tend to: use learner-centered activities, personalize instruction for learners, relate activities to students’ previous experiences, assess student needs, favor setting up positive climates for learning environments, allow students to develop evaluation materials, and determine whether teachers see themselves as facilitators or merely information providers within the classroom environment.

### Summary

Workforce education and entrepreneurship training is available in a variety of institutions and facilities. Some are attached to universities or community colleges, others

are freestanding incubators or business resource centers, as well as government sponsored or mandated entities. These facilities provide important opportunities for economic growth in economically distressed or depressed areas, by training entrepreneurs to operate micro-enterprises. The success rates of these micro-enterprises is directly related to the training the entrepreneurs receive. Literature and best practices both indicate that self-directed and learner-centered, hands-on, application oriented teaching styles are the most effective (Lichtenstein & Lyons, 1996).

The teacher's attitudes, beliefs and values comprise the life philosophy which in turn dictates the educational philosophy, or the educators view of what is appropriate for adult learners in a learning environment (Zinn, 2004). According to Elias and Merriam (1995) there are five prevalent educational philosophies; behavioral, liberal, progressive, humanistic, and radical. These philosophies each state the educational process, as well as learner and teacher roles and responsibilities in differing ways. While all five of the philosophies are valid, and there is no right or wrong philosophy, there are characteristics of each philosophy that are inconsistent with the other philosophies.

The educational philosophy also impacts the instructor's teaching style (Conti, 2004). A teaching style is comprised of the distinctive qualities the teacher possesses and displays regardless of the content or curriculum. There are two styles, the teacher-centered and learner centered, and while teachers may practice qualities of both styles, they tend to gravitate towards one style over another. Even though research continues to investigate impacts of different teaching styles in various learning situations, it is ultimately the teacher's responsibility to improve lesson delivery to meet needs for the individual learners (Conti, 1985).

## CHAPTER 3

### METHODS

#### *Introduction*

The purpose of this study was to identify individual education philosophies and teaching styles among workforce education and entrepreneurship instructors within the State of Alabama 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 education and entrepreneurship instructors within the State of Alabama?
2. What differences exist in teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?
3. What relationships exist between the philosophical orientations and teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?

## Design

Two published surveys, the PAEI and the PALS, were appropriate instruments to use for measuring the philosophies and teaching styles of workforce education and entrepreneurship instructors in Alabama. These survey instruments were questionnaires, which according to Creswell (2003) describe “trends, attitudes, or opinions of a population by studying a sample of that population” (p. 153). Because these particular instruments were self-scoring and self-reporting, they were easy to administer to the participants through the mail, and the inclusion of written directions decreased any need for the researchers’ presence at the testing location.

Surveys describe the sample participants in terms of their attitudes at the time of research and allow for an investigation of relationships in real life situations. The survey instrument is an effective tool for this type of measurement because of the convenience, economy of design and ability to rapidly collect and manage large amounts of data. Because of the ease of data analysis, the researcher is able to obtain representative information from a larger sample than by interviewing and observing, and attribute the results to an even larger population (Creswell, 2003).

## Population

According to the National Business Incubator Association (2006) Alabama offers more incubator facilities than most of the surrounding states (Arizona, Louisiana, Mississippi, Tennessee, Georgia), with the exception of the Atlanta area in Georgia. Florida also had a high number of incubator facilities, primarily connected with the universities. There are several highly respected incubator facilities located around the

larger cities in Alabama, connected with the Chamber of Commerce, as well as prominent universities (National Business Incubator Association, 2006). Several of the incubators operated satellite facilities and Business Resource Centers at other locations, and several of the instructors worked in multiple locations. Overall, 29 entrepreneurship instructors employed in 20 incubator entrepreneurship educational facilities offer entrepreneurship training to adults within the State of Alabama were identified. A census study was conducted with all 29 of the entrepreneurship instructors.

According to the Alabama Department of Postsecondary Education (2006), there are 25 facilities offering workforce education and training. These facilities include workforce education programs within community colleges across the state, such as: GED programs, skills training for unemployed workers, and Career/Technical Education and Training for Business and Industry Programs including training in Workkeys, Child Care, and Technical Education. There were also 36 Focused Industry Training Programs operating out of those community college facilities across the state (Alabama Department of Postsecondary Education, 2006). Because of the large numbers of workforce education instructors, a decision was made to contact a random sample of this population.

Gay and Airasian (2000) defined random sampling as a sample selection process where every individual within the population has an “equal and independent chance of being selected” (p. 123) for inclusion in the sample and 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). The directors of each facility was requested to randomly select five instructors from their facility and distribute the surveys among them. There is no way to discover the criteria the directors may have used

in randomly selecting their instructors to complete the questionnaires, or whether there was any bias in the selection process. However, one of the characteristics of random sampling is that the choice or selection of participants was completely removed from the researcher's control. This criteria was met by requesting the directors to randomly distribute the survey instrument sets.

Because entrepreneurship training incorporates some of the remedial aspects of workforce education, these two populations of instructors were considered complementary to the study. Frequently, entrepreneurship training involves basic literacy and numeracy, as well as lower level business skills training and higher level entrepreneurial skill training. The same methods for effectively teaching entrepreneurial skills would also be effective in teaching workforce education skills.

#### Philosophy of Adult Education Inventory (PAEI)

Zinn (1983) developed the Philosophy of Adult Education Inventory (PAEI) as an assessment instrument to assist in identifying the extent to which an educator adheres to or values a particular educational philosophy (McKenzie, 1985; Zinn, 2004). This assessment tool includes 15 questions with five statements stems each, relating to the five educational philosophies (for a total of 75 items). The questions asked participants their opinions about education issues and asked them to rate their level of agreement with the philosophical statements. Based upon the answers provided by participants, the scores tend to indicate the educational philosophy which most closely aligns to the beliefs of the instructor. Because it rated opinions of participants, there were no right or wrong answers, nor was one philosophical orientation considered superior to another.



### *Description*

The questions on the instrument related to the individual participant's philosophical orientation and asked about educational philosophy, planning educational activities, beliefs about learner attitudes and interests, instructor roles, and evaluation techniques. All questions contained multiple ideological directions and implications. The student answered according to personal beliefs, opinions, and practices.

The PAEI consists of 15 incomplete sentences which make up the main stem items which address elements of education: purpose of adult education, how adults learn, teacher role, beliefs about learners, and teaching methods. Following each of the 15 items were five statements which were potential conclusions for the stem item. These options reflected characteristic perspectives related to that item: behavioral (B), liberal (L), progressive (P), humanistic (H), and radical (R).

The respondent selected the degree of agreement with the statement according to a 7-point Likert scale ranged from (1) Strongly Disagree to (7) Strongly Agree with a (4) Neutral point. The responses were summed and the result, ranging from 15 to 105, reflects the respondent's agreement with each of the philosophical orientations. An examination of all five scores should indicate the prevailing adult education philosophy of the instructors (McKenzie, 1985; Zinn, 1994, 2004).

The participant transferred the scores for each of the 75 questions to a separate recording sheet. The sum value of the grouped responses determined the score. The highest score describes the philosophy the teacher is most likely to agree with and use while teaching. The lowest score is the philosophy most unlike the educator's beliefs about education. Scores of 95 - 105 would indicate a strong agreement with the

philosophy, and a score of 66 - 94 an agreement with the philosophy, while a score below 55 would indicate a disagreement, and a score from 15 - 25 a strong disagreement. Scores falling between 56 - 65 indicated a neutral perception of the philosophy. Because of overlap among the philosophies, it is possible for educators to have two philosophies with high scores. However, combinations of three or more close and high scores may indicate a need for teachers to closely examine their beliefs for innate contradictions (Zinn, 1983).

### *Validity*

Because questionnaires and surveys are forms of measurement, the same standards and levels of validity and reliability are required that apply to any other form of research measurement (Gall, Borg, & Gall, 1996). Validity is defined as the “appropriateness, meaningfulness, and usefulness of the specific inferences made from test scores” (Gall et al., 1996, p. 249). It is the degree any test measures what it is supposed to measure, and the appropriateness of the inferences made from the scores or results of the test.

The degree to which test items measure the particular construct it was intended to measure constitutes the construct validity of scores from the test. The PAEI’s construct validity was statistically tested by factor analysis. Zinn (1983) described the validation process of the instrument:

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 factor 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)

The degree 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).

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 an instructors' adult education philosophy and compare with other prevailing philosophies for the field (p. 154).

Gall, Borg and Gall (1996) describe two types of criterion-related validity. The first, predictive validity, measures the degree the results, or predictions, of the instrument are later confirmed by the test participants. The second, concurrent validity, looks at whether an individual's scores on the instrument in question correspond to scores on another established or existing test measuring the same constructs. However, the PAEI was not documented for criterion-related validity (McKenzie, 1985).

### *Reliability*

Gall, Borg and Gall (1996) define reliability as 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. Zinn (1983) reported that “Pearson product moment correlations were used to establish estimates, internal consistency and test-retest stability with individual response options, items, and overall scales” (p. 150) which “showed a tendency toward moderately high stability of the instrument” (p. 154). Alpha coefficients from .75 to .86 on each of the five scales (behavioral, liberal, progressive, humanistic and radical), and were considered measures of moderate - high reliability ( $r$  of .48 to .83). 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 self-administered, self-reporting, and self-scoring instrument that most participants complete in less than 15 minutes. The instrument measures the frequency an educator practices one teaching style over another. Scores reveal a tendency towards a learner-centered or teacher-center style. While educators may practice elements from both styles, they tend to prefer one style over the other (Conti, 2004).

### *Description*

The Principles of Adult Learning Scale (PALS) instrument contains 44 statements based on theoretical and general principles from adult education literature and are

couched in behavioral terms familiar to adult educators. Twenty-two items are positively stated and were arranged randomly throughout the instrument. Items on the survey instrument describe several different classroom activities and ask the teacher to gauge how frequently she or he practices those actions. Teachers select the response from a six-point Likert-type scale (0= Always, 1= Almost always, 2= Often, 3=Seldom, 4= Almost Never, 5=Never). The sum value of the responses indicates the score and “strength of the teacher’s support for (that) style” (Conti, 2004, p. 79).

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 (Conti, 2004). According to Conti (2004) 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” (p. 79) 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” (p. 79). Scores falling beyond the second deviation (< 105 and >186) “indicate an extreme commitment” (p. 79) to one particular style.

### *Validity*

The PALS instrument was field-tested by full-time adult basic education teachers in Illinois public school programs. The first phase of testing asked participants to identify items that appeared to support collaborative education and those that did not. Because the items on the instrument were based upon literature that supported collaborative education models, participant total scores were used as criterion measures of their support for the

model. Pearson correlations were used to determine construct validity by measuring relationships between items and scores for participants (Conti, 1985).

Two juries of adult education practitioners testified to the construct validity. Seventy-eight percent found the concepts of the 44 item instrument were congruent with adult education literature and principles supporting the collaborative mode (Conti, 1985).

A comparison of the PALS scores and scores on the Flanders Interaction Analysis Categories (FIAC) was made to confirm the criterion-related validity. The FIAC is a system that observes and measures whether classroom actions are responsive and congruent with the collaborative model. The comparison was based upon the identification of imitation and responsive actions on items between the two instruments. Pearson correlations between the PALS and each FIAC ratio score showed a positive correlation of .85 for the teacher response ratio, .79 for the teacher question ratio, and .82 for the pupil initiation ratio (Conti, 1982, p. 139).

### *Reliability*

Twenty-three adult basic educators participated in a test-retest method used to establish the validity of the instrument. Pearson correlation yielded a reliability coefficient of .92. (Conti, 1982).

### Procedures

A cross-sectional survey approach involves a one-time collection of data from the selected participants while a longitudinal study collects data multiple times over a period of time (Gay & Airasian, 2000). Because the goal was to identify the current beliefs

regarding adult educational philosophy and the teaching style of workforce education and entrepreneurship instructors rather than examining the development of the beliefs and styles, the cross sectional approach was more appropriate. A one-time mailing began January 20 and concluded March 31, 2006.

Packets were assembled to be mailed to the perspective respondents. The packets contained copies of each survey instrument printed on white paper, a short demographic questionnaire, a letter of information and consent, a self-addressed stamped return envelope, directions, and score sheets for each survey instrument. The score sheets were provided in the packets in case the participants were interested in scoring their tests for their own information, by the researcher scored every instrument used in data analysis. The two survey instruments, the PAEI and PALS, were coded according to the facility to aid in tracking returns and in making follow-up contacts to increase the response rate, as well as determining that the pair of instruments was completed by the same instructor.

These survey instrument packets were sent to each of the identified 29 entrepreneurship instructors. An additional 119 survey instruments were mailed to the directors of the 25 educational facilities providing workforce education and training to the adults through the local community colleges. The 119 packets were distributed as follows: five packets were sent to the 23 larger schools, and two packets were sent to the remaining smaller schools. The directors of the 25 workforce education facilities received packets containing their respective number of survey packets, and an instruction letter asking them to select the appropriate number of instructors and randomly distribute the survey instruments among the workforce education instructors.

Each survey packet included a stamped return envelope and instructions requesting the completed surveys be returned by mail. Nine responses were received from the 29 entrepreneurship instructors (31%), and 99 responses were received from the workforce education instructors (83%). Follow-up telephone calls were made to the 29 individual entrepreneurship instructors who had not returned the surveys after two weeks. Calls were also made to directors of the workforce education training facilities that did not return any survey sets after two weeks.

While there was a chance participants would change their answers between scoring and returning the instrument, thus impacting their philosophy rating; this was very remote and highly unlikely. Since there were no right or wrong answers, nor a hierarchy among the philosophies, there was little to no incentive for participants to make those changes. Furthermore, participants perceived their philosophy in positive terms, and would not wish justify or alter their answers.

### *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*

Because the PAEI is not standardized, and there is no population or test mean, descriptive analysis and frequencies were used to identify the predominant philosophical beliefs of the instructors. The surveys were separated into two groups; Group A, the nine entrepreneurship instructors, and Group B, the 99 workforce education instructors. There was also an examination of patterns of agreement with the philosophies between the groups as well as the demographic independent variables. These variables included gender, degree obtained, length of employment, length of experience training adults, and facility type.

One sample T-tests were used to determine whether there was statistical significance in the PALS scores for the instructors. T-tests were run on the entire batch of received surveys, the entrepreneurship instructors, Group A, and the workforce education instructors, Group B. Additionally, t-tests were run according to several of the demographic independent variables.

## Summary

Two survey instruments, the PAEI and the PALS, were mailed to 29 entrepreneurship instructors and 119 workforce educators in Alabama for a cross sectional survey study of philosophies and teaching styles. There was a sufficient return rate of the survey instruments from the 99 workforce education instructors (83%) and nine entrepreneurship instructors (31%), resulting in an overall return rate of 108 surveys from 148 sets mailed out to instructor locations (73%). This return rate supplied enough survey sets for data analysis in this descriptive study.

The PAEI is a one-time reading of adult educational philosophic orientation and agreement with prevalent educational philosophies; behavioral, liberal, progressive, humanistic, and radical. The PALS identifies the frequency to which an instructor practices one teaching style over another within their classroom: either a teacher or learner-centered. Because literature indicates the teacher's educational philosophy impacts their teaching style, the study and analysis was seeking to determine whether differences existed, and what the relationships were within the population of entrepreneurship and workforce education instructors.

## CHAPTER 4

### RESULTS

#### *Overview*

The purpose of this study was to identify individual education philosophies and teaching styles among workforce education and entrepreneurship instructors within the State of Alabama 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 education and entrepreneurship instructors within the State of Alabama?
2. What differences exist in teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?
3. What relationships exist between the philosophical orientations and teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?

This descriptive study examined the Adult Education philosophies and teaching style of workforce education and entrepreneurship instructors in the State of Alabama. A

total of 148 instruments were mailed out and 108 were returned (72.9%). Twenty-nine of the survey instrument packets were mailed to entrepreneurship Instructors and 119 to the workforce education instructors. Entrepreneurship instructors returned nine completed survey instruments (8.3%), and Workforce instructors returned 99 (91.6%).

Of the returned survey instruments, 80 of the Instructors were female (74%) and 28 were male (26%). Fifteen of the male Instructors (13.8%) have been employed at their facilities for less than 5 years, while five (4.6%) been employed less than 20 years and eight (7.4%) employed longer than 20 years. Fifty of the female Instructors (62.5%) have been employed at their facilities for less than 5 years, 16 (20%) employed for less than 10 years, while 11 (13.7%) have been employed for more than 10 years.

Fifty-four of the participants (50%) reported they had an education degree or certificate. Seven participants (6.4%), primarily entrepreneurship Instructors, reported MBAs. Overall, there were 91 participants (84.3%) with college degrees in a variety of disciplines; 39 (36.1%) with Bachelors degrees, 49 (45.4%) with Masters, and three (2.7%) with a Doctorate.

#### PAEI

The PAEI consists of 15 items written as incomplete sentences with five options for the participant to select their level of agreement or disagreement with the statements. The questions relate to purpose of adult education, how adults learn, teacher role, beliefs about learners, and teaching methods, educational philosophy, planning educational activities, beliefs about learner attitudes and interests, instructor roles, and evaluation techniques. The scores of the instrument identify participant's level of agreement or

disagreement with the educational philosophies: either behavioral (B), liberal (L), progressive (P), humanistic (H), and radical (R). The participant's responses are summed and the result, ranging from 15 to 105, reflects the respondent's identification with each of the philosophical orientations. Examining all five scores provides an indication of the prevailing adult education philosophy (McKenzie, 1985; Zinn, 1994, 2004).

The highest score describes the philosophy the teacher is most likely to agree with and use while teaching. The lowest score is the philosophy most unlike the educator's beliefs about education. Zinn (1983) outlined scoring and interpretation for the PAEI as follows, scores of 105 - 95 indicate a strong agreement with the philosophy, 94 - 66 an agreement with the philosophy, 65 - 56 indicate neutrality toward the philosophy, 55 - 26 a disagreement, and a score from 25 - 15 a strong disagreement. Because there is no standardization in the PAEI scores, Instructors holding very similar beliefs may have quite varied scores. Therefore, by looking at the broad categories of scores (strongly agree, agree, neutral, disagree, strongly disagree) it is possible to look at trends of beliefs among instructors and Instructors.

### *Results*

There were no statistically significant results when the PAEI scores were run by type of instructor, other demographics or by paired samples. The examination consists chiefly of descriptive statistics investigating the reported philosophical beliefs of both the entrepreneurship instructors and the workforce education instructors. In order to examine the survey results of both groups of instructors, the entrepreneurship instructors were combined and constitute Group A, while the workforce education instructors were

combined and constitute Group B. The scores for the individual educators were summed for each of the five philosophies, and the mean, Standard Deviation, and range were identified for each philosophy (B = behavioral, L = liberal, P = progressive, H = humanistic, R = radical) (see Table 1).

Table 1

*Overview of PAEI Scores for Both Groups*

	B	L	P	H	R
Mean	85.64	75.71	85.29	71.49	71.23
Standard Deviation	10.52	8.57	10.54	11.83	12.44
Minimum	39	39	34	37	27
Maximum	104	94	102	101	95
Range	65	55	68	64	68

*N = 108*

*Entrepreneurship Instructors (Group A)*

Of the 29 survey instrument sets mailed to entrepreneurship instructors, nine were returned (31%). In conducting follow-up phone calls to increase the return rate, three different entrepreneurship facilities revealed their decision to have only one person complete a survey instrument at the facility rather than each teacher, as instructed, because “all the answers would be the same.”

Of the nine returned survey instruments, eight of the respondents were male. Also, eight of the respondents identified their workplace as an incubator, the ninth

identified it as a Training Program. When the survey instruments were scored, there was a range of 17 points between the Means: 80.2 (behavioral), 77 (liberal), 85.3 (progressive), 69.9 (humanistic), and 68.3 (radical) (see Table 2).

Table 2

*Overview of PAEI Scores for the Group A*

	B	L	P	H	R
Mean	80.22	77	85.33	69.89	68.33
Stand Deviation	9.82	7.84	5.36	6.01	10.33

*N = 9*

The highest philosophy scores for the nine entrepreneurship instructors ranged between 79 and 98 with participants identified with the progressive philosophy (66.7%), very influential to adult education and frequently equated with vocational education. The instructors also identified with the behavioral philosophy (33.3%). The lowest scores ranged between 57 and 74 and identified radical (66.7%), humanistic (33.3%) or liberal (11.1%) as the philosophies they least identified with. One participant indicated they identified least with both the radical and liberal philosophies (see Table 3).

Table 3

*Individual PAEI Scores for Group A*

Participant #	B	L	P	H	R
1	74	73	83	73	62
2	86	86	93	65	78
3	91	89	90	66	63
4	98	79	83	61	57
5	73	70	80	79	70
6	74	73	83	73	62
7	67	64	77	74	58
8	79	79	90	74	80
9	80	80	89	64	85
Mean	80.22	77	85.33	69.89	68.33

*N* = 9

None of the entrepreneurship instructors in Group A reported scores reflecting disagreement with any of the philosophies when scores are measured using Zinn's (1983) criteria; 105 - 95 indicates strong agreement, 94 - 66 agreement, 65 - 56 neutrality, 55 - 26 disagreement, and 25 - 15 strong disagreement. In fact, two Instructors (22.2%) had scores indicating they agreed with all five philosophies, and five Instructors (55.6%) agreed with four of the five philosophies. Two participants (22.2%) showed neutrality toward two of the philosophies. Only one instructor had a score indicating a strong



agreement with any single philosophy (behavioral). The lowest scores still fell within the agreement or neutral range in every case for each participant (see Table 4).

Table 4

*Agreement in PAEI Scores Within Group A*

	Participant Number								
	1	2	3	4	5	6	7	8	9
Strong Agreement 95 – 105	0	0	0	1	0	0	0	0	0
Agreement 66 – 94	4	4	4	2	5	4	3	5	4
Neutral 56 – 65	1	1	1	2	0	1	2	0	1

*N* = 9

Five participants in Group A indicated they were neutral toward the radical philosophy (55.6%), and three towards the humanistic philosophy (33.3%), and only one (11.1%) toward the liberal philosophy. The rest of the scores reflected agreement with all five of the philosophies: progressive (100%), liberal (88.9%), behavioral (88.9%), humanistic (66.7%), and radical (44.4%). Only one participant indicated strong agreement with the behavioral (11.1%) philosophy (see Table 5).

Table 5

*PAEI Distribution According to Philosophical Agreement Within Group A*

	B	L	P	H	R
Strong Agreement 95 – 105	11.1%	0	0	0	0
Agreement 66 – 94	88.9%	88.9%	100%	66.7%	44.4%
Neutral 56 – 65	0	11.1%	0	33.3%	55.6%

*N* = 9

In Group A, three of the entrepreneurship instructors (33.3%) had Bachelors degrees in Education, four reported Masters in Business degrees (44.4%) and the two remaining instructors received a Masters degree in another area of study (22.2%). The participants with education degrees tended to have higher scores in the behavioral, liberal, and progressive philosophies, and the lowest scores with the humanistic and radical philosophies. Participants with MBAs had their highest scores of agreement with the progressive philosophy (see Table 6). The participants with degrees in other areas of study tended to have lower agreement scores in all the philosophies.

Table 6

*Group A Mean PAEI Scores by Obtained Degrees*

	B	L	P	H	R
MBA ( $n=4$ )	75	77	85	71	71
Bachelor Education ( $n=3$ )	92	85	89	64	66
Master Other ( $n=2$ )	74	72	77	72	66
Mean Score for All	80.22	77	85.33	69.89	68.33

$N = 9$

The employment for entrepreneurship instructors in Group A averaged 124 months at the facility, or just over 10 years. The individual lengths of employment ranged from 28 to 342 months (2 years 4 months to 28 years 6 months). Only three of the instructors had been employed less than 3 years, and four had been employed more than 10 years.

The instructors in Group A also averaged 194 months, or just over 16 years, experience working with adults. The length of experience ranged from 28 to 360 months (2 years 4 months to 30 years). Only three had five years or less overall experience working with adults, and six had over 10 years (see Table 7). When mean PAEI scores are examined according to the length of employment at any facility or the length of overall experience working with adults, there does not appear to be any impact to the participants' degree of agreement or disagreement with each of the educational philosophies.

Table 7

*Group A Mean PAEI Scores According to Employment and Experience*

	B	L	P	H	R
Length of Employment with Entrepreneurship Facilities					
< 3 years with Facility ( <i>n</i> =3)	80	79	85	71	62
>3 & < 10 years ( <i>n</i> =2)	73	72	84	74	69
> 10 years ( <i>n</i> =4)	84	79	86	67	73
Length of Experience Working with Adults					
< 5 years ( <i>n</i> =3)	80	78	85	71	62
> 10 Years ( <i>n</i> =6)	81	78	85	70	71
<i>N</i> = 9					

*Workforce Education Instructors (Group B)*

Of the 119 survey instrument sets mailed to the workforce education instructors in the State of Alabama, 99 were returned for scoring (83%). There was a range of 14.64 between the Means: 86.13 (B), 74.90 (L), 85.28 (P), 71.64 (H), and 71.49 (R).

The highest philosophy scores for the 99 instructors in Group B ranged between 94 and 104. Fifty-one participants identified behavioral (49.5%) and 44 identified progressive (42.7%) as the philosophies they most agreed with. The remaining participants identified humanistic philosophy (5.0%), the liberal philosophy (3.0%), or

the radical philosophy (1.0%) as the adult education philosophy they tended to agree with the most. Three participants had identical high score in progressive and behavioral philosophies, and one had identical scores in the progressive and humanistic philosophies.

The lowest scores ranged from 27 to 92. Thirty-eight participants identified least with the radical philosophy (38.3%), thirty-five the humanistic philosophy (35.3%), and twenty-seven the liberal philosophy (27.2%). Two participants also identified the behavioral (2.0%) and the progressive (2.0%) as the adult education philosophies they tended to agree with the least. Five of the participants had identical low scores in two philosophies on their survey instruments (see Table 8).

Table 8

*Overview of PAEI Scores for Group B*

	B	L	P	H	R
Mean	86.13	74.9	85.28	71.64	71.49
Median	87	76	87	71	73
Standard Deviation	10.49	8.65	10.91	12.23	12.63
Minimum	39	39	34	37	27
Maximum	104	94	102	101	95
Range	65	55	68	64	68
# Agreeing w/ philosophy	51	3	44	4	1

*N* = 99

As opposed to the entrepreneurship instructors in Group A, who were overwhelmingly male (88.9%), the workforce education instructors, or Group B, tended to be predominately female. Seventy-nine of the survey instruments returned in Group B were from female instructors (79.8%), while only 20 were from male instructors (20.2%). The mean scores for the female instructors were higher across all five of the philosophies than the male instructors' scores. Additionally, the standard deviation for females was smaller for all five philosophies. The maximum scores for female instructors were also higher across all five philosophies than the scores reported by the male instructors (see Table 9).

Table 9

*PAEI Scores of Group B by Instructor Gender*

	B	L	P	H	R
Mean	86.13	74.90	85.28	71.64	71.49
Females	86.62	75.39	86.13	72.82	71.99
Male	84.20	72.95	81.95	66.95	69.55

*N = 99*

Only 13 of the instructors in Group B (13.1%) indicated they disagreed with any of the educational philosophies. Forty-one of the instructors (41.4%) indicated they were neutral toward any of the philosophies. Ninety-six of the instructors (97%) reported agreement with at least one of the educational philosophies, and one instructor reported strong agreement with all five of the philosophies. The liberal philosophy is the only

educational philosophy with which none of the workforce education instructors in Group B reported strong agreement (see Table 10).

Table 10

*PAEI Distribution According to Philosophical Agreement Within Group B*

Scores	B	L	P	H	R
Strong Agreement 95 – 105	23.2%	0%	17.2%	2%	1%
Agreement 66 – 94	72.8%	87.9%	79.8%	68.7%	68.7%
Neutral 56 – 65	2%	11.1%	1%	21.2%	20.2%
Disagreement 26 – 55	2%	1%	2%	8%	10.1%

*N* = 99

Fifty of the participants in Group B reported they had some kind of Educational degree (50.5%): a Bachelors, Masters, Doctorate, or Specialist Certificate. Thirty-eight (38.3%) reported other degrees: High School Diploma, Associates, Bachelors, Masters, or Doctorate in other fields. Eleven participants declined to give any information regarding their education (11.1%), and they tended to have higher means in the philosophies than the participants with either business or education related degrees (see Table 11).

Table 11

*Group B Mean PAEI Scores by Obtained Degree*

	B	L	P	H	R
Mean	86.13	74.9	85.28	71.64	71.49
Education Degree ( <i>n</i> =50)	86.52	74.78	87.22	74.02	70.88
Other Degree ( <i>n</i> =38)	84.42	73.87	82.11	68.97	71.11
No Answer ( <i>n</i> =11)	90.27	79	87.45	70	75.64

*N* = 99

The participants without educational information also tended to be neutral or agree with all five of the educational philosophies. Participants listing educational or other degrees disagreed with some of the philosophies; however, none of the workforce education instructors strongly disagreed with any of the educational philosophies.

Participants with educational degrees primarily disagreed with the radical philosophy (2.6%) and the humanistic (2.6%) philosophy. Less than 1% of the respondents disagreed with either the behavioral, liberal, or progressive philosophies. The Instructors who listed other degrees disagreed with the humanistic (1.8%) philosophy, and the radical philosophy (0.9%), with <1% disagreeing with the behavioral and progressive educational philosophies (see Table 12).



Table 12

*Agreement with PAEI Scores for Group B by Obtained Degree*

	Strongly Agree 95 – 105	Agree 66 – 94	Neutral 56 - 65	Disagree 26 – 55
Education Degree ( <i>n</i> =50)	11%	74%	9%	6%
Other Degree ( <i>n</i> =38)	6%	78%	12%	4%
No Answer ( <i>n</i> =11)	10%	78%	12%	0

*N* = 99

Five of the 50 Instructors who indicated they had educational degrees in Group B specifically listed Adult Education as their degree major. The mean scores for the adult education instructors were very similar to the other education majors. However, only one adult education instructor's score indicated neutrality towards any philosophy (radical). One instructor strongly agreed with the behavioral philosophy and another with the progressive philosophy (see Table 13).

The other 45 Instructors listed some type of educational degree. These instructors had scores that indicated they disagreed with one or more of the educational philosophies. Primarily they disagreed with the radical (4.4%) and humanistic (2.2%) philosophy. The behavioral, liberal, and progressive philosophies each had one instructor indicating disagreement with the philosophy. Overall, the instructors strongly agreed with the behavioral (5%), progressive (5%), and humanistic philosophies (1%). One instructor indicated strong agreement with the radical philosophy (<1%).

Table 13

*Agreement with PAEI Scores for Obtained Degrees*

	Strongly Agree 95 – 105	Agree 66 - 94	Neutral 56 – 65	Disagree 26 – 55
Education Degree ( <i>n</i> =45)	11%	72%	10%	7%
Adult Education Degree ( <i>n</i> =5)	12%	4%	4%	0

*N* = 50

There were two MBAs within the grouping of other educational degrees. However, there did not appear to be any differences between scores based upon degree type. There were also vast differences in the degree of education among the participants. There were three respondents listing high school diploma as their highest degree, two with Associates Degree, 38 with Bachelors, 41 with Masters, three with Doctorates, and one with a Specialist Certificate.

There were no discernable patterns to the differences between the means of the philosophies when grouped by participants' highest degree. The variance in the behavioral philosophy was 17.17, and the standard deviation was only 10.49. The greatest variance existed between participants holding Associates degrees (95.5) and Doctorates (78.33). However, the liberal philosophy had a variance of 12.17 with a Standard Deviation of 8.65 with the greatest variance existing between participants holding Associates degrees (81.50) and high school diplomas (69.33). The small participant size

of each of the high school, Associates and Doctorate groups make the groups unreliable for further investigation.

Three of the participants did not report either their length of employment at the facility or length of experience working with adults. The remaining participants ranged from one month at their current facility to 288 months (24 years). Sixty-two participants had been employed for less than five years, 16 for less than 10 years, ten for less than 15 years, six for less than 20, and two for more than 20 years. The participants who had been at the same facility for more than 15 and 20 years and those employed for longer than 20 years tended to have the lowest means for the humanistic (59.33, 62.50) and radical (64.33, 62.50) philosophies. These scores, however, still fall within one standard deviation and are Neutral towards the educational philosophies. Otherwise, there were no discernable patterns regarding the length of employment impacting the philosophies.

The length of time the participants had spent working with adult learners in general ranged from one month to 468 months (39 years). Sixty-two participants had been employed for less than five years, 16 for less than 10 years, ten for less than 15 years, six for less than 20, and two for more than 20 years. Twenty-seven participants had worked with adults for less than five years; 25 for less than 10 years; 15 for less than 15 years; 14 for less than 20 years; 13 for less than 30 years; and two participants had more than 30 years experience working with adults. The two participants with over 30 years experience produced the lowest means for the five educational philosophies (B=79, L=76, P =73, H=58, R=57.50). However, these scores still fall within one standard deviation and show participant agreement or neutrality toward the philosophies.

The workforce education instructors also reported whether they were employed as part time (41), or full time Instructors (45); or whether they were employed as FIT (Focused Industry Instructors) Instructors (13). There were only negligible differences between the means for the philosophies among the three employment groups. The greatest variance (3.86) appeared in the behavioral philosophy between the part time Instructors and FIT Instructors. Overall, where any slight differences existed, they typically existed between those two groups (see Table 14).

Table 14

*Breakdown of PAEI Results for Group B by Employment Status*

	B	L	P	H	R
Mean	86.13	74.90	85.28	71.64	71.49
Part Time ( <i>n=41</i> )	88.32	75.63	84.85	70.38	73.31
Full Time ( <i>n=45</i> )	84.62	74.07	86.22	73.31	71.80
FIT ( <i>n=13</i> )	84.46	75.46	84.85	70.38	73.31

*N = 96*

### PALS

The PALS instrument measures commitment to a teaching style. According to Conti (2004), scores are measured against an established mean of 146 with a standard deviation of 20. Most scores should fall within one standard deviation. Depending on which side of the established 146 mean the individual reports, the score indicates either a teacher-centered or learner-centered approach to teaching. If the score falls with one

standard deviation on the lower side of 146 (from 126 – 146), the result would indicate a commitment to a teacher-centered teaching style, while scores in the other direction (from 146 – 166) would indicate more of a commitment to a learner-centered style. Scores falling 20 to 40 points, or two standard deviations, from the average (106 -125 and 147 – 186) indicate a “very strong and consistent support of a definitive teaching style” (p. 79), either teacher-centered or learner-centered. Scores falling three standard deviations from the established mean (< 105 and >186) “indicate an extreme commitment” (p. 79) to one particular style.

### *Results*

A one-sample t-test was conducted to determine whether differences exist between both groups of instructors and the means established by Conti (2004). The mean for the PALS for all Instructors was 134.9, which is 11.2 points below the established mean of 146. The standard deviation is 18.2 rather than the 20 points established by Conti (2004). There was a statistical significant difference between the established mean and participant sample mean,  $t(107) = -6.36, p < .001$ , with a medium effect size ( $d=0.612$ ). These results indicate a preference for the teacher-centered style among this group of instructors (see Table 15).

Table 15

*Statistical Analysis of PALS Scores of Both Groups*

	<i>t</i>	Group Mean	<i>SD</i>	<i>d</i>	<i>p</i>
Both Groups	-6.36	134.9	18.2	.612	< .001

*N = 108*

Eighty-two of the participants (75.9%) scored below the established mean of 146. Sixty-four of the participants (59.2%) fall within one standard deviation, with 41 (37.9%) falling within two deviations. The remaining three (2.8%) fall within three deviations. The lowest recorded score was 86, and highest 185 (see Table 16).

Table 16

*Deviation Distribution of PALS Scores for Both Groups*

86 – 105	106 – 125	126 – 145	146 – 166	167 – 185
- 3 Standard Deviations	- 2 Standard Deviations	- 1 Standard Deviation	+ 1 Standard Deviation	+ 2 Standard Deviations
Teacher-Centered		Learner-Centered		
3	35	44	20	6

*N = 108*

The total PALS score reflects the overall or general teaching style of an individual instructor. However, the items within the instrument can be divided into seven categories that reflect seven specific aspects, or factors, of the teaching-style. These factor scores measure whether instructors utilize specific behaviors in their teaching.

Factor 1: Learner-Centered Activities directly relates to the evaluation of students by formal testing and comparing the students to external standards, as well as exercising control over the classroom. This factor would look at whether instructors tend to provide opportunities for student initiated activities within their learning environments. The teacher might also assign desk work in order to maintain control (Conti, 2004).

Factor 2: Personalizing Instruction involves teacher personalization of the instruction for the students. This factor would measure the tendency to plan activities that are personalizes for the students. For instance, the instructors might tend to use self-pacing with methods that are dictated by students (Conti, 2004).

Factor 3: Relating to Experience is concerned with the ability of instructors to relate to the student's prior experience. This factor would measure the tendency to consider previous life experiences the student's may have when arranging the classroom learning environment (Conti, 2004).

Factor 4: Assessing Student Needs measures the instructor's assessment of students' needs. This factor measures the tendency of instructors to seek to understand as well as assess the wants and needs of students before planning any classroom learning activities (Conti, 2004).

Factor 5: Climate Building considers whether the instructor creates a friendly and informal climate for the students. The factor measures whether student feedback is encouraged, and climate building considered as a first step in planning learning activities. The instructors may also be very committed to rigid environments for learning, tend toward more formal instruction, and are not as involved in creating learning climates for their students (Conti, 2004).

Factor 6: Participation in the Learning Process measures how much students are involved in evaluating their performance against the set learning objectives. This factor measures the tendency for instructors to allow students to determine and select aspects of their learning environment, specifically the materials used and topics covered (Conti, 2004).

Factor 7: Flexibility for Personal Development measures the flexibility of teachers to accommodate the students within the environment. This factor measures whether instructors view themselves as knowledge providers and tend to set the program objectives early and maintain a very disciplined environment for the students; or if they see themselves more as facilitators rather than knowledge providers, and encourage discussion, including controversial topics, personal fulfillment, and offer flexibility within the learning environment. In the later case they would maintain flexibility in their curriculum and lesson plans for the students (Conti, 2004).

For each of the factor scores, Conti (2004) established a mean. High scores above the mean reflect a tendency for the instructor to utilize the learner-center approach in regards to the concept. Likewise, a low score below the mean indicates a teacher-centered approach. One-sample t-tests were conducted to determine what differences exist between the instructors for each factor and the means established by Conti (2004) (see Table 17).



Table 17

*Statistical Analysis of the PALS Factors for Both Groups*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
Group Mean	33.2	34.5	19.2	16.2	11.8	9.9	10
<i>t</i>	- 6.03	5.24	- 3.33	11.29	11.83	-8.72	- 7.33
<i>SD</i>	8.2	7.0	5.7	2.9	2.4	3.7	4.2
<i>d</i>	- .581	.504	- 3.20	1.08	- 1.71	- .839	- .705
<i>p</i>	< .001	< .001	.001	< .001	< .001	< .001	< .001

*N* = 108

For Factor 1: Learner-Centered Activities, Conti (2004) established the mean as 38, while the group mean is only 33.2. This would indicate that the majority of the instructors exhibit teacher-centered behaviors in this area. Twenty-eight of the participants (25.9%) did report scores at or above the established mean of 38 in the area of learner-center styles and would tend to provide opportunities for student initiated activities within their learning environments (see Table 18). Results for Factor 1 were statistically significant,  $t(107) = -6.03$ ,  $p < .001$ , with a medium effect size ( $d = -.581$ ) (see Table 17).

For Factor 2: Personalizing Instruction Conti (2004) established the mean at 31. The mean for the participants' score was 35.5, placing the majority of the instructors within the learner-center range of the scoring. Eighty-one instructors (75%) scored at or above the mean of 31 indicating the majority of the instructors plan a variety of self-

spacing activities dictated by and to personalize the instruction for the students (see Table 18). Results for Factor 2 were statistically significant,  $t(107) = 5.238$ ,  $p < .001$ , with a medium effect size ( $d = .504$ ) (see Table 17).

For Factor 3: Relating to Experience, Conti (2004) established the mean at 21, and the group mean score was 19.2 implying the instructors do not tend to use prior experiences of their students as a basis for their student's learning activities. Only 45 instructors (41.6%) scored at or above the established mean of 21 in the learner-centered range (see Table 18). Results for Factor 3 were statistically significant,  $t(107) = -3.33$ ,  $p = .001$ , with a small effect size ( $d = -.320$ ) (see Table 17).

For Factor 4: Assessing Student Needs, Conti (2004) established the mean at 13 and the group mean is 16.3, indicating that instructors do tend to consider their students to be adults. Ninety-eight of the participants (90.1%) reported scores at or above the established mean of 12 indicating the instructors do tend to seek to understand and assess the wants and needs of students for their classroom learning activities (see Table 18). Results for Factor 4 were statistically significant,  $t(107) = 11.29$ ,  $p < .001$ , with a large effect size ( $d = 1.08$ ) (see Table 17).

For Factor 5: Climate Building, Conti (2004) established the mean at 16, and the group mean is only 11.8. Because none of the instructors either group scored at or above the established mean, it would tend to indicate that the instructors are very committed to rigid environments for learning, and are not as involved in creating learning climates (see Table 18). Results for Factor 5 not statistically significant,  $t(107) = 11.83$ ,  $p < .001$ , with a large effect size ( $d = -1.71$ ) (see Table 17).

For Factor 6: Participation in the Learning Process, Conti (2004) established the mean at 13, and the group mean falls below at 9.9 within the teacher-centered range of the scoring. One instructor scored a zero in this factor indicating he or she would not be likely to encourage any student involvement in the lesson planning or evaluation at all. Only 29 participants (26.9%) scored above the established mean of 13 meaning they were learner-centered and desired to involve students in the learning process (see Table 18). Results for Factor 6 were statistically significant,  $t(107) = -8.72, p < .001$ , with a large effect size ( $d = -.839$ ) (see Table 17).

For Factor 7: Flexibility for Personal Development, Conti (2004) established the mean at 13, while the group mean fell below at 10 indicating that the instructors view themselves as knowledge providers rather than facilitators who set program objectives early and maintain a disciplined environment. Thirty-two instructors (29.6%) fall at or above the established mean of 13 indicating these instructors are more learner-centered (see Table 18). Results for Factor 7 were statistically significant,  $t(107) = -7.33, p < .001$ , with a medium effect size ( $d = -.705$ ) (see Table 17).

Table 18

*Distribution of PALS Factors According to the Mean for Both Groups*

PALS	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	
Mean Scores for Both Groups of Instructors								
Mean	134.9	32.6	35.5	19.2	16.3	11.8	9.8	9.8
# <	50	49	57	54	52	48	48	46
# >	58	59	51	54	56	60	60	62
Established Mean Scores								
Mean	146	38	31	21	13	16	13	13
# <	82	80	27	63	10	108	79	76
# =	1	5	5	8	16	0	14	10
# >	25	23	76	37	82	0	15	22

*N* = 108

*Entrepreneurship Instructors (Group A)*

A one-sample t-test was conducted to determine whether differences exist between the entrepreneurship instructors, or Group A, and the means established by Conti (2004). The mean for the PALS instructors in Group A was 134.2, which is 11.8 points below the established mean of 146. The standard deviation is 16.8 rather than the 20 points established by Conti (2004). There was no statistical significant difference

between the established mean and participant sample mean,  $t(8) = -2.10$ ,  $p = .069$ , with a mean of 134.2, and a medium effect size ( $d = -.699$ ) (see Table 19).

Table 19

*Statistical Analysis of PALS Scores of Group A*

	<i>t</i>	Group Mean	<i>SD</i>	<i>d</i>	<i>p</i>
Both Groups ( $N=108$ )	-6.36	134.9	18.2	.612	< .001
Group A ( $n=9$ )	-2.10	134.2	16.8	-.699	.069

The minimum participant's score was 104, three standard deviations from the mean indicating an extreme commitment to teacher-centered instruction. The maximum score was 106, one standard deviation from the mean indicating a commitment to learner-centered instruction (see Table 20).

Table 20

*Distribution of PALS Scores Among the Deviations for Group A*

	86 – 105 - 3 Standard Deviations	106 – 125 - 2 Standard Deviations	126 – 145 - 1 Standard Deviation	146 – 166 + 1 Standard Deviation	167 – 185 + 2 Standard Deviations
	Teacher-Centered			Learner-Centered	
Both Groups	3	35	44	20	6
Group A	1	2	4	2	0
$N = 9$					

One-sample t-tests were conducted to determine whether differences existed within the seven factors among the nine entrepreneurship instructors in Group A and their teaching styles according to scores reported in the PALS instrument. While there was no statistical significance for the entire PALS score, the score did indicate the instructors tended to be more teacher-centered rather than learner-centered in their teaching style (see Table 21).

Table 21

*Overview and Statistical Analysis of the PALS Factors Within Group A*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
Group Mean	40.6	24.4	19.4	14.8	12.7	10.2	12.1
Minimum	27	18	15	9	9	8	2
Maximum	51	33	27	19	15	12	15
<i>t</i>	.921	- 3.41	-1.22	1.56	- 4.26	- 7.62	- .670
<i>SD</i>	8.3	5.8	3.8	3.4	2.3	1.1	2.3
<i>d</i>	.308	- 1.13	- .410	.523	- 1.45	- 2.53	- 2.22
<i>p</i>	0.384	.009	.256	.157	.003	< .001	.522

*N* = 9

Conti (2004) established the mean for Factor 1: Learner-Centered Activities at 38 and the mean for the instructors in Group A is 40.6. Six of the instructors (66.7%) reported scores above the established mean (see Table 22). This would tend to indicate these instructors tend to be more supportive of collaborative modes of teaching and

learning. Results for Factor 1 were not statistically significant,  $t(8) = .921, p = .384$ , with a small effect size ( $d = .308$ ) (see Table 21).

Conti (2004) established the mean for Factor 2: Personalizing Instruction at 31 and the mean for the instructors in Group A is 24.4. Only one instructor reported a score above the established mean of 31 indicating that entrepreneurship instructors personalize lesson plans for their students (see Table 22). Results for Factor 2 were statistically significant,  $t(8) = -3.41, p = .009$ , with a large effect size ( $d = -1.13$ ) (see Table 21).

Conti (2004) established the mean for Factor 3: Relating to Experience at 21 and the mean for the instructors in Group A is 19.4. Three of the entrepreneurship instructors (33.3%) scored at or above the group and established mean indicating they base learning activities on the prior experiences of their students (see Table 22). Results for Factor 3 were not statistically significant,  $t(8) = -1.22, p = .256$ , with a medium effect size ( $d = -.410$ ) (see Table 21).

Conti (2004) established the mean for Factor 4: Assessing Student Needs at 13 and the mean for the instructors in Group A is 14.8. Seven of the participants (77.8%) scored at or above the established mean indicating they tend to assess student's needs and use that information in developing activities within their learning environments (see Table 22). Results for Factor 4 were not statistically significant,  $t(8) = 1.56, p = .157$ , with a small effect size ( $d = .523$ ) (see Table 21).

Conti (2004) established the mean for Factor 5: Climate Building at 16 and the mean for the instructors in Group A is 12.7. None of the entrepreneurship instructors scored above the established mean of 16 in the learner-centered range (see Table 22). This would tend to indicate the instructors tend to prefer rigid learning environments, and

formal instruction. Results for Factor 5 were statistically significant,  $t(8) = -4.26$ ,  $p = .003$ , with a large effect size ( $d = -1.45$ ) (see Table 21).

Conti (2004) established the mean for Factor 6: Participation in the Learning Process at 13 and the mean for the instructors in Group A is 10.2. Again, none of the instructors scored above the established mean, indicating they are not likely to encourage student involvement in the development of lesson plans or evaluation the course (see Table 22). Results for Factor 6 were statistically significant,  $t(8) = -7.62$ ,  $p < .001$ , with a large effect size ( $d = -2.53$ ) (see Table 21).

Conti (2004) established the mean for Factor 7: Flexibility for Personal Development at 13 and the mean for the instructors in Group A is 12.1. Five instructors (55.6%) scored at or above the established mean of 13 in the learner-centered range of the scoring (see Table 22). These instructors would tend to view the student's personal fulfillment as an integral part of the education process. Results for Factor 7 were not statistically significant,  $t(8) = -.670$ ,  $p = .522$ , with a small effect size ( $d = -.222$ ) (see Table 21).



Table 22

*Distribution of PALS Factors According to the Mean for Group A*

	PALS	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Group Mean Scores								
Mean	134.2	40.6	24.4	19.4	14.8	12.7	10.2	12.1
# <	4	5	4	6	4	3	6	4
# >	5	4	5	3	5	6	3	5
Established Mean Scores								
Mean	146	38	31	21	13	16	13	13
# <	7	3	8	6	2	9	9	4
# =	0	0	0	0	2	0	0	1
# >	2	6	1	3	5	0	0	4

$N = 9$

Seven of the respondents (6.5%), primarily the entrepreneurship instructors indicated they held MBA's which provided a sound and important business background for training entrepreneurs. This group reported a mean score of 129.4 and a standard deviation of 7.5. Conti (2004) had established the mean for the PALS at 146 and the standard deviation of 20. The mean for the MBA's is at the low end of the first standard deviation of the mean established by Conti. These instructors would tend to be very teacher-centered. There is statistical significance of  $t(6) = -5.827, p = .001$  with a large effect size ( $d = -2.21$ ) (see Table 23).

Table 23

*Statistical Analysis of PALS Scores of MBA's*

	<i>t</i>	Group Mean	<i>SD</i>	<i>d</i>	<i>p</i>
Both Groups ( <i>N</i> =108)	-6.36	134.9	18.2	.612	< .001
MBA's ( <i>n</i> =7)	-5.83	129.4	7.5	-2.21	.001

None of the instructors with MBA's reported scores within the learner-centered range of the PALS instrument. The minimum participant's score was 118, two standard deviations from the mean indicating a strong and consistent commitment to teacher-centered instruction. The maximum score was 138, which was below the mean of both groups of instructors. These scores indicate a commitment to teacher-centered teaching (see Table 24).

Table 24

*Deviation Distribution of PALS Scores for MBA's*

86 – 105	106 – 125	126 – 145	146 – 166	167 – 185
- 3 Standard Deviations	- 2 Standard Deviations	- 1 Standard Deviation	+ 1 Standard Deviation	+ 2 Standard Deviations
Teacher-Centered			Learner-Centered	
0	2	5	0	0

*N* = 7

The instructors with MBA's reported scores very similar to the other groups, indicating they were more teacher-centered in all aspects of their teaching style. Four of the seven MBA instructors were entrepreneurship instructors. Because the MBA's made up almost half of Group A (44%), the factor results for the MBA's were very similar to the results for Group A (see Table 25).

Table 25

*Statistical Analysis and Comparison of PALS Factors for MBA's*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
MBA's ( <i>n</i> =7)	37.1	26.3	18.1	14.9	11.9	9.6	11.6
Both Groups ( <i>N</i> =108)	33.2	34.5	19.2	16.2	11.8	9.9	10
Group A ( <i>n</i> =9)	40.6	24.4	19.4	14.8	12.7	10.2	12.1
Group B ( <i>n</i> =99)	32.6	35.5	19.3	16.3	11.8	9.8	9.8

There were two factors where the means for the MBA instructors differed from means for Group A by more than 2 points. In Factor 1: Learner-Centered Activities the MBA's reported a mean score of 37.1, which was 3.5 points below the rest of Group A, though still close to the established mean of 38. This would indicate the MBA's were only slightly less committed to allow students to initiate their own work than other entrepreneurship instructors. In Factor 2: Personalizing Instruction the MBA instructors reported a mean score of 26.3, which was 1.9 points above the rest of Group A, although

still below the established mean of 31. These results indicate that MBA instructors are slightly more likely to personalize lesson plans for their students than other entrepreneurship instructors. For the remaining factors, the MBA instructors reported less than a 2 point difference between their means and the means for the entrepreneurship instructors (see Table 26).

Table 26

*Statistical Analysis of the PALS Factors for MBA's*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
Group Mean	37.1	26.3	18.1	14.9	11.9	9.6	11.6
Minimum	30	18	16	9	10	7	3
Maximum	51	37	22	20	14	12	15
<i>t</i>	-.316	-1.96	-4.05	1.47	-6.97	- 4.77	-.937
<i>SD</i>	7.18	6.37	1.86	3.34	1.57	1.90	4.04
<i>d</i>	-.119	-.738	-1.56	.568	-2.61	-1.79	-.347
<i>p</i>	.763	.098	.007	.191	.000	.003	.385

*N* = 7

*Workforce Education Instructors (Group B)*

A one-sample t-test was conducted to determine whether differences exist between the workforce education instructors, or Group B, and the means established by Conti (2004). The mean for the PALS instructors in Group B was 134.9, which is 11.1

points below the established mean of 146. The standard deviation is 18.4 rather than the 20 points established by Conti (2004). The results were statistically significant,  $t(98) = -5.99, p < .001$ , with a mean of 134.9, and a medium effect size ( $d = -.602$ ) (see Table 27).

Table 27

*Statistical Analysis of PALS Scores of Group B*

	<i>t</i>	Group Mean	<i>SD</i>	<i>d</i>	<i>p</i>
Both Groups ( $N=108$ )	-6.36	134.9	18.2	.612	< .001
Group B ( $n=99$ )	-5.99	134.9	18.4	-.602	< .001

The minimum participant's score was 86, which is three standard deviations from the mean indicating an extreme commitment to teacher-centered instruction. The maximum score was 185, two deviations from the mean indicating a very strong and consistent commitment to learner-centered instruction (see Table 28).

Table 28

*Distribution of PALS Scores Among the Deviations for Group B*

	86 – 105 - 3 Standard Deviations	106 – 125 - 2 Standard Deviations	126 – 145 - 1 Standard Deviation	146 – 166 +1 Standard Deviation	167 – 185 +2 Standard Deviations
	Teacher-Centered			Learner-Centered	
Both Groups ( <i>N</i> =108)	3	35	44	20	6
Group B ( <i>n</i> =99)	2	33	40	18	6

These two scores, 86 and 185, constitute the extremes for the both groups of instructors, and were considered outliers. T-tests were run both including and excluding the two outliers; however, there was only a change of .05 to the mean for the workforce education instructors and the mean for the entire group, and only one of the seven factors had an altered minimum/maximum score. Therefore, the outliers were included in the sample of workforce education instructors.

One-sample t-tests were conducted to determine whether differences existed within the seven factors among the 99 workforce education instructors in Group B and their teaching styles according to the scores reported on the PALS instrument. The results were statistically significant,  $t(98) = -5.99, p < .001$ , with a mean of 134.9, and a medium effect size ( $d = -.602$ ). These results indicate that the Workforce instructors

tended to be more teacher-centered rather than learner centered in their teaching style (see Table 29).

Table 29

*Statistical Analysis of the PALS Factors Within Group B*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
Group Mean	32.6	35.5	19.3	16.3	11.8	9.8	9.8
Minimum	11	18	6	8	4	0	1
Maximum	53	39	30	20	15	18	19
<i>t</i>	- 6.83	6.94	- 3.15	11.48	-17.32	-8.10	- 7.48
<i>SD</i>	8	6.4	5.8	2.9	2.4	2.4	4.2
<i>d</i>	- .681	.696	- .317	1.14	- 1.76	- .810	- .757
<i>p</i>	< .001	< .001	.002	< .001	< .001	< .001	< .001

*N* = 99

Conti (2004) established the mean for Factor 1: Learner-Centered Activities at 38 and the mean for the ninety-nine workforce education instructors in Group B is 32.6. Only 22 of the participants (22.2%) reported scores at or above the established mean within the learner-centered teaching range (see Table 30). These instructors would tend to be supportive of collaborative learning and are less teacher-centered in their style than other participants. Results for Factor 1 were statistically significant,  $t(98) = -6.83$ ,  $p < .001$ , with a medium effect size of ( $d = -.681$ ) (see Table 29).

Conti (2004) established the mean for Factor 2: Personalizing Instruction at 31 and the mean for instructors in Group B is 35.5. Eight-one of instructors (80.1%) reported scores at or above the established mean. This means the majority of instructors would tend to personalize their lesson plans and provide self-paced methods which the students can dictate for the learning activities (see Table 30). Results for Factor 2 were statistically significant,  $t(98) = 6.94, p < .001$ , with a medium effect size of ( $d = .696$ ) (see Table 29).

Conti (2004) established the mean for Factor 3: Relating to Experience at 21 and the mean for instructors in Group B is 19.2, which tends to indicate the instructors do not base learning activities on prior experiences. Forty-two (42.4%) reported scores at or above the established mean in the learner-centered range indicating they do recognize their students' prior experiences in learning environments (see Table 30). Results for Factor 3 were statistically significant,  $t(98) = -3.15, p > .001$ , with a medium effect size of ( $d = -.317$ ) (see Table 29).

Conti (2004) established the mean for Factor 4: Assessing Student Needs at 13 and the mean for instructors in Group B is 16.3. Ninety-one of the instructors (91.9%) scored at or above the established mean, indicating that, overall, instructors assess students' needs and use that information in developing activities within the learning environment (see Table 30). Results for Factor 4 were statistically significant,  $t(98) = 11.48, p < .001$ , with a large effect size of ( $d = 1.14$ ) (see Table 29).

Conti (2004) established the mean for Factor 5: Climate Building at 16 and the mean for instructors in Group B is 11.8. None of the entrepreneurship instructors scored above the established mean in the learner-centered range; tending to indicate the instructors prefer rigid learning environments, and formal instruction (see Table 30).



Results for Factor 5 were statistically significant,  $t(98) = -17.32, p < .001$ , with a large effect size of ( $d = -1.76$ ) (See Table 29).

Conti (2004) established the mean for Factor 6: Participation in the Learning Process at 13 and the mean for instructors in Group B is 9.8. Twenty-nine instructors (29.3%) scored at or above the established mean, which indicates they are likely to encourage student involvement in the development of lesson plans or evaluation the course. However, two participants (2%) actually reported a score of 0 for this factor, indicating they do not have any student involvement in their course development (see Table 30). Results for Factor 6 were statistically significant,  $t(98) = -8.1, p < .001$ , with a large effect size of ( $d = -.810$ ) (see Table 29).

Conti (2004) established the mean for Factor 7: Flexibility for Personal Development at 13 and the mean for instructors in Group B is 9.8. Twenty-seven instructors (27.2%) score at or above the established mean and would consider themselves as facilitators of the process of education rather than education providers (see Table 30). Additionally, they would view the student's personal fulfillment as a consideration of education. Results for Factor 7 were statistically significant,  $t(98) = -7.48, p < .001$ , with a medium effect size of ( $d = -.757$ ) (see Table 29).

Table 30

*Distribution of PALS Factors According to the Mean for Group B*

	PALS	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Group Mean Scores								
Mean	134.9	32.6	35.5	19.2	16.3	11.8	9.8	9.8
# <	65	47	36	48	46	45	47	45
# >	34	52	63	51	53	54	52	54
Established Mean Scores								
Mean	146	38	31	21	13	16	13	13
# <	75	77	19	57	8	99	70	72
# =	1	5	5	8	14	0	14	9
# >	23	17	75	34	77	0	15	18

*N* = 99

Five of the respondents (4.6%), all of whom were workforce education instructors, indicated they held degrees in Adult Education. These instructors should have received information specifically regarding adult learners while pursuing their degrees. This group reported a mean score of 147.8 and a standard deviation of 20.4. The mean for the instructors with adult education degrees is slightly above the established mean and, therefore, they would tend to be more learner-centered than the instructors with MBA's or other education degrees. These results indicate there was no statistical significance,  $t(4) = .197, p = .853$  with a small effect size ( $d = .088$ ) (see Table 31).

Table 31

*Statistical Analysis of PALS Scores of Adult Education Degrees*

	<i>t</i>	Group Mean	<i>SD</i>	<i>d</i>	<i>p</i>
Both Groups ( <i>N</i> =108)	-6.36	134.9	18.2	.612	< .001
Adult Education Degrees ( <i>n</i> =5)	.197	147.8	20.4	.088	.853

Three of the five instructors with Adult Education degrees reported scores within the learner-centered range of the PALS instrument. The minimum participant’s score was 115, two standard deviations from the mean indicating a strong and consistent commitment to teacher-centered instruction. The other scores, ranging from 145 – 179 indicate varying levels of commitment to learner-centered instruction (see Table 32).

