This is to certify that the

dissertation entitled

Factors that Influence Entrepreneurial Development in the Student Enterprise Program at Lesotho Agricultural College

presented by

John L. Graham

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Agricultural and Extension Education

Major professor

Date 4/18/96

FACT

FACTORS THAT INFLUENCE ENTREPRENEURIAL DEVELOPMENