

COMPARISONS OF LOCUS OF CONTROL EXPECTANCY  
UPON ENTRY IN PROGRAM OF ADULTS WHO  
DO OR DO NOT COMPLETE ONE  
TECHNICAL EDUCATION  
PROGRAM

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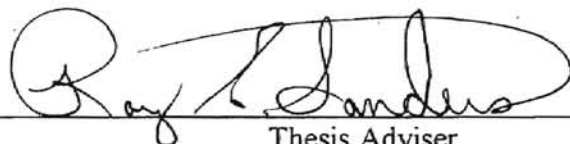
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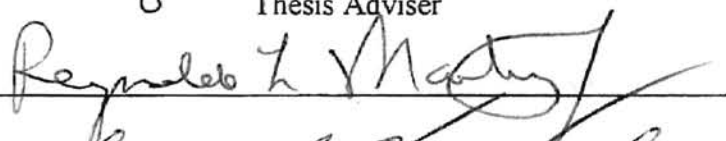
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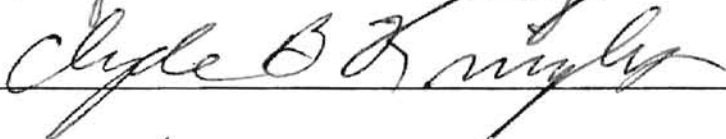


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## CHAPTER I

### INTRODUCTION

Ruth Kotinshy, an early leader in the adult education field, speaking during the depression era said, "If adult education is superficial to . . . men and women engaged in mortal struggle to survive . . . then it is indeed a comedy to which we are dedicating our lives" (Adrian, 1991, p. 31). Grattan pointed out that, ". . . adult education addressed to adults as adults and designed to assist them to live more successfully . . . is the real field of education" (Darkenwald and Merriam, 1982, p. 10-11). The call for social action on the part of adult educators, to meet the needs of the underclass in terms of providing successful skills for living is implicit in Darkenwald and Merriam's (1982, p. 141) urging of these educators to reach through the "psychosocial barriers to participation," in continued education that seems to inhabit many of America's poor population

There have been great demographic and economic changes within this country in the second half of this century that must have a major impact on adult education. The "browning of America," the "graying of America," and the changes of family structure are some of these demographic changes that powerfully effect the educational demands. We have seen a growing "blurring" of the lines between demographics, economics, and technology, that is closely linked with our "value system based on the political and

economic structure of capitalism” (Merriam and Caffarella, 1991, p. 1). The prolific writer in adult education, Beder, in 1987 stated that “the health of capitalistic society’s system can be gauged in terms of economic opportunity,” across the classes (p. 19).

If the health and perhaps the survival of American society is dependent on the underclass’s ability to access economic opportunity, then education, on all fronts, including adult vocational and technical education, must further develop efforts to reach the people needing its services. Beder writes, “the just society is the society that provides opportunity for underclasses to amass more income and material goods,” and adult education “helps learners acquire the skills and knowledge that make it possible to do so” (Merriam and Caffarella, 1991, p. 19).

Drobnies (1984) in an unpublished dissertation, compared the locus of control (LOC) expectancies of two groups of older adults in relation to participation in higher education. In reference to the Characteristics of Adult Learners and Chain of Response learning models developed by Cross (1981), Drobnies wrote that, “importance of goals and expectations that participation will meet goals,” is an outstanding predictor of participation in adult education (Drobnies, 1984, p. 36). In a discussion of LOC, Drobnies (1984) reports Lefcourts’s (1982) conclusion that the concept of locus of control is a valuable measure, though it must be cautioned that in human behavior, “the reinforcement and the expectancy of the ability to obtain a desired goal is an important as perceived control . . .” (p. 26).

While Drobnies (1984) did not find LOC to be a predictor of participation in higher education of older adults, as supported by her study, this study addressed the question of whether LOC may act as a predictor of completion of a course of study in



adult vocational and technical education. If LOC does act as a predictor, this would have important implications for vocational counseling and assessment.

According to the National Assessment of Vocational Education, the drop-out rate for students in the first half of a one year program is approximately 70 percent (Griffeth, 1991, p. 4).

Adult education must accept the responsibility of providing an avenue of upward mobility that can be accessed by all. For those that are “at risk” in this country, public adult education must be especially creative and valiant in crossing the barriers that stand in the way of upward progression. If external LOC is identified as a characteristic that may contribute to being “at risk” in terms of successful program completion, then perhaps changes in vocational counseling and in information presentation within adult education could lower the risk of failure.

#### Significance of the Problem

Adult education must further develop efforts to reach the people needing services. A 70 percent drop out rate for adult vocational students would indicate that there is much work to be completed, to better meet learner needs. Providing vocational-technical programs that meet the needs of the adult learner is a primary goal of adult education. Consideration of characteristics that might hinder successful completion of vocational program participation might help in developing successful presentation of styles of education for these people. Is LOC one of those characteristics that act as a predictor in successful adult vocational-technical program completion?

## Purpose

The purpose of this study was to determine if Locus of Control Expectancy acts as a predictor of successful adult vocational education program completion. Locus of Control (LOC) expectancy has been accepted by vocational psychologists as a useful predictor of job involvement, and internal LOC correlates positively with high job involvement (Riipinen, 1994). Studies conducted on efficacy beliefs indicate that they do act as an indicator for predicting learner success (Lent, Brown, and Larkin, 1986).

The relationship between expectancy and self-efficacy beliefs with successful participation in educational programs and employment have implications for vocational counseling toward helping clients to explore and modify efficacy and self-concept beliefs (Lent, et al., 1968). Assessment is used for program placement and monitoring to help insure “competency attainment and goal completion” (Rickard, Tiles, Posey and Equez, 1991, p. 10). Aiding the student in meaningful self-assessment implies that the student goes beyond being a “recipient” of education, to being “an active participant” (Agee, 1991, p. 8). One outcome of such self-assessment is “adult student empowerment through experience in the management of students’ own learning” (Duzart, Hayes, Keeton, Muskin, and Parkin, 1991, p. 5).

If LOC, which is related to self-concept and self-efficacy beliefs, (Hattie, 1992) does act as a predictor of technical program completion for the adult learner, this may have profound implications for vocational guidance, counseling and assessment. Specifically, the purpose of the study is to determine if locus of control expectancy acts as a predictor of successful adult technical program completion.

## Problem Statement

The problem this study addressed is the lack of knowledge of whether an adult learner's Locus of Control Expectancy affects the likelihood for completion of a private vocational program.

## Assumptions

For the purposes of this study, the following assumptions were accepted by this investigator.

1. The students involved in this study are representative of other students in similar technical trade programs.
2. The Rotter IE scale actually does test Locus of Control expectancy.
3. The students answered the questionnaire honestly.
4. Self-concept, self-efficacy and locus of control are all parts of a larger personality trait or character cluster.
5. As indicated in a number of studies, there is no substantial difference in LOC expectancy between males and females, nor is there a relationship between intelligence and LOC expectancy.

## Scope and Limitations

Students enrolled in the Tulsa Welding School have been used for this study. Tulsa Welding School reports having approximately 630 students enrolled in the seven month program, in a fiscal year. The Tulsa Welding School reports a “drop-out rate” of approximately 50 percent. “Starts” with new students occur at different times in each month of the year. In this study all students beginning the program in the months of August, and September, 1996 were given the Rotter IE test. There were 88 students beginning the program in those two months. However, of the 88 students, one did not follow the directions on the test, and that test score could not be included in the calculations. Thus, although the population size (N) for this study was 88, the actual sample size (S) was 87. This number falls well within the required sample size needed to produce a confidence level of .95 as identified by Krejcie and Morgan (Issaac and Michael, 1982).

## Operational Definitions

In this paper the following generalized definitions for these terms have been used:

Expectancy of Control - Refers to internal versus external Locus of Control (I-E LOC) where a general perception that one’s own actions are the cause of events is a generally internal view, while believing that the external environment is the cause of events in an external LOC.

Locus of Control - People’s beliefs about how much they, versus their environment, control the events of their lives (Rotter, Chance and Phares, 1972).

Self-Concept - One's cognitive appraisal of attributes about oneself (Lent, et al., 1986).

Self-Efficacy Expectations - One's beliefs about how well one can perform a specific task or behavior (Haittie, 1992).

Social Learning Theory - An extensive personality theory incorporating many of the principles established in the psychology of learning (Hampson, 1982) (Rotter's theory of LOC is a part of this much broader theory of learning).

Traits - Perceptions representing definite aspects of the personality constructs of needs, belief, and motivation (Lent, et al., 1986).

## CHAPTER II

### REVIEW OF LITERATURE

Man has been trying to understand causality and the balance between self-determination and fate for hundreds of years. Debate and interpretation of the issue continues still. This chapter includes a review of the literature regarding locus of control and its relation to behavior, self-concept and self-efficacy, and vocational counseling and assessment.

#### Locus of Control

In 1966, Rotter introduced the Rotter IE scale to test what he termed “expectancy of control,” a trait which he believed was significant within a broader personality theory called Social Learning Theory (Hampson, 1982, p. 27). Social Learning Theory is based on four predictive concepts of behavior, behavioral potential, expectancy, reinforcement value, and the psychological situation (Rotter, Chance and Phares, 1972). LOC generally refers to a person’s beliefs about how much the individual controls the events in his/her life, versus how much the external environment controls those same events. A person who has a high internal LOC would perceive personal actions to be the cause of events, while the person who attributes the external environment as being the cause of events is said to have an external LOC (Riipinen, 1994).

Since Rotter first introduced his Rotter IE scale, a number of scales have been developed to measure LOC, and the construct continues to elicit interest and active research within the broad field of behavioral science (Anastasi, 1988). Heider in 1958 provided a balance model, which attempted to explain control expectancy as a personal trait or descriptor important to self concept (Hattie, 1992).

### Locus of Control and Behavior

Belief about control, or control expectancy, effects behavior. Internal LOC is characterized by “acceptance of enterprising action,” while external LOC is associated with “rejection of enterprising action,” according to Kreitler (1990, p. 229). Behaviorally, people with an internal expectancy “seek out information which enables them to exert greater control over their environment,” such as pursuing education (Hampson, 1992, p. 35) and they believe that personal effort and positive outcome are intimately related (Hattie, 1992). Perception about the relationship between effort and rewards and punishments influence behavior (Hampson, 1992). Hampson states that whether behavior is exhibited is dependent on three factors, those being whether the actor has the ability to act, if the actor values the possible reward (or outcome) and the actor’s perception of the likelihood of receiving the reward.

Research indicates that not only does LOC effect behavior, but also that experience can effect LOC. In 1976, Andrisani and Nestel reported that their longitudinal study of over 3,000 adults indicated that internal LOC not only correlated positively with occupational success, but that occupational success enhanced internal LOC expectancy

(Anastasi, 1988). Related to this balance between experience and expectancy, Rotter, in discussing the concept of personality unity, wrote, "As the individual becomes more experienced, personality becomes increasingly more stable. He tends to select new experiences and interpretations of reality on the basis of previous conceptualizations" (Rotter, et al., 1972, p. 7).

A number of studies indicate that a high internal LOC correlates strongly with motivation toward achievement. On the other hand, Burlin's work in a 1976 study seemed to indicate that while people with a high internal LOC were more apt to aspire to and achieve success in traditionally "white collar," innovative occupations, people with external LOC tended toward more traditionally "blue collar" vocational interests, experiencing success in semi-skilled and unskilled labor (Burlin, 1976). In other words, there is some indication that LOC expectancy may be linked somehow with both choice of and success in vocational efforts.

Numerous studies have been done to determine if LOC and self-efficacy beliefs differed between males and females and between races, and how these differences might effect outcomes of vocational success. Generally these study outcomes agree with the Phares (1978) investigation which reported, "the relationship between I-E and demographic variables suggest that there are no sex differences in I-E, that whites tend to be more internal than blacks, and that middle-class subjects tend to be more internal than working-class subjects," and that there was no relationship between intelligence and I-E (Hampson, 1988, p. 35-36). Related to LOC, Rotter (1966) and Mirel (1970) found virtually no sex differences, though some studies -- for example, Joe (1971) have indicated that men are more often internal than women (Tyler and Gatz, 1977). Further, some



studies indicate that while internal LOC is a predictor of male academic success, it is not a predictor of female success (Tyler and Gatz, 1977).

### Self-Concept, Self-Efficacy and Locus of Control

A great number of studies have indicated that self-concept (what we believe to be true about ourselves), self-efficacy and LOC are highly inter-related, and profoundly effect behavior in terms of goal-setting and commitment to a chosen course of action (Hattie, 1992). In 1986, a study was published that reported that students who measured high in self-efficacy were “much more likely to persist in technical or scientific majors over a one-year period,” than those measuring low in self-efficacy (Lent, et al., 1986, p. 265).

Lefcourt intimated this relationship between LOC and self-efficacy when he stated that, “the concept of locus of control can be useful if one remembers . . . the value of the reinforcement and the expectancy of the ability to obtain a desired goal is as important as perceived control . . .” (Drobnies, 1984, p. 26). As Rotter, et al. (1972, p. 11) wrote, “The occurrence of behavior of a person is determined not only by the nature or importance of goals or reinforcements, but also by the person’s anticipation or expectations that these goals will occur.”

### Locus of Control and Vocational Assessment

Because of this apparent connection between beliefs about control and efficacy, and performance in the classroom and on the job, there is a call for vocational guidance and counseling that addresses this issue (Rotberg, et a., 1987).

Rickard stated that good assessment in the intake process assessed a learner's "overall ability" and that "assessment must be authentic and measure and predict what learners will do, what they will produce, and how they will most likely perform. Such assessment incorporates and integrates learners' skills, knowledge, and attitudes as in social interaction" (Rickard, 1991, p. 11).

Self-efficacy positively correlates with success at meeting academic and vocational goals. People who believe they can accomplish something are more likely to do so, both in the classroom and on the job. However, having a positive attitude, without having accompanying capabilities and skills, is not sufficient for "getting the job done." As Bandura (1977, p. 194) pointed out, "expectation alone will not (likely) produce desired performance if the component capabilities are lacking."

In vocational counseling, "a student's choice seems to indicate both a general direction and an implied prediction that exceeds chance," (Noeth and Jepsen, 1981, p. 25). For people who underestimate their own ability, enhancement of self-efficacy may well be an appropriate counseling goal, but where low self-efficacy is accompanied by lack of skill or ability, surely vocational guidance must focus on developing skills as well as positive self-concept (Lent, Brown, and Larking, 1984).

Because LOC has been clearly established as valid as a personality measure, Hampson writes that IE LOC investigation needs to now branch out to learn how it relates to the Social Learning Theory, and "how it can help in the understanding and prediction of behavior," (Hampson, 1982, p. 169). Richman (1992, p. 53), a writer for *Fortune* states, "More and more of tomorrow's jobs will require people who are not only skilled but also adaptable and able to keep learning. . . Technical aptitude is just a starting point for job

candidates. The company puts them (Richmond is referring here to factory workers for General Mills) through a battery of focused interviews to find the few self-motivated team players able to grow with the job.”

### Summary

Locus of control, along with self-concept and self-efficacy, three components of Adult Learning Theory, have been described as indicators, and even as predictors of successful job involvement, and studies indicate that they have predictive value for student success.

Vocational counseling and learner/program assessment should promote student and employee success.

Does locus of control correlate significantly with completion rate for students enrolled in technological programs? If LOC acts as a predictor of student behavior and success, then perhaps it should be a focus for vocational counseling and assessment.

## CHAPTER III

### PROCEDURES

Once again, the reason this study has been conducted is to determine if locus of control expectancy acts as a predictor of successful adult vocational education program completion, once a person has begun the program. The question has been asked, "Is there a significant correlation between locus of control expectancy and technical education program completion?"

All students who enrolled in the Tulsa Welding School, beginning in the months of August and September of 1996 were given the Rotter IE to complete, at the end of their first session of school. There were 88 students that began this seven month program, in those months. Of those 88 students, one did not complete the Rotter IE correctly, and that score could not be used. Out of an "N" (total population) of 88 students, the sample size (S) was 87, which assured that the sampling size used was well within the .95 level of confidence.

The students were given the Rotter IE to complete, along with some additional demographic information, and each student also was asked to give their social security number as an identification number at the end of the test. The directions for taking the Rotter IE were both printed on the forms and read to the students before they began filling

out the questionnaire. It was stressed that there was no right or wrong answer to each question, but that this study was done to find out how people felt about certain issues.

The students were assured that their participation was not required, and that no individual results would be shared with Tulsa Welding School personnel. No students refused to fill out the questionnaire, but one did not follow the directions read to the class, and printed on the forms. The student who did not follow the directions answered some questions by marking more than one answer as his choice. (Although a more elaborate scheme for providing total anonymity for the students was strongly suggested, the Tulsa Welding School administrator asked that Social Security numbers be used as the identifying source.)

The completed questionnaires were collected and scored individually. The Tulsa Welding School arranged the situation so that the school could be called at the end of the seven months, for each student, to see if the student (as identified by Social Security number) completed or dropped from the program. An uncorrelated t-Test (Martin, 1985) was used to see if there was a statistically significant difference of the mean score on the Rotter IE between the group of students completing the seven month program, and the group of students who dropped from the program before completion.

#### Instrument

Developed by Rotter and published in 1966, the validity of the Rotter IE as a scale measuring LOC has been well established and has been widely used in behavioral studies (Fleming, 1985). It is a forced choice, self report, 23-item inventory with six filler questions added. A copy has been placed at the back of this study report.

Phares in 1957 was the first to develop a locus of control expectancy instrument. This 26-question, Likert-type inventory had 13 questions that expressed internal attitudes, and 13 that expressed external attitudes (Rotter, et al., 1972). This instrument was used as a base for another LOC inventory, the Hames-Phares Scale, which went on to be expanded into a 60-item scale developed by Liverant, Rotter and Seeman, known as the Marlowe-Crown Social Desirability Scale (Rotter, et al., 1972). This 60-item scale was then reduced to the 23-item inventory with six additional filler questions, known as the Rotter IE, used in this study.

Testing data on the Rotter IE reveals that it is characterized by internal consistency, as well as test-retest reliability after a one-month period (Rotter, 1972). Test scores are given in terms of the number of external answers. Rotter reported that in a series of studies using this inventory, including, for example, samples of high school students, college students, prisoners and Peace Corps trainees, mean scores for these various populations ranged from 5.48 as a low, and 10.00 as a high. Rotter states about the IE scale the following:

Most significant evidence of the construct validity of the IE scale comes from predicted differences in behavior for the individuals above and below the median of the scale or from correlations with behavioral criteria. A series of studies shows strong support for the hypotheses that the individual who has a strong belief that he can control his own destiny is likely to (a) be more alert to those aspects of the environment which provide useful information for his future behavior, (b) take steps to improve his environment condition, (c) place greater value on skill or achievement reinforcements and be generally more concerned with his ability, particularly his failures, and (d) be resistive to subtle attempts to influence him (p. 294).

## CHAPTER IV

### RESULTS

A total of 88 students enrolled and began the seven month course at Tulsa Welding School in the months of August and September, 1996. Each student was given the Rotter IE to complete at their first session, but because one student did not complete the questionnaire correctly, only 87 scores were used for the sample study.

The mean score for this total population on the Rotter IE was 7.86 and individual scores ranged from 2 to 19. The mean score appears to be quite consistent with Rotter's findings, which he reported as being from 5.48 as a low, and 10.00 as a high mean score for various populations.

Of the 87 students, a total of 22 withdrew (approximately 25 percent) from the program, not completing it. A total of 52 students graduated from the program in the scheduled seven month period. Thirteen students, while not graduating on time, remained active in the program, working toward a delayed graduation.

Results showed that the mean score for the 22 students who withdrew from the program was 9.59. The mean score for the 65 students who graduated on time from the program or were still working toward a delayed graduation was 7.26. The mean score for the 52 students who actually graduated as originally scheduled was 7.21. The mean score for the 13 students continuing to work toward a delayed graduation was 7.46.

TABLE I  
SUMMARY OF UNCORRELATED T-TEST RESULTS FOR  
22 STUDENTS WHO WITHDREW  
AND 52 WHO GRADUATED

| Students                       | Mean | Standard Deviation |
|--------------------------------|------|--------------------|
| n1=22 (students who withdrew)  | 9.59 | 4.125              |
| n2=52 (students who graduated) | 7.21 | 2.38               |

t = 2.38  
P = .02 = 2.326

TABLE II  
SUMMARY OF UNCORRELATED T-TEST RESULTS FOR  
22 STUDENTS WHO WITHDREW AND  
65 STUDENTS WHO GRADUATED  
OR REMAINED ACTIVE

| Students                       | Mean | Standard Deviation |
|--------------------------------|------|--------------------|
| n1=22 (students who withdrew)  | 9.59 | 4.125              |
| n2=65 (students who graduated) | 7.26 | 3.18               |

t = 2.37  
P = .02 = 2.326



While the data provided in the above paragraphs and tables in this chapter formed the crux of my study, the mean scores of students based on demographic data including education, age, and race were also identified. All of the students were male.

Students were asked to identify their education level as being a high school graduate or as having earned their GED, or having earned some college credit hours. The overall mean was 7.86, as stated earlier.

Of the 22 students who withdrew, three chose not to disclose their prior education. Twelve reported being high school graduates, and their mean score was 10.83. Seven reported having earned a GED, and their mean scores was 8.43.

Of the 52 students who graduated, two chose not to disclose their education level. Thirty-seven students reported being high school graduates, and their mean score was 6.89. Three reported having earned their GED, and their mean score was 8.0. Ten reported having come college credit hours, and their mean score was 8.1.

Of the 13 students who remained active in the program, 19 reported being high school graduates, and their mean score was 7.11. One student reported having earned a GED, and his score was 12, and three reported having some college hours, and their mean score was 7.0.

These findings were very consistent with the earlier findings of this study. All the mean scores for students withdrawing from the program, no matter the education level, were higher than the mean scores for all levels of education of students who had graduated or were still active in the program, with the exception of the one student who reported having earned a GED, and was still active in the program.

In terms of ethnic origin, 24 students identified themselves as being Native American, 51 identified themselves as Caucasian, four as Afro-American, and one as Hispanic. The overall mean was 7.86.

The 11 Native Americans who withdrew from the program had a mean score of 9.18. The eight Caucasians who withdrew had a mean score of 10.5. In this group there were two students who identified themselves as Afro-American, and their mean score was 12. There were no students who identified themselves as Hispanic in this group, and one student chose not to answer the part of the questionnaire.

Of the 52 students who graduated, 12 identified themselves as Native American, and their mean score was 6.17. Thirty-five students in this group identified themselves as Caucasians, and their mean score was 7.43. Two identified themselves as Afro-Americans and their mean score was nine. One student identified himself as Hispanic and his mean score was nine. Two students in this group chose not to identify their ethnic origin.

Of the 13 students who had not yet graduated, but were still active in the program, one identified himself as Native American, and his score was two. The ten students who listed themselves as Caucasians had a mean score of 7.6. Two in this group chose not to identify their ethnic origin on the questionnaire.

Once again, the results were very consistent with earlier findings of this study. All ethnic groups of students who withdrew from the program showed a higher mean score on the Rotter IE (were more external) than the mean scores for students of those ethnic origins, who graduated or remained in the program.

Finally, the mean scores of students classified in age groups were identified. The students were asked to identify themselves as under 20, between 20 and 30, between 31 and 40, between 41 and 50, and no students identified themselves as over 50.

Of the 22 students who withdrew, ten identified themselves as being under 20, and their mean score was 8.3. The mean score for the eight who identified themselves as being 20 to 30 years of age, in this group, was 9.62. The mean score for the two students identifying themselves as being between 31 and 40 was 15.5, and the two students giving their age as between 41 and 50 in this group was ten.

Of the students who graduated, 29 identified themselves as being under 20, and their mean score was 7.51. In this group, 22 students identified themselves as being between 20 and 30 years of age, and their mean score was 7.05. One man identified himself as between 31 and 40, and his score was two.

Four students who remained active in the program identified themselves as being under 20, and their mean score was 8.75. Nine students who remained active in the program past the graduate date, identified themselves as being between 21 and 30, and their mean score was 6.89.

These mean scores are also quite consistent with earlier reported data. Apart from the four students under 20, who remain active, with a mean score of 8.75, all age groups who graduated or remained active in the program showed a lower mean score (were more internal) than the mean scores for age groups of students who withdrew from the program.

The results of this study indicate that there is a significant relationship between LOC expectancy and likelihood of successful vocational education program completion for the adult learner.

## CHAPTER V

### DISCUSSION

The purpose of this study was to determine if Locus of Control Expectancy acts as a predictor of successful adult vocational education program completion. The question was asked, "Is there a significant relationship between locus of control expectancy and vocational education program completion of the adult learner?"

This study indicates that locus of control does act as one predictor of an adult student's likelihood to successfully complete a vocational education program. Results suggest that those students with a more internal locus of control are more likely to complete the program than those with a more external locus of control. The findings of this study were significant to a  $p=.02$ .

#### Summary of Study

Because the over all drop out rates for vocational education programs are reported to be as high as 70 percent in the first half of a one year program (Griffith, 1991) it is important to identify predictors that indicate which students are likely to be most at risk of dropping from a program. This study was performed to see if Locus of Control expectancy acts as one such predictor.

In this study, all 88 students enrolled in the Tulsa Welding School, starting in the months of August and September, 1996 were given the Rotter IE to fill out on the first day of class. The Rotter IE is a 23 item, forced-choice, self report inventory that identifies Locus of Control expectancy, which has been well established and widely used in behavioral studies (Fleming, 1985).

At the end of the seven month course, comparisons were completed to see if there was statistically significant differences in Rotter IE scores of students who completed the program or withdrew from the program. Also, comparisons were completed to see if there was a statistically significant difference in scores of students who continued in the course past their projected graduation dates, toward a delayed graduation.

The uncorrelated t-Test was the statistical test used in this study. The mean score for the total population on the Rotter IE was 7.86, and the individual scores ranged from two to 19. Of the 88 students, one did not fill out the Rotter IE correctly, and his test results could not be used. Of the remaining 87 students, a total of 22 withdrew and their mean score was 9.59. The mean score for the 52 students who graduated from the program as originally scheduled was 7.21 and the mean score for the 13 students continuing to work toward a delayed graduation was 7.46.

Using the uncorrelated t-Test, statistical calculations showed that these results were significant to a .02 probability rate with students withdrawing from the program having significantly higher external scores on the Rotter IE than those who graduated or remained in the program toward a delayed finish. This study indicates that locus of

control does act as one predictor of an adult student's likelihood to successfully complete a technical education program.

#### Implications for Intervention

The heartening aspect of this study is that locus of control tendency is something that can be effected by life experience both in the child and the adult. As adult educators we can find ways of helping our students to identify the control that they have in their academic and work place lives. For example, we can help them to engage in positive assessment practices throughout the classroom experience. Upon program entry, using an instrument such as the Rotter IE can help in identifying students at risk for failure in the program. Helping the students become aware of their own LOC tendencies, and then using vocational guidance practices to help them engage in effective thinking and behavior related to this area, may certainly be a valuable, productive effort toward decreasing the drop out rates in the programs.

#### Implications for Further Research

This study, which clearly substantiates the hypothesis that there is a significant difference between locus of control expectancy rates for those who do and do not complete an adult vocational education program, indicates that it would be very worthwhile to continue with more investigation in this area. If similar results can be produced in studies with other types of adult education programs, then perhaps further

effort can be made toward understanding how to help people both accept and embrace their own abilities and responsibilities in meeting their educational and occupational goals in life.



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## APPENDIXES

APPENDIX A

RAW DATA SHEET ON 87 STUDENTS

## KEY

|           |   |
|-----------|---|
| Score     | Possible range, 1-23  |
| Group     | W (Withdrew)<br>G (Graduated)<br>A (Still Active)                         |
| Race      | N (Native American)<br>C (Caucasian)<br>A (Afro-American)<br>H (Hispanic) |
| Age       | 1 (under 20)<br>2 (20-30)<br>3 (31-40)<br>4 (51-50)                       |
| Education | G (GED)<br>H (High School Graduate)<br>E (Some college credit)            |
| 0         | Students chose not to give this item of information                       |

| score | graduate | race | age | education |
|-------|----------|------|-----|-----------|
| 14    | w        | c    | 2   | g         |
| 9     | g        | c    | 2   | h         |
| 10    | w        | a    | 1   | h         |
| 5     | g        | c    | 2   | h         |
| 5     | g        | c    | 2   | c         |
| 7     | g        | n    | 2   | h         |
| 7     | g        | 0    | 2   | h         |
| 7     | g        | 0    | 2   | c         |
| 7     | g        | n    | 2   | h         |
| 2     | a        | n    | 2   | h         |
| 3     | g        | n    | 2   | h         |
| 4     | g        | c    | 1   | h         |
| 7     | g        | c    | 1   | h         |
| 3     | g        | n    | 1   | c         |
| 8     | g        | c    | 1   | g         |
| 7     | g        | c    | 2   | h         |
| 9     | g        | h    | 1   | h         |
| 3     | g        | c    | 2   | h         |
| 10    | g        | n    | 1   | h         |
| 8     | g        | c    | 2   | h         |
| 7     | g        | c    | 2   | g         |
| 7     | g        | c    | 1   | c         |
| 12    | w        | n    | 2   | h         |
| 13    | g        | a    | 2   | c         |
| 15    | g        | c    | 1   | c         |
| 5     | g        | a    | 2   | h         |
| 9     | w        | n    | 1   | 0         |
| 5     | w        | c    | 1   | 0         |
| 12    | w        | c    | 3   | h         |
| 5     | g        | n    | 2   | 0         |
| 9     | w        | n    | 1   | g         |
| 7     | g        | n    | 1   | h         |
| 5     | g        | c    | 2   | h         |
| 6     | w        | n    | 2   | h         |
| 6     | g        | c    | 1   | h         |
| 9     | a        | c    | 2   | c         |
| 11    | g        | c    | 2   | h         |
| 12    | w        | c    | 4   | h         |
| 8     | w        | n    | 1   | h         |
| 8     | w        | n    | 4   | 0         |
| 6     | w        | n    | 2   | g         |
| 7     | a        | 0    | 2   | h         |
| 4     | g        | c    | 1   | h         |
| 4     | w        | c    | 1   | g         |
| 9     | a        | c    | 2   | c         |
| 7     | g        | c    | 1   | h         |
| 3     | a        | c    | 1   | h         |
| 8     | g        | c    | 1   | h         |

|    |   |   |   |   |
|----|---|---|---|---|
| 5  | w | n | 1 | h |
| 6  | w | n | 1 | h |
| 7  | g | n | 1 | h |
| 10 | g | c | 1 | c |
| 7  | g | n | 1 | c |
| 10 | g | c | 2 | 0 |
| 12 | a | 0 | 1 | g |
| 8  | g | c | 1 | h |
| 5  | g | c | 2 | h |
| 7  | g | c | 1 | h |
| 13 | w | n | 2 | h |
| 13 | w | c | 2 | g |
| 13 | w | c | 1 | h |
| 2  | w | 0 | 2 | g |
| 12 | a | c | 2 | h |
| 5  | a | c | 2 | h |
| 7  | g | c | 1 | h |
| 2  | g | c | 1 | h |
| 4  | a | c | 2 | h |
| 2  | g | c | 3 | h |
| 12 | g | c | 1 | h |
| 11 | g | c | 2 | h |
| 17 | g | c | 1 | h |
| 14 | w | a | 1 | h |
| 19 | w | n | 3 | h |
| 5  | g | n | 1 | h |
| 8  | g | c | 1 | c |
| 4  | g | n | 1 | h |
| 6  | g | c | 1 | c |
| 3  | g | c | 1 | h |
| 7  | g | c | 2 | h |
| 9  | a | c | 1 | h |
| 9  | g | n | 1 | g |
| 11 | w | c | 2 | g |
| 11 | a | c | 1 | h |
| 11 | g | c | 1 | h |
| 3  | a | c | 2 | c |
| 11 | a | c | 2 | h |
| 8  | g | c | 2 | h |

APPENDIX B

QUESTIONNAIRE



These questions are intended to find out the way certain important events that happen in our society affect different people. Each answer has two choices, (A) or (B). Please circle the one that you believe to be the answer as far as you are concerned. There is no right or wrong answer, so please circle the one you actually believe and not the one you think you should choose or would like to be true.

Please answer the questions carefully but do not spend too much time on any one answer. If you find both statements, or neither statement, to be what you believe, select the one you more strongly believe to be the case as far as you are concerned.