Table 32

*Deviation Distribution of PALS Scores for Adult Education Degrees*

86 – 105	106 – 125	126 – 145	146 – 166	167 – 185
- 3 Standard Deviations	- 2 Standard Deviations	- 1 Standard Deviation	+ 1 Standard Deviation	+ 2 Standard Deviations
Teacher-Centered		Learner-Centered		
0	1	1	2	1

*N* = 5

The instructors with adult education degrees reported means above other groups' means for five of the seven factors, and equal to or over the established mean for three of the factors. These results indicate that although the instructors, as a whole, tended to be more teacher-centered, the instructors who had received training in Adult Education tended to be more aware of the need for more learner-centered behaviors in the classroom (see Table 33).

Table 33

*Comparison of Statistical Analysis of the PALS Factors for Adult Education Instructors*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
Adult Educators ( <i>n</i> =5)	34.2	39	21	18	14.2	11	10.4
Both Groups ( <i>N</i> =108)	33.2	34.5	19.2	16.2	11.8	9.9	10
Group A ( <i>n</i> =9)	40.6	24.4	19.4	14.8	12.7	10.2	12.1
Group B ( <i>n</i> =99)	32.6	35.5	19.3	16.3	11.8	9.8	9.8

For Factor 1: Learner-Centered Activities the participants with Adult Education degrees had a mean of 34.2 below what Conti (2004) established as the normative mean of 38 (see Table 33). This would indicate that these instructors would likely use formal testing for evaluating their students and would tend to assign desk work rather than allow students to initiate their own activities. However, this factor also reported a very large Standard Deviation of 8.64 with a range of 23 points. The scores showed a minimum of

24 and maximum of 47 implying there is a great deal of difference between the instructors' style in this area. Results for Factor 1 were not statistically significant,  $t(4) = -.983, p = .381$  with a small effect size ( $d = -0.439$ ) (see Table 34).

For Factor 2: Personalizing Instruction the participants with Adult Education degrees reported a mean score of 39 while Conti (2004) established a mean of only 31. The mean for instructors reporting adult education degrees is firmly in the learner-centered area meaning that instructors personalize instruction for their students, and utilize self-paced methods the students' dictate in the classroom (see Table 33). However, this factor also had a large standard deviation of 6.52 with a range of 17. The scores ranged from 28 to 45, again implying there is a great deal of difference among the instructors' style in this area (see Table 34). Results for Factor 2 were not statistically significant,  $t(4) = 2.744, p = .052$  with a large effect size ( $d = 1.23$ ) (see Table 34).

For Factor 3: Relating to Experience the participants with Adult Education degrees reported a mean score of 21, which was the same as the mean established by Conti (2004) (see Table 33). This means the instructors tend to relate the student's prior experiences to the learning activities. Results for Factor 3 were not statistically significant,  $t(4) = .000, p = 1.00$ , with no effect size ( $d = 0$ ) (see Table 34).

For Factor 4: Assessing Student Needs the participants with Adult Education degrees reported a mean score of 18 while Conti (2004) established the mean at 13 (see Table 33). The mean score of 18 is much higher than either Group A of entrepreneurship instructors or Group B of workforce education instructors. The minimum score reported by this group was 13, the established mean, and maximum was 20 (see Table 34). These scores tend to indicate the instructors with Adult Education degrees consider their

students to be adults and seek to understand and assess their wants and needs before planning learning activities. Results for Factor 4 were statistically significant,  $t(4) = 3.627$ ,  $p = .022$ , with a large effect size ( $d = 1.62$ ) (see Table 34).

For Factor 5: Climate Building the participants with Adult Education degrees reported a mean score of 14.2, which was above the mean scores for the rest of the participating instructors, although it was below the mean of 16 established by Conti (2004) (see Table 33). While not necessarily being teacher-centered in this area, these particular instructors are more likely to create informal or friendly learning climates for their students. Among these instructors, there is only a range of two in the scores, and the standard deviation is a very small at .84. Since most of the instructors reported scores from 13 - 15, the results indicate this concept is one all the instructors tend to have similar styles and agreement with, regardless of their facility or their length of experience (see Table 34). Results for Factor 5 were statistically significant,  $t(4) = -4.81$ ,  $p = .009$ , with a large effect size ( $d = -2.14$ ) (see Table 34).

For Factor 6: Participation in the Learning Process the participants with Adult Education degrees reported a mean score of 11, which was, again, above the mean scores for the rest of the instructors, but below the mean of 13 established by Conti (2004) (see Table 33). These adult education instructors would be more likely to allow students to be involved in the actual evaluation of their performance than the other instructors. For this factor, there is only a range of four between the scores, and the standard deviation is 1.58. Since most of the instructors reported scores from 9 – 13, the results again indicate this concept is one all the instructors tend to have similar styles and agreement with, regardless of their facility or their length of experience (see Table 34). Results for Factor

6 were statistically significant,  $t(4) = -2.83, p = .047$ , with a large effect size ( $d = -1.27$ ) (see Table 34).

For Factor 7: Flexibility for Personal Development the participants with Adult Education degrees reported a mean score of 10.4 while the mean established by Conti (2004) is 13 (see Table 33). These scores indicate that the instructors are not necessarily as flexible in accommodating students in the classroom learning environment. Results for Factor 7 were not statistically significant,  $t(4) = -1.69, p = .166$ , with a medium effect size ( $d = -.756$ ) (see Table 34).

Table 34

*Statistical Analysis of PALS Factors of Instructors with Adult Education Degrees*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
Adult Educators	34.2	39	21	18	14.2	11	10.4
Minimum	24	28	16	13	13	9	7
Maximum	47	45	25	20	15	13	15
<i>t</i>	-.983	2.74	.000	3.63	-4.81	-2.83	-1.692
<i>SD</i>	8.64	6.52	3.32	3.08	.84	1.581	3.44
<i>d</i>	-.439	1.23	0	1.62	-2.14	-1.27	-.756
<i>p</i>	.381	.052	1.00	.022	.009	.047	.166

*N* = 5

## CHAPTER 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### *Overview*

This study examined the adult educational philosophies and teaching styles of the workforce education and entrepreneurship instructors within the State of Alabama using the PAEI and PALS survey instruments. 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 education and entrepreneurship instructors within the State of Alabama?
2. What differences exist in teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?
3. What relationships exist between the philosophical orientations and teaching styles of workforce education and entrepreneurship instructors within the State of Alabama?



## Summary

One hundred and eight sets of both the Philosophy of Adult Education Inventory (PAEI) and Principles of Adult Learning Scale (PALS) were returned from the entrepreneurship instructors and workforce instructors. The responding participants were primarily female (74%). The majority of the instructors had been employed for less than 5 years at their current facilities (69.4%). Half of the participants held educational degrees or certificates, and 91 had obtained college degrees (84.3%). Completed survey instruments were received from nine of the 29 entrepreneurship instructors (31%). The majority of the respondents identified their facility as an incubator (88.9%). They tended to have either MBA's (44.4%) or education degrees (33.3%). Most of the respondents were male instructors (88.9%). The respondents also reported an average of over 10 years employment with their entrepreneurship facility. The instructors also indicated they had worked with and trained adults for an average of over 16 years.

Ninety-nine sets of the survey instruments were returned from the 119 workforce education instructors. Most of these respondents were female (79.8%). Half the respondents reported some type of degree in education (50.5%), with five specifically indicating they held a degree in Adult Education. The average length of employment for these workforce education instructors was 5½ years. They reported an average of over 11 years experience working with and training adults.

On their PAEI survey instruments, the entrepreneurship instructors tended to report high scores in the progressive (66.7%) philosophy. These high scores indicate the instructors both identify and agree with philosophies in question. The progressive philosophy has influenced the development of modern adult education and is frequently

equated with vocational education. According to the instructors' scores, they identified with the behavioral (33.3%) philosophy. The instructors' identified and agreed with the radical (66.7%) and humanistic (33.3%) philosophies the least. However, none of the scores reflected any actual disagreement with any of the philosophies (see Table 35).

Table 35

*Overview of PAEI Means for Both Groups*

	B	L	P	H	R
	Mean				
Group A (n=9)	80.22	77.00	85.33	69.89	68.33
Group B (n=99)	86.13	74.90	85.28	71.64	71.49

*N = 108*

Two of the instructors (22.2%) agreed with all five educational philosophies, while five instructors (55.6%) agreed with four out of the five philosophies. The instructors who reported holding education degrees tended to report higher agreement with the behavioral, liberal, and progressive philosophies, while instructors with business degrees tended to report higher agreement with the progressive philosophy.

The workforce education instructors indicated they tended to agree with the behavioral (50.5%) as well as the progressive Philosophy (40.4%). In adult education, behaviorists focus on skills development, which emphasize job skill acquisition. The instructors identified least with the radical (38.3%), humanistic (35.3%), and liberal (27.2%) educational philosophies.

Only 4.6% of the scores in any of the sections indicated any disagreement with any of the philosophies, and only 11.1% of the sections indicated the participants were neutral toward the philosophy. However, none of the workforce education instructors strongly disagreed with any of the educational philosophies. Overall, the female workforce education instructors tended to have scores indicating a higher level of agreement and a smaller standard deviation across all five of the educational philosophies than the male instructors' scores.

Workforce education instructors who reported spending more than 30 years working with and training adult learners reported the lowest means for the five educational philosophies. However, these instructors still only indicated neutrality toward the philosophies rather than disagreement.

The difference between the two highest scores in each philosophy for the participants was very small. Thirty of the instructors (27.8%) had three points or less distinguishing between their top two philosophies, and 25 instructors had only four or five points variance between their two top scores (23.1%).

Overall, the participants also reported only slight differences between their two highest scores. Fifty-five of the participants (50.9%) had five or less points of difference between their two highest scores, and 30 (27.8%) had a difference of only three points or less. Eighteen participants (16.7%) had differences of ten or more points, and only five had differences of more than 15 points. Thirty-five of the participants (32%) had differences between six and nine points.

Almost half of both groups of 108 instructors agreed with all five educational philosophies (50.9%), and 37.0% agreed with four of the five philosophies. While none

of the participants strongly disagreed with any of the philosophies, there was a tendency of neutrality and disagreement towards two of them, specifically the radical and humanistic philosophies (see Table 36).

Table 36

*Comparison of Philosophical Agreement by Both Groups*

	w/ 5	w/ 4	w/ 3	w/ 2	w/ 1	w/ 0
Group A (n=9)	22.2%	55.6%	22.2%	0	0	0
Group B (n=99)	51.5%	28.3%	14.1%	3.0%	2.0%	1.0%

*N = 108*

This neutrality and disagreement is easy to understand in regards to the radical philosophy, which runs counter to mainstream educational philosophies. The radical educational philosophy views learners as being autonomous and equal with the teachers. Education is merely a vehicle for combating oppression, with the goal that knowledge and education give learners tools and enables them to bring about social changes.

However, the humanistic philosophy is closely identified with Knowles' description of learner-centered andragogical approach to education (Knowles, 1970). The philosophy is primarily learner-centered because the learner is considered motivated and self-directed.

Fifty instructors (46.3%) reported their highest level of agreement with the behavioral philosophy, and 47 (43.5%) for the progressive philosophy. Three participants (2.8%) scored highest in the humanistic, as well as three in the liberal philosophy and

only one instructor reported their highest level of agreement with the radical philosophy. Four instructors (3.7%) had identical highest agreement scores in two philosophies; three in Behavior and progressive, and one in progressive and humanistic

It is interesting that both groups of participants, the entrepreneurship instructors as well as the workforce education instructors, tended to report agreement with all five of the adult educational philosophies. None of the participants strongly disagreed with any of the philosophies, and only one participant disagreed with all five philosophies. Fifty-one percent of the participants agreed or strongly agreed with all five philosophies, and 37% agreed or strongly agreed with four of the philosophies. There were three instructors who agreed with only two philosophies, the behavioral and progressive philosophies, and two instructors that agreed with one philosophy each, either the liberal or humanistic philosophies (see Table 37).

Table 37

*PAEI Distribution According to Philosophical Agreement*

	B	L	P	H	R
Strong Agreement 95 – 105	24	0	17	2	1
Agreement 66 – 94	80	95	88	74	72
Neutral 56 – 65	2	12	1	24	25
Disagree 26 – 55	2	1	2	8	10

*N = 108*

One possible explanation for the extent of agreement among the instructors is due to a desire to fit in with the institution where the instructors are employed. When

educators agree with philosophies, like radical, which are outside of the educational mainstream, they tend to experience more conflict than instructors agreeing with mainstream educational philosophies (Elias & Merriam, 1995; Zinn, 2004). If an educational facility is promoting a behavioral or progressive stance toward entrepreneurship training or workforce education, it would be easier for an instructor to adopt similar philosophies. As Berger and Luckmann (1966) described institutions, the instructors tend to 'hang together' (p. 60).

The established mean for the PALS is 146, and the group mean is 134.86. Group A reported a mean score of 134.2, and Group B of 134.9. Because most of the reported scores fall below the established mean, the instructors overall tend to prefer teaching styles and learning environments that are more teacher-centered. However, while the mean scores for each group were very similar, there were differences in the ranges of the scores. The workforce education instructors had a much larger range of 99, which was 42 points higher than the range for the entrepreneurship instructors. This is due to two outliers at each extreme of the deviations. When the outliers were removed, the mean was only adjusted by .05, so both outliers were included in the statistical analyses (see Table 38).

Table 38

*Deviation Distribution of PALS Scores Among Both Groups*

	86 – 105	106 – 125	126 – 145	146 – 166	167 – 185
	3 Standard	2 Standard	1 Standard	1 Standard	2 Standard
	Deviations	Deviations	Deviation	Deviation	Deviations
	Teacher-Centered			Learner-Centered	
Group A ( <i>n</i> =9)	11.1%	22.2%	44.4%	22.2%	0%
Group B ( <i>n</i> =99)	2.0%	33.3%	40.4%	18.2%	6.1%

*N* = 108

The factor means for the entrepreneurship instructors in Group A are below the mean established by Conti for five or the seven factors (see Table 39). This would tend to indicate an overall commitment to teacher-centered learning. However, based upon the scores within the individual factors for the PALS, the entrepreneurship instructors are more learner-centered in their teaching style than other instructors. Overall, they reported low scores in personalizing instruction for their students; relating students' prior experiences to classroom activities, thus accommodating students within the classroom. They also do not tend to create informal learning climates for their students or allow their students to identify specific information they wished to learn. The entrepreneurship students would not be able to identify specific information they wished to learn, skills they wished to acquire, or problems they wished to solve. However, the entrepreneurship instructors do tend to assess the students' needs and use that information in planning

learning activities, and are more likely to accommodate the student within the learning environment.

The workforce education instructors reported a mean score in the teacher-centered range of the PALS. However, according to their factor scores, these instructors are likely to assess their students' needs and use that assessment in planning activities and personalizing lesson plans as well as providing self-paced methods which the students are able to dictate. The workforce education instructors are not likely to use their students' prior life experiences in classroom activities, or create informal learning climates. Rather the instructors would prefer rigid learning environments and formal instruction, and would not encourage students' development of lesson plans or course evaluation. The workforce education instructors are less likely than entrepreneurship instructors to accommodate students within the learning environment (see Table 39).

None of the instructors in either group scored at or above the established mean for Factor 5: Climate Building. This would indicate the instructors are very committed to rigid environments for learning, tend toward more formal instruction, and are not as involved in creating learning climates for their students (see Table 39).

None of the instructors scored above the established mean for Factor 6: Participation in the Learning Process. This would indicate the instructors are not likely to encourage student involvement in the development of lesson plans or evaluation of the course. The students would not have the ability to measure or evaluate their performance against the set learning objectives. There were even scores of zero for this factor indicating instructors were not likely to encourage any student involvement in the lesson planning, evaluation, or course development at all. However, previous factors produced



scores reflecting the personalization of instruction, even if students are not involved in the course development (see Table 39).

Table 39

*Overview and Comparison of the PALS Factors for Both Groups*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Established Mean	38	31	21	13	16	13	13
Group A Mean ( <i>n</i> =9)	40.6	24.4	19.4	14.8	12.7	10.2	12.1
Group B Mean ( <i>n</i> =99)	32.6	35.5	19.2	16.3	11.8	9.8	9.8
Adult Educators ( <i>n</i> =5)	34.2	39	21	18	14.2	11	10.4

*N* = 108

### Conclusions

The results of the PALS factors seem to indicate that a third of the instructors see themselves as facilitators encouraging discussion, even of controversial topics, emphasizing student personal fulfillment, and offering flexibility within the learning environment. Overall, the instructors are not likely to encourage any student involvement in the lesson planning or evaluation at all. They are also not likely to create informal learning climates, and prefer rigid learning environments and formal instruction. However, almost all of the instructors (88.9%) assess their students' needs and use that information in developing activities within the learning environment.

This trend toward teacher-centered behavior may be due to the role of instructors being, by nature, “hierarchical, with the teacher playing the dominant role” (Heimlich & Norland, 1994, p. 10). Additionally, Berger and Luckmann (1966) found that instructors, by nature, upon entering adult education facilities tend to begin expressing views of the institution and speaking the common and accepted language.

Despite evidence from researchers (Boone, Gartin, Buckingham, Odell, & Lawrence, 2001) that length of employment, gender, and educational level produced significant differences among the instructors, there did not appear to be any indication of those trends among these instructors. However, there were significant differences when scores were examined according to specific types of educational degrees.

The five instructors who reported Adult Education degrees provided interesting results. These instructors reported scores closest to the means established by Conti (2004), and tended to indicate through their factor scores they practiced learner-centered behaviors within their classrooms.

Most notably, the instructors indicated they view their students as adults and seek to understand and assess the students’ wants and needs before planning any learning activities. Knowles (1970) initially described four assumptions about adult learners and their unique characteristics: they take a more active role in pursuing education, they accumulate life experiences that aid in their learning process, they seek information based on needs, and they are more problem-centered and seek immediate application of knowledge. Kennedy (2003) paraphrased these points by saying “adults enter learning situations with more specific and immediate intention to apply newly acquired knowledge” (p. 3).

The instructors who have adult education degrees would have been exposed to Knowles and his assumptions about learners. This exposure to andragogical theory explains why the instructors are more likely to personalize instruction for their students and utilize self-paced methods the students dictate in the classroom, relate students' prior experiences to learning activities, create informal or friendly learning climates, and allow students to be involved in performance evaluation. It is worth noting that for two of these factors, the instructors reported standard deviations of less than 1.6, although the standard deviations were higher for other factors.

The highest PAEI scores were compared against the highest scores of the PALS according to their distribution by standard deviations. The PALS indicated the participants tended toward teacher-centered styles within their classrooms. They also scored highest in the behavioral and progressive philosophies (see Table 40).

It is interesting the only participant reporting agreement with the radical philosophy, a historically learner-centered philosophy, also reported a 127 on the PALS, at the low end of one standard deviation, indicating a commitment to the teacher-centered style. Additionally, two participants reported high scores for the humanistic educational philosophy, a more learner-centered teaching styles, but both scored within two standard deviations of the PALS mean, indicating a very strong commitment and support to a teacher-centered teaching style (see Table 40).

Thirty-five participants (31.2%), scored high in the progressive philosophy, focused on the learner, and reported PALS scores in the teacher-centered side scoring area. In fact, 13 of these participants (37.1%) fall within two standard deviations of the PALS, and one instructor shows extreme commitment to teacher-centered instruction

with a score of 102. Conversely, one instructor scored highest in the behavioral philosophy, teacher-centered, but reported a 171, two deviations above the PALS mean, indicating a strong commitment to the learner-centered area of the PALS (see Table 40).

Table 40

*Comparison of Highest PAEI Scores and PALS Scores for Both Groups*

	B	L	P	H	R
167 – 185	1	0	4	2	0
146 – 166	7	1	12	0	0
126 – 145	22	2	21	0	1
106 – 125	21	0	13	2	0
86 – 105	2	0	1	0	0

*N = 108*

A teacher adhering to the behavioral philosophy would emphasize job skill acquisition and act as a manager or controller directing lesson outcomes using standards based measurement, behaviorally based objectives, and reinforcement. The instructor would also design learning environments to meet established goals and extinguish undesirable behaviors. All teacher-student interactions should be favorable and positively reinforced, and the students should take active roles in their learning process.

Because the progressive philosophy has had a tremendous effect on adult education and its focus on vocational education, it is reasonable that it is one of the main philosophies reported by the instructors. The philosophy focuses on learners, and constantly adjusting education programs to meet adults' specific needs and situations.

The teacher's role is to transfer knowledge and use suggestions from students in planning learning activities, with teachers' evaluating the learning process.

The survey instruments were completed by instructors who had been informed their philosophy and teaching styles were being examined. The instructors may have answered according to what they perceived as the "right" answer, despite instructions that there were no "right" or "wrong" answers.

The instructors may have also felt pressure to adhere to institutional philosophies and teaching styles rather than to report their own personal beliefs. This tendency towards adherence is highly likely considering three separate entrepreneurship training facilities told me there was no need for more than one instructor to complete the survey instrument. At these three facilities, in particular, there was a belief that all instructors would hold the identical education philosophical beliefs and utilize identical teaching styles within their classrooms. Research has indicated the philosophical orientation of an institution or facility may impact the philosophy of the individual educators, and over time, cause a shift in personal philosophy, which would then impact teaching style (Zinn, 2004).

A few workforce education instructors made notations on their returned surveys indicating their teaching style was restricted because of the particular type of course they were teaching, and therefore, they were not able to exercise as much freedom within their classroom as they would like. They did not indicate the origin of this pressure to utilize a different teaching style for these particular courses.

## Recommendations

This study examined only the philosophies and teaching styles of workforce education and entrepreneurship instructors within the State of Alabama. It would be beneficial to compare the results of instructor philosophy and teaching style in different economic regions. Test scores from the economically depressed delta region could be compared and contrasted to other more prosperous regions in the South. Comparisons could also be made to areas, like the Appalachian region, which focused on entrepreneurship as a means to revive economically depressed areas; or to look specifically at micro-enterprise-rich and economically prosperous areas like the San Francisco Bay Area.

Because literature indicates that most teachers do not reflect upon their philosophy and teaching style, the study could be repeated within this same population. This would allow researchers to examine whether the instructors had altered their philosophies and teaching style based upon the examination. There may also be philosophical intervention from the facility regarding awareness of the importance of understanding

No information was collected defining the learner population for the facilities. Demographic information regarding the adult learners, or students within the programs, would provide additional insight into the classroom dynamics. Additional research could be conducted to investigate whether any particular student demographics impact the instructor philosophy and teaching style. There may be a difference in the teaching styles among workforce education and entrepreneurship instructors for undereducated or underemployed learners as opposed to previously employed and well-educated learners.

Instructors may have differing educational philosophies depending when they spend a majority of time with specific demographics of learners. If a specific demographic is prominent in a particular region, it may also impact the instructor's philosophy and teaching style.

It might also be useful to incorporate interviews with the instructors and observation of the actual classroom environments to provide a comparison to the results of the survey instruments. The objective analysis may provide an additional factor towards understanding the relationship between attitudes, beliefs, and behaviors for instructors.

Additional research and investigation of the survey instruments themselves may be warranted. It may be beneficial for researchers to conduct factor analysis on the PAEI to investigate whether each individual philosophy represented on the instrument is clearly represented and not represented by other stem items in each of the 15 questions.

Finally, it would be useful to examine the philosophies and styles of instructors who are specifically working with Hurricane Katrina and Rita refugees. Houston, for instance, has absorbed a tremendous number of the refugees, and may be utilizing entrepreneurship and workforce training as a way to integrate this particular population into the economy and business environment. Additionally, the trauma of the event would likely impact the needs of the students thereby changing the dynamic of the adult learners who are seeking entrepreneurship or workforce training.

## Implications

The administration for the training facilities, while recognizing the importance of providing the necessary and critical information and training for entrepreneurship, may not be aware the method of providing the training is equally important. The directors and instructors may not understand the importance of learner-centered, hands-on, or self-directed teaching styles for the adult learners enrolled in their programs. Zinn (2004) indicated that other concerns were driving philosophical and programming decisions in educational and training facilities in spite of the literature indicating learner-centered teaching styles may be more effective for entrepreneurship training:

it seemed as if the primary influences ... were factors such as the availability, affordability, and attractiveness of instructional materials; the popularity of a particular teaching strategy (e.g. behavioral objectives) or a teaching device (e.g. a speed reading machine); or the stated objectives of a funding agency (e.g. citizenship education for immigrants). (p. 39)

Brown (2003) proposed one reason adult educators utilize a teacher-centered style is because they have not received training in adult learning theory, and “have little education about and understanding of adult learning principles” (p. 3). Instructors who have received training regarding adult learning principles and have worked with learner-centered education theories are more likely to use learner-centered teaching styles in their classrooms.

The results of this research indicate that many instructors, whether involved with entrepreneurship training or workforce education, have not received schooling in adult education and do not have a solid grounding in adult learning principles (Brown, 2003; Caudron, 2000; de Chambeau, 1977; Kennedy, 2003). These results imply that these instructors may not have the necessary background information to enable them to make



educated choices about effective training for their students. The instructors would be unaware that their students are capable of identifying their own needs for information, and have arrived at the educational facility proactively seeking information with a problem centered mentality.

The instructors in the facilities who reported adult education degrees reported a mean score on the PALS above the established mean in the learner-centered region of the results. The other 103 participants reported scores below the established mean within the teacher-centered area of the instrument scoring range. Therefore, results from this study indicate that training in adult learning theory does tend to impact the teaching style of instructors. Because literature and best practices indicate that a learner-centered approach is more effective for entrepreneurship training, it would be beneficial to provide training in adult learning theory for workforce education and entrepreneurship instructors as entrepreneurship training should enable entrepreneurs with necessary knowledge and skills (Witte, 2005).

It would be beneficial to offer adult learning philosophy and theory courses in conjunction with continuing education for incubator and entrepreneurship training staff. It may also be beneficial for university and college small business development departments, particularly those with incubators and training facilities connected, to offer adult education as a part of the curriculum. Since most of the MBA's had been employed by the entrepreneurship facilities and they reported the lowest teacher-centered teaching style scores, additional training in adult education theory should be offered in connection to the instructor training program. This adult education training would be very beneficial

to the success of the entrepreneurship facility, particularly since MBA's are logical and effective mentors and instructors for the program.

The administration and directors of the workforce education and entrepreneurship training facilities may need to rethink their decisions about organizational philosophy, curriculum, and instructor development. They may benefit from an investigation into support training for instructors to improve their teaching styles for future entrepreneurs. The hiring practices may need to be investigated as well, to ensure that personnel departments are aware of the importance of the knowledge of adult education for instructors. Additionally, employees responsible for selecting or writing curriculum should be familiar with adult learning theory and work with instructors in personalizing the curriculum for the particular students enrolled in the program. Finally, facility directors would also benefit from an adult education background.

## REFERENCES

- Alabama College System, The (n.d.) *Workforce Development*. Retrieved June 22, 2006, from <http://www.acs.cc.al.us/aed/Overview.aspx>.
- Apps, J. W. (1985). *Improving practice in continuing education*. San Francisco: Jossey-Bass.
- Ashmore, M. C., Larson, R., Mahoney, J., & Leiken, S. (2000, September 17-19). *Innovative strategies to support entrepreneurs: Education entrepreneurs*. Paper presented at the Tools for Entrepreneurship: Building New Economies in Rural America. Conference Proceedings, Clermont County, Ohio.
- Baldwin, F. D. (1999). A factory without walls: Microbusinesses in Appalachia. *Appalachia*, 32(3), 2-7.
- Bassi, L. J., & van Buren, M. E. (1999). *The 1999 ASTD state of the industry report: The American Society for Training & Development*.
- Beder, H. (1989). Purposes and philosophies of adult education. In S. Merriam & P. Cunningham (Eds.), *Handbook of adult and continuing education* (pp. 37-48). San Francisco: Jossey-Bass.
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, New York: Doubleday.

- Boone, H. N., Buckingham, C. R., Gartin, S. A., Lawrence, L. D., & Odell, K. S. (2002). Adult education philosophies practices by agricultural education teachers in Pennsylvania, Virginia, and West Virginia. *Journal of Agricultural Education*, 43(3), 37-45.
- Boone, H. N., Gartin, S. A., Buckingham, C. R., Odell, K. S., & Lawrence, L. D. (2001, December 12). *Philosophies of adult education as practiced by agricultural education teachers*. Paper presented at the 28th Annual National Agricultural Education Research Conference, New Orleans, LA.
- Bredo, E. (1997). The social construction of learning. In G. D. Phye (Ed.), *Handbook of Academic Learning: Construction of Knowledge* (pp. 3-45). San Diego: Academic Press.
- Brookfield, S. D. (1990). *The skillful teacher: On technique, trust, and responsiveness in the classroom*. San Francisco: Jossey-Bass.
- Brostrom, R. (1979). Training style inventory (TSI). In J. E. Jones & J. W. Pfeiffer (Eds.), *The 1979 Annual Handbook for Group Facilitators* (Vol. 8th Annual, pp. 92-98). La Jolla, CA: University Associates, Inc.
- Brown, B. L. (2003). *Teaching style vs. learning style* (Report). Columbus, OH: Center on Education and Training for Employment.
- Caffarella, R. S., & Merriam, S. B. (2000). Linking the individual learner to the context of adult learning. In A. L. Wilson & E. R. Hayes (Eds.), *Handbook of Adult and Continuing Education* (pp. 55-70). San Francisco: Jossey-Bass.
- Caudron, S. (2000). Learners speak out: What actual learners actually think of actual training. *Training and Development*, 54(4), 52-57.

- Cole, G. S., & Ulrich, T. A. (1987). Toward more effective training of future entrepreneurs. *Journal of Small Business Management*, 25(4), 32-38.
- Conti, G. J. (1982). The principles of adult learning scale. *Adult Literacy and Basic Education, Spring*, 135-147.
- Conti, G. J. (1985). Assessing teaching style in adult education: How and why? *Lifelong Learning: An Omnibus of Practice and Research*, 8(8), 7-11, 28.
- Conti, G. J. (2004). Identifying your teaching style. In M. W. Galbraith (Ed.), *Adult Learning Methods: A Guide for Effective Instruction* (3rd ed., pp. 75-91). Malabar, FL: Krieger Publishing Company.
- Conti, G. J., & Welborn, R. B. (1986). Teaching-learning styles and the adult educator. *Lifelong Learning: An Omnibus of Practice and Research*, 9(10), 20-24.
- Creswell, J. W. (2003). *Research design: qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks: Sage Publications.
- Cross, K. P. (1991). *Adults and learners: Increasing participation and facilitating learning*. San Francisco: John Wiley & Sons.
- da Silveira, M. A., da Silva, M. S., Kelber, C. R., & de Freitas, M. R. (1998). *Hands-On teaching and entrepreneurship development*. Rio de Janeiro, Brazil: Report to the International Conference on Engineering Education.
- Darkenwald, G. G. (1989). Enhancing the adult classroom environment. In E. Hayes (Ed.), *Effective Teaching Styles* (Vol. 43, pp. 67-75). San Francisco: Jossey-Bass.
- Davenport III, J. (1987). Is there a way out of the andragogy morass? *Lifelong learning: An omnibus of practice and research*, 11(3), 17-20.