Try not to let your answer to previous questions influence your answer to other questions, and please answer every question.

#### I-E Scale

1. a. Children get into trouble because their parents punish them too much.  
b. The trouble with most children nowadays is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.  
b. People's misfortunes result from mistakes they make.
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.  
b. There will always be wars, no matter how hard people try to prevent them.
4. a. In the long run people get the respect they deserve in this world.  
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5. a. The idea that teachers are unfair to students is nonsense.  
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. a. Without the right breaks one cannot be an effective leader.  
b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7.
  - a. No matter how hard you try, some people just don't like you.
  - b. People who can't get others to like them don't understand how to get along with others.
  
8.
  - a. Heredity plays the major role in determining one's personality.
  - b. It is one's experience in life which determine what they're like.
  
9.
  - a. I have often found that what is going to happen will happen.
  - b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
  
10.
  - a. In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
  - b. Many times exam questions tend to be so unrelated to course work that study is really useless.
  
11.
  - a. Becoming a success is a matter of hard work; luck has little to do with it.
  - b. Getting a good job depends mainly on being in the right place at the right time.
  
12.
  - a. The average citizen can have an influence in government decisions.
  - b. This world is run by a few people in power, and there is not much the little guy can do about it.
  
13.
  - a. When I make plans, I am almost certain that I can make them work.
  - b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
  
14.
  - a. There are certain people who are just no good.
  - b. There is some good in everybody.
  
15.
  - a. In my case getting what I want has little or nothing to do with luck.
  - b. Many times we might just as well decide what to do by flipping a coin.

16.
  - a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
  - b. Getting people to do the right thing depends on ability. Luck has little or nothing to do with it.
17.
  - a. As far as the world affairs are concerned, most of us are the victims of forces we can neither understand or control.
  - b. By taking an active part in political and social affairs, the people can control world events.
18.
  - a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
  - b. There really is no such thing as luck.
19.
  - a. One should always be willing to admit mistakes.
  - b. It is usually best to cover up ones mistakes.
20.
  - a. It is hard to know whether or not a person really likes you.
  - b. How many friends you have depends upon how nice a person you are.
21.
  - a. In the long run the bad things that happen to us are balanced by the good ones.
  - b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
22.
  - a. With enough effort we can wipe out political corruption.
  - b. It is difficult for people to have much control over the things politicians do in office.
23.
  - a. Sometimes I can't understand how teachers arrive at the grades they give.
  - b. There is a direct connection between how hard I study and the grades I get.
24.
  - a. A good leader expects people to decide for themselves what they should do.
  - b. A good leader makes it clear to everybody what their jobs are.
25.
  - a. Many times I feel that I have little influence over the things that happen to me.
  - b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. a. People are lonely because they don't try to be friendly  
 b. There's not much use in trying too hard to please people; if they like you, they like you.
27. a. There is too much emphasis on athletics in high school.  
 b. Team sports are an excellent way to build character.
28. a. What happens to me is my own doing.  
 b. Sometimes I feel that I don't have enough control over the direction that my life is taking.
29. a. Most of the time I can't understand why politicians behave the way they do.  
 b. In the long run the people are responsible for bad government on a national as well as on a local level.

(Rotter, Chance and Phares 1972, pp. 272-275, 295)

Please fill in the following information about yourself.

S.S. # \_\_\_\_\_

AGE: Under 20 20 - 30 31 - 40 41 - 50 51 - 60 61 +

SEX: Male Female

ETHNIC: Native American Hispanic Afro-American Caucasian  
 Other

\_\_\_\_\_ (Please Specify)

EDUCATION: High School Grad. GED COLLEGE Please specify # of  
 credits or degree \_\_\_\_\_

THANK YOU !

APPENDIX C

INSTITUTIONAL REVIEW BOARD

APPROVAL FORM

OKLAHOMA STATE UNIVERSITY  
INSTITUTIONAL REVIEW BOARD  
HUMAN SUBJECTS REVIEW

Date: 07-10-97

IRB#: ED-98-001

**Proposal Title: PROGRAM ENTRY LOCUS OF CONTROL EXPECTANCY COMPARISONS OF  
ADULTS COMPLETING OR DROPPING ONE TECHNICAL EDUCATION PROGRAM**

**Principal Investigator(s):** Ray E. Sanders, Shelley Parson

**Reviewed and Processed as:** Exempt

**Approval Status Recommended by Reviewer(s):** Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT  
NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE  
APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR  
PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE  
SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

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**Comments, Modifications/Conditions for Approval or Disapproval are as follows:**

Signature

  
Chair of Institutional Review Board

Date: July 25, 1997

VITA<sup>2</sup>

Shelley L. Parson

Candidate for the Degree of

Master of Science

Thesis: COMPARISONS OF LOCUS OF CONTROL EXPECTANCY UPON ENTRY  
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