- Day, M., & Amstutz, D. D. (2003). *Beyond philosophical identification: Examining core values in adult education*. Paper presented at the Adult Education Research Conference, San Francisco State University, San Francisco.
- de Chambeau, F. (1977). Why? What? or How?: Philosophy as a priority for educators of adults. *Adult Leadership*, 25(10), 308.
- Dewey, J. (1916). *Democracy and education*. New York: Macmillan.
- Dewey, J. (1938). *Experience and education*. New York: Macmillan.
- Elias, J. L., & Merriam, S. B. (1995). *Philosophical foundations of adult education* (2nd ed.). Malabar, FL: Krieger Publishing Company.
- Ferraro, J. M. (2000). Reflective practice and professional development. *ERIC Clearinghouse on Teaching and Teacher Education*.
- Fischer, B. B., & Fischer, L. (1979). Styles in teaching and learning. *Educational Leadership*, 36(4), 245-251.
- Fitzgibbons, R. E. (1981). *Making educational decisions: An introduction to philosophy of education*. New York: Harcourt Brace Jovanovich, Inc.
- Freire, P. (1970). *Pedagogy of the oppressed* (M. B. Ramos, Trans. 30th Anniversary Edition ed.). New York: Continuum International.
- Galbo, C. (1998). Helping adults learn. *Thrust for Educational Leadership*, 27(7), 13-17.
- Galbraith, M. W. (2000). Philosophy and the instructional process. *Adult Learning*, 11(2), 11-13.
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: an introduction* (6th ed.). New York: Longman.

- Gay, L. R., & Airasian, P. (2000). *Educational research: Competencies for analysis and application* (6th ed.). Upper Saddle River, New Jersey: Prentice-Hall.
- Gibson, D. V., & Conceicao, P. (2003). Incubating and networking technology commercialization centers among emerging, developing, and mature technopoles worldwide. In L. V. Shavinina (Ed.), *International Handbook on Innovation* (pp. 739-749): Elsevier Science Ltd.
- Glenn, J. M. (2000). Teaching the net generation. *Business Education Forum*, 54(3), 6-14.
- Gray, D. (1992). Entrepreneurship training: an alternative to traditional job training programs. *Economic Development Review*, 10(1), 82.
- Gredler, M. E. (2001). *Learning and instruction: theory into practice* (4th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Harper, M. (1995). Evaluating entrepreneurship development programmes in practice. *British Journal of Education and Work*, 26(4), 1-5.
- Heimlich, J. E., & Norland, E. (1994). *Developing teaching style in adult education*. San Francisco: Jossey-Bass.
- Henry, C., Hill, F. M., & Leitch, C. M. (2004). The effectiveness of training for new business creation. *International Small Business Journal*, 22(3), 249-271.
- Hirshberg, D. (1991). The role of the community college in economic and workforce development. *ERIC Clearinghouse for Junior Colleges*.
- Holmes, G., & Abington-Cooper, M. (2000). Pedagogy vs. Andragogy: A false dichotomy? *The Journal of Technology Studies*, 26(2), 50-55.
- Houle, C. O. (1980). *Continuing learning in the professions*. San Francisco: Jossey-Bass.

- Hughes, C. L. (1997). Adult education philosophies and teaching styles of faculty at Ricks College. *Dissertation Abstracts International*, 58, P4204. (University Microfilms No. DA9816315)
- Joyce, B., & Showers, B. (1995). *Student achievement through staff development: Fundamentals of school renewal* (2nd ed.). White Plains, NY: Longman Publishers.
- Kennedy, R. C. (2003). Applying principles of adult learning: The key to more effective training programs. *FBI Law Enforcement Bulletin*, 72(4), 1-5.
- Kerka, S. (1994). *Self-directed learning: myths and realities* (Report). Washington, DC: Office of Educational Research and Improvement.
- Keyton, J., Tansky, J., & Mangum, S. L. (1988). Small business training as a strategy to assist displaced workers: an Ohio pilot project. *Journal of Small Business Management*, 26(4), 14-21.
- Klofsten, M. (2000). Training entrepreneurship at universities: A Swedish case. *Journal of European Industrial Training. Bradford*, 24(6), 337.
- Knowles, M. S. (1970). *The modern practice of adult education: Andragogy versus pedagogy*. New York: Association Press.
- Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. Englewood Cliffs, NJ: Cambridge Adult Education.
- Knowles, M. S. (1977). *The history of the adult education movement in the United States* (Revised Edition ed.). New York: Krieger.
- Knowles, M. S. (1979). Andragogy revisited part II. *Adult Education*, 30(1), 52-53.



- Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*. New York: Cambridge: the adult education company.
- Knowles, M. S., Holton III, E. F., & Swanson, R. A. (1998). *The adult learner: The definitive classic in adult education and human resource development* (5th ed.). Woburn, MA: Butterworth-Heinemann.
- Knox, A. B. (1986). *Helping adults learn: A guide to planning, implementing, and conducting programs*. San Francisco: Jossey-Bass.
- Kozol, J. (1991). *Savage Inequalities: Children in America's Schools*. New York: Harper Perennial.
- Ladzani, W. M., & van Vuuren, J. J. (2002). Entrepreneurship training for emerging SMEs in South Africa (Global Perspective). *Journal of Small Business management*, 40(2), 154-161.
- Lichtenstein, G. A., & Lyons, T. S. (1996). *Incubation new enterprises: A guide to successful practice*. Washington, D.C.: The Aspen Institute.
- Martin, J. W. (1999). Adult education philosophies and teaching styles of construction management faculty of the Associated Schools of Construction. *Dissertation Abstracts International*, 60, P3588. (University Microfilms No. DA60110).
- Maslow, A. (1976). Education and peak experience. In C. D. Schlosser (Ed.), *The Person in Education: A Humanistic Approach*. New York: Macmillan.
- McKenzie, L. (1985). Philosophical orientations of adult educators. *Lifelong Learning: An Omnibus of Practice and Research*, 9(1), 18-20.
- Mezirow, J. (1978). Perspective transformation. *Adult Education*, 28(2), 100-110.

- National Business incubation Association (n.d.) *NBIA Member Directory – Service Providers*. Retrieved June 22, 2006, from [http://www.nbia.org/resource\\_center/service\\_provider\\_directory/index.php](http://www.nbia.org/resource_center/service_provider_directory/index.php).
- Nelson, R. E., & Mburugu, J. B. (1991). Exporting entrepreneurship: In Kenya they teach students to create jobs. *Vocational Education Journal*, 66(5), 34-35, 46.
- Nuckles, C. R. (1999). Student-centered teaching: making it work. *Adult Learning*, 11(4), 5-6.
- O'Brien, M. D. (2001). Teaching style and teaching philosophy of rehabilitation educators, *Dissertation Abstracts International*, 62, P2658. (University Microfilms No. DA3023943).
- Price, D. W. (2000). Philosophy and the adult educator. *Adult Learning*, 11(2), 3-5.
- Rachal, J. R. (1994). *Andragogical and pedagogical methods compared: A review of the experimental literature* (Report). Hattiesburg: University of Southern Mississippi.
- Rose, A. D. (2000). Philosophy is not a diagnosis. *Adult Learning*, 11(2), 20-22.
- Roth, G. L. (1987). Developing a personal philosophy for technical training: Sometimes technical trainers forget why they are where they are. Sometimes they need to take a close, philosophical look at their goals. *Training and Development Journal*, May, 59-61.
- Seidel, V. (2001, June). *The dynamics within high-technology incubators: The impact of incubators management practices on resident start-ups*. Paper presented at the Babson College/Kauffman Foundation Entrepreneurship Research Conference, Jonkoping International Business School, Jonkoping, Sweden.

- Skinner, B. F. (1968). *The technology of teaching*. New York: Appleton-Century-Crofts.
- Smith, R. M. (1982). *Learning how to learn: Applied theory for adults*. New York: Cambridge, The Adult Education Company.
- Soto, E. (2002). *Understanding self-employment success among participants of microenterprise training programs*. Unpublished Sociology, Public and Social Welfare, The American University.
- Spurgeon, L. P., & Moore, G. E. (1997). The educational philosophies of training and development professors, leaders, and practitioners. *Journal of Technology Studies*, 23(2), 11-19.
- Stenhouse, D. (1985). *Active philosophy in education and science: Paradigms and language games*. London: George Allen & Unwin.
- Strom, B. T. (1996). The role of philosophy in education-for-work. *Journal of Industrial Teacher Education*, 33(Winter), 77-82.
- Tisdell, E. J., & Taylor, E. W. (2000). Adult education philosophy informs practice. *Adult Learning*, 11(2), 6-10.
- Tough, A. (1990). Encouraging self-planned learning. In R. M. Smith (Ed.), *Learning to learn across the life span* (pp. 289-304). San Francisco: Jossey-Bass.
- Wan, V. K. (1988). Entrepreneurship workshop: An entrepreneurship training program in Australia. *Journal of Small Business Management*, 10(1), 32-35.
- Witte, J. E. (2005). A review of best practices of entrepreneurial trainers. *Entrepreneurship Policy Journal*, 2, 48-54.
- Yarzebinski, J. A. (1992). Understanding and encouraging the entrepreneur. *Economic Development Review*, 10(1), 32-35.

- Zinn, L. M. (1983). Development of a valid and reliable instrument for adult educators to identify a personal philosophy of adult education. *Dissertation Abstracts International*, 44, 1667A-1668A. (University Microfilms No. DA8323851).
- Zinn, L. M. (1994). *Notes on historical development and administration/scoring/interpretation*. Paper presented at the Challenge and Change: Proceedings of the 1994 Annual Conference, Nashville, TN.
- Zinn, L. M. (2004). Exploring your philosophical orientation. In M. W. Galbraith (Ed.), *Adult Learning Methods: A Guide for Effective Instruction* (3rd ed., pp. 39-74). Malabar, FL: Krieger Publishing Company.

## APPENDICES

## APPENDIX A

### PARTICIPANT INFORMATION LETTER FOR ENTREPRENEURSHIP INSTRUCTORS

# Auburn University

Auburn University, Alabama 36849-5221

Educational Foundations  
Leadership and Technology  
4036 Haley Center

Telephone: (334) 344-4460  
FAX: (334) 344-3072

#### INFORMATION SHEET for a Research Study Entitled

"Entrepreneurship Trainers in Alabama: Examination of Philosophy and Training Style"

November 1, 2005

You are invited to participate in a research study to investigate the philosophical orientations and teaching styles of entrepreneurship trainers in Alabama. This study is being conducted by Lisa Powell, 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 I identified you as a trainer with one of the organizations offering entrepreneurship education and training in Alabama. I will be contacting a variety of training providers, including universities, community colleges, incubators, Government and non-Government agencies, religious organizations, and other organizations.

If you decide to participate, I have included two survey instruments, Zinn's *Philosophy of Adult Education Inventory* (PAEI), and Conni'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. Because both surveys are self-scoring, I have included a separate copy of the scoring and information sheets for both surveys on yellow paper. You can immediately score your surveys and keep these copies of the results for yourself if you like. But please mail the completed surveys, printed on the white paper, to me using the enclosed return envelope by February 20, 2006.

These surveys provide you with an opportunity to access your personal educational 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.

HUMAN SUBJECTS  
OFFICE OF RESEARCH  
PROJECT #05-219 EX 0511  
APPROVED 11/6/05 KTOW

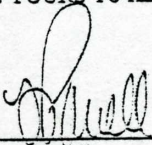
A LAND-GRANT UNIVERSITY

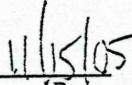
Your decision whether or not to participate will not jeopardize your future relations with Auburn University or Department of Educational Foundations, Leadership and Technology, or your place of employment.

If you have any questions I invite you to ask them now. If you have questions later, either Lisa Powell at 334-559-5070 (or email at [lpowell@auburn.edu](mailto:lpowell@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 or the Institutional Review Board by phone (334)-844-5966 or e-mail at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

  
\_\_\_\_\_  
Lisa Powell  
Doctoral Student, Adult Education  
Auburn, University

  
\_\_\_\_\_  
Date

HUMAN SUBJECTS  
OFFICE OF RESEARCH-  
PROJECT #67-243 EA 0511  
APPROVED *[Signature]*

Page 2 of 2

## APPENDIX B

### PARTICIPANT INFORMATION LETTER

#### FOR WORKFORCE EDUCATION INSTRUCTORS

# Auburn University

Auburn University, Alabama 36849-5221

Educational Foundations  
Leadership and Technology  
4036 Haley Center

Telephone: (334) 844-4460  
FAX: (334) 844-3072

#### INFORMATION SHEET for a Research Study Entitled

#### "Entrepreneurship Trainers in Alabama: Examination of Philosophy and Training Style"

February 24, 2006

You are invited to participate in a research study to investigate the philosophical orientations and teaching styles of adult basic education instructors in Alabama. This study is being conducted by Lisa Powell, 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 as a Basic Education instructor with one of the organizations offering education and training to adults in Alabama.

If you decide to participate, I have included 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 your preferred teaching styles. These surveys do not have "right" or "wrong" answers; they merely report your philosophy toward adult education and preference for a teaching style. The PAEI can be completed in about 20 minutes, and the PALS in about 15 minutes. Because both surveys are self-scoring, I have included a separate copy of the scoring and information sheets for both surveys on yellow paper for your own information. You are welcome to immediately score your surveys and keep these copies of the results for yourself if you like. **But please mail the completed surveys, printed on the white paper, to me using the enclosed return envelope by March 15, 2006.**

These surveys provide you with an opportunity to access your personal educational philosophy. Because the philosophy and teaching style are related, this kind of self awareness can enable you to evaluate your teaching behaviors within 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, because anonymous information has been provided, you will be unable to withdraw that data after participation since there will be no way to identify your individual information.

Page 1 of 2  
A LAND-GRANT UNIVERSITY

HUMAN SUBJECTS  
OFFICE OF RESEARCH  
PROJECT #05-218 EX 0511  
APPROVED 10/03/05 TO 10/02/06





APPENDIX C  
INSTITUTIONAL REVIEW BOARD

Auburn University

Auburn University, Alabama 36849



Office of Human Subjects Research  
307 Samford Hall

Telephone: 334-344-5966  
Fax: 334-344-4391  
hsubjec@auburn.edu

November 22, 2005

MEMORANDUM TO: Lisa Powell  
AED

PROTOCOL TITLE: "Entrepreneurship Trainers in Alabama: Examination of Philosophy and Training Style"

IRB File: #05-218 EX 0511

APPROVAL DATE: November 3, 2005  
EXPIRATION DATE: November 2, 2006

The referenced protocol was approved "Exempt" from further review under 45 CFR 46.101 (b)(2) by IRB procedure on November 3, 2005. 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 in any correspondence regarding this project.

If you will be unable to file a Final Report on your project before November 2, 2006, you must submit a request for an extension of approval to the IRB no later than October 15, 2006. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to November 2, 2006, 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.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 344-5966.

Sincerely,

A handwritten signature in cursive script, appearing to read "Niki L. Johnson".

Niki L. Johnson, JD, MBA, Director  
Office of Human Subjects Research  
Research Compliance Auburn University

cc: William Spencer  
James Witte

APPENDIX D

INSTITUTIONAL REVIEW BOARD

Auburn University

Auburn University, Alabama 36849



Office of Human Subjects Research  
307 Samford Hall

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

March 13, 2006

MEMORANDUM TO: Lisa Powell  
Educational Foundations, Leadership and Training

PROTOCOL TITLE: "Entrepreneurship Trainers in Alabama: Examination of Philosophy and Training Style"

IRB FILE: #05-218 EX 0511

APPROVAL DATE: November 3, 2005  
MODIFICATION DATE: March 8, 2006  
EXPIRATION DATE: November 2, 2006

The modification received on February 24, 2006 for the above referenced protocol was approved by IRB Procedure on March 8, 2006. The protocol will continue the designation "Exempt" under 45 CFR 46.101 (b)(2). You should report to the IRB any proposed changes in the protocol or procedures and any unanticipated problems involving risk to subjects or others. Please reference the above authorization number in any future correspondence regarding this project.

If you will be unable to file a Final Report on your project before November 2, 2006, you must submit a request for an extension of approval to the IRB no later than October 16, 2006. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to November 2, 2006, 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.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 344-5966.

Sincerely,

A handwritten signature in black ink, appearing to read "Niki L. Johnson".

Niki L. Johnson, JD, MBA, Director  
Office of Human Subjects Research  
Research Compliance Auburn University

cc: William Spencer  
James Witte

APPENDIX E

DEMOGRAPHIC INFORMATION SHEET

This information is for demographic purposes only.

Gender            Male \_\_\_\_\_ Female \_\_\_\_\_

Length of employment at this facility    \_\_\_\_\_ years    \_\_\_\_\_ months

Length of experience in Adult Education \_\_\_\_\_ years    \_\_\_\_\_ months

Education & Degree (*i.e., BA Accounting, MA Business, etc.*) \_\_\_\_\_

Would you say most of your experience is in:

Business \_\_\_\_\_    Education \_\_\_\_\_    Training \_\_\_\_\_

Type of Entrepreneurship Organization (Check any that apply)

Government Funded \_\_\_\_\_ University/Community College \_\_\_\_\_ Grant Funded \_\_\_\_\_

Incubator \_\_\_\_\_ Chamber of Commerce \_\_\_\_\_ Privately Funded \_\_\_\_\_

Business Resource Center \_\_\_\_\_ Training Program \_\_\_\_\_ Religious Organization \_\_\_\_\_

APPENDIX F

PAEI SURVEY INSTRUMENT



Lorraine M. Zinn, Ph.D.  
Rev. August 1999



[NOTE: THIS REFORMATTED VERSION OF THE PAEI® IS TO BE USED FOR RESEARCH PURPOSES ONLY, WITH THE EXPLICIT PERMISSION OF THE AUTHOR. FOR ANY OTHER USES, THE BOOKLET FORMAT IS THE ONLY APPROVED FORMAT. LMZ 2003]

The *Philosophy of Adult Education Inventory (PAEI)*® is an assessment instrument designed to help adult educators identify a personal philosophy of education and compare it with prevailing philosophies of adult education. The *PAEI*® can be self-administered, self-scored, and self-interpreted. (Copyrights 1983, 1994, 1999. All rights reserved.)

Validity and reliability test data for the *Philosophy of Adult Education Inventory*® are summarized in Zinn, L. M. (1983). Development of a valid and reliable instrument to identify a personal philosophy of adult education. *Dissertation Abstracts International*, 44, 1667A-1668A. (University Microfilms No. DAB323851)

A K-12 version of this instrument, the *Philosophy of Education Inventory*® (PEI), is also available.

### WHO IS AN ADULT EDUCATOR?

The term "adult educator" may describe anyone who helps adults learn something, gaining knowledge, skills, and attitudes for a variety of purposes. Adult education may occur in formal or informal educational settings; for academic credit or not-for-credit; through individual tutoring, classroom teaching, informal discussion groups, computer-based training, and distance education. Adult educators are sometimes called:

- trainers
- tutors
- facilitators
- religious leaders
- cooperative extension agents
- instructional designers
- mentors
- health educators
- community service educators
- workshop/seminar presenters

### WHY SHOULD I "LABEL" MYSELF?

"Labeling" is not the primary purpose of the *Philosophy of Adult Education Inventory*®. This self-assessment tool is designed to provide a quick and easy-to-use device and information that will help you reflect on your own personal beliefs and values relevant to your work in adult education. You may find that the "labels" or categories of adult education philosophies help you to:

- Better understand the diversity of our professional field.
- See how closely you are aligned with specific adult education purposes, roles, and concepts.

Further your professional development by identifying the key teaching methods, people, practices, and programs that are representative of your personal philosophy (or primary philosophies) of adult education.

Published by:  
Lifelong Learning Options  
4757 West Moorhead Circle  
Boulder, CO 80303-6157 USA  
FAX: 303-499-7341  
E-mail: llozinn@scentral.com

Copyrights © 1983, 1994, 1999 by Lorraine M. Zinn

All rights reserved. No part of this document may be reproduced in any form by any electronic or mechanical means without written permission.

**INSTRUCTIONS FOR COMPLETING THE PAEI®**

Each of the fifteen (15) items on the Inventory begins with an incomplete sentence, followed by five different options that might complete the sentence. Underneath 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!**

**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. Transfer each of your numbers from the rating scales to the Scoring Matrix located 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: c, h, a, d, f. Record **all five** of your responses for item #1, then continue with #2 through #15. When you finish, there will be numbers in **every other square** in the Scoring Matrix (like a checkerboard).

Then, add all the numbers by columns, from top to bottom, so that you have ten separate subtotals. None of these subtotals should be higher than 56; nor should any be lower than 7. For TOTAL SCORES, combine the subtotals from the columns on the Scoring Matrix, as indicated below.

NOTE: Final scores should be no higher than 105, nor lower than 15.

B (c + w) = _____	L (a + v) = _____	P (d + x) = _____
H (f + y) = _____	R (h + z) = _____	

**PLEASE COMPLETE THE SCORING MATRIX ON THE NEXT PAGE.**

STRONGLY DISAGREE      1   2   3   4   5   6   7  
 STRONGLY AGREE

STRONGLY DISAGREE      1   2   3   4   5   6   7  
 STRONGLY AGREE

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

Clearly identify the results I want and develop a class or program that will achieve those results.  
 1   2   3   4   5   6   7 (c)

Identify, with equal participation from learners, significant social, cultural, political and/or economic issues, and plan learning activities that will help learners contribute to social change.  
 1   2   3   4   5   6   7 (h)

Begin by selecting content or subject matter that is likely to benefit learners for the rest of their lives.  
 1   2   3   4   5   6   7 (a)

Assess learners' needs and develop practical learning activities based on those needs.  
 1   2   3   4   5   6   7 (d)

Find out what is of greatest interest to learners and plan learning activities around those interests, even if I may not agree about their importance.  
 1   2   3   4   5   6   7 (f)

2. PEOPLE LEARN BEST:

When 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 open discussion and critical reflection with others, both inside and outside of a structured learning environment.  
 1   2   3   4   5   6   7 (z)

When they can make self-directed choices about learning methods and outcomes.  
 1   2   3   4   5   6   7 (y)

From an "expert" who thoroughly knows the subject matter.  
 1   2   3   4   5   6   7 (v)



STRONGLY DISAGREE      1   2   3   4   5   6   7  
 STRONGLY AGREE

3. THE PRIMARY PURPOSE OF ADULT EDUCATION IS:

To facilitate the personal growth and development of each learner.

1   2   3   4   5   6   7 (f)

To increase learners' awareness of the need for significant changes in our culture and society, and to enable them to contribute to such changes.

1   2   3   4   5   6   7 (h)

To increase learners' knowledge and develop conceptual or theoretical understanding across a broad range of content, concepts, and principles.

1   2   3   4   5   6   7 (a)

To increase the learners' capacity to solve everyday problems and fully participate in the society in which they live.

1   2   3   4   5   6   7 (d)

To develop the learners' competency and mastery of specific knowledge and skills, so they can meet certain standards or expectations.

1   2   3   4   5   6   7 (c)

STRONGLY DISAGREE      1   2   3   4   5   6   7  
 STRONGLY AGREE

4. THE MOST VALUABLE THINGS PEOPLE KNOW:

Are learned by studying or working cooperatively with others, solving problems along the way.

1   2   3   4   5   6   7 (x)

Are learned through critical or reflective thinking focused on issues in our culture and society—past, present, and future.

1   2   3   4   5   6   7 (z)

Are learned through a structured learning process or guided instruction that consistently helps them to find the right answers.

1   2   3   4   5   6   7 (w)

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

1   2   3   4   5   6   7 (y)

Are learned through a broad-based, comprehensive educational process rather than technical training or highly specialized education.

1   2   3   4   5   6   7 (v)

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

**6. DECISIONS ABOUT INSTRUCTIONAL CONTENT SHOULD BE BASED ON:**

Consultation with learners about what is most important and/or interesting to them.

1 2 3 4 5 6 7 (f)

An assessment of what learners already know and what the teacher (or school/training organization) believes they should learn next.

1 2 3 4 5 6 7 (c)

Current social, cultural, political, and/or economic situations and issues.

1 2 3 4 5 6 7 (h)

A consideration of learners' "real-life" needs and problems outside the classroom.

1 2 3 4 5 6 7 (d)

Generally agreed-upon content for a "well-rounded" education.

1 2 3 4 5 6 7 (a)

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

**6. GOOD ADULT EDUCATORS START PLANNING INSTRUCTION:**

By considering the specific outcomes (knowledge, skills and attitudes) they are looking for and the most effective ways of achieving these outcomes.

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 theoretical principles to be taught.

1 2 3 4 5 6 7 (v)

By identifying social, cultural, political, and/or economic 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)

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 well structured, with clear behavioral objectives and built-in feedback loops for 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 real life problems.

1    2    3    4    5    6    7    (d)

Where I can organize the subject matter in a logical way and build a solid foundation for future learning.

1    2    3    4    5    6    7    (a)

Where the learners have some awareness of social, cultural, economic, 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:**

An opportunity for learners to make application of new knowledge, concepts, and skills to "real-world" situations.

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 structured environment that keeps learners focused and moves them systematically toward the intended learning outcomes.

1    2    3    4    5    6    7    (w)

A conceptual understanding of the breadth and depth of what is to be 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)

STRONGLY DISAGREE      1   2   3   4   5   6   7  
 STRONGLY AGREE

**9. WHILE ENGAGED IN LEARNING, THE LEARNERS' FEELINGS:**

Are crucial to the learning process and must be brought to the surface in order for adults to fully engage in any learning activity.

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)

Reflect the uniqueness of each individual and should be expressed and valued in the learning process.

1   2   3   4   5   6   7 (f)

Are handled effectively by the skillful adult educator to achieve the learning objectives.

1   2   3   4   5   6   7 (c)

Are not as important as what learners are *thinking*.

1   2   3   4   5   6   7 (a)

STRONGLY DISAGREE      1   2   3   4   5   6   7  
 STRONGLY AGREE

**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 offer constructive feedback so that learners can get the right answers and learn essential skills.

1   2   3   4   5   6   7 (w)

Are mostly non-directive, encouraging people to take responsibility for their own learning.

1   2   3   4   5   6   7 (y)

Involve learners in discussion and critical examination of controversial issues.

1   2   3   4   5   6   7 (z)

Are designed primarily to help learners improve their thinking and reasoning abilities.

1   2   3   4   5   6   7 (v)

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

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

**11. WHEN LEARNERS ARE UNINTERESTED IN A SUBJECT, IT IS PRIMARILY BECAUSE:**

They don't realize how seriously their lives and their future may be impacted by the issue being studied.

1 2 3 4 5 6 7 (h)

They don't see any immediate benefit for their daily lives.

1 2 3 4 5 6 7 (d)

The teacher does not know the subject thoroughly enough to get the learners motivated.

1 2 3 4 5 6 7 (a)

They are not getting enough practice or feedback during the learning process.

1 2 3 4 5 6 7 (c)

That subject isn't a high priority for them personally; they are more interested in something else.

1 2 3 4 5 6 7 (f)

**12. DIFFERENCES AMONG ADULT LEARNERS:**

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

1 2 3 4 5 6 7 (v)

Enable them to learn best on their own time and in their own way, and should be valued and strongly supported.

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 are extremely relevant to the educational process.

1 2 3 4 5 6 7 (z)

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

1 2 3 4 5 6 7 (w)

STRONGLY DISAGREE      1   2   3   4   5   6   7  
 STRONGLY AGREE

13. EVALUATION OF LEARNING OUTCOMES:

Is not of great importance and is not easily accomplished, since the impact of learning may not be evident until much later.

1   2   3   4   5   6   7 (h)

Should be built into the educational process 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 a teacher know how much information and conceptual understanding each learner has acquired.

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      1   2   3   4   5   6   7  
 NEUTRAL  
 STRONGLY AGREE

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

Set clear expectations, guide learners through structured learning activities, and provide well-directed feedback.

1   2   3   4   5   6   7 (w)

Introduce learners to a broad range of information and ways of thinking about the world.

1   2   3   4   5   6   7 (v)

Help adults "learn how to learn" what is useful for their lives.

1   2   3   4   5   6   7 (x)

Increase learners' awareness of social, cultural, economic, and/or political issues and help them learn how to have an impact on societal conditions that need to be changed.

1   2   3   4   5   6   7 (z)

Facilitate, but not to direct, learning activities that are meaningful to each learner.

1   2   3   4   5   6   7 (y)

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

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

They lacked appreciation for the subject matter or the teacher's knowledge, or they found the intellectual challenge too demanding.

1    2    3    4    5    6    7    (a)

They need to repeat one or more educational activities until they can master the learning (or at least meet minimum standards).

1    2    3    4    5    6    7    (c)

It's okay, because they probably learned something else that they considered just as interesting or important.

1    2    3    4    5    6    7    (f)

They don't realize how the new knowledge will empower them to significantly impact the world in which they live.

1    2    3    4    5    6    7    (h)

It is probably because they are unable to make practical application of what was taught to problems in their daily lives.

1    2    3    4    5    6    7    (d)

Notes

**SCORING MATRIX**

ITEM	c	w	a	v	d	x	f	y	h	z
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
SUB-TOTALS										
ADD	c + w	a + v	d + x	f + y	h + z					
YOUR SCORES	B =	L =	P =	H =	R =					



## APPENDIX G

### PALS SURVEY INSTRUMENT

#### Principles of Adult Learning Scale (PALS)

**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. On your answer sheet, 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	Score
	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	_____

12. I plan units which differ as widely as possible from my student's 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 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 \_\_\_\_\_
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 judgments. 0 1 2 3 4 5 \_\_\_\_\_

28. I allow my students to take periodic breaks during class. 0 1 2 3 4 5 \_\_\_\_\_
29. I use methods that foster quiet, productive desk work. 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 \_\_\_\_\_
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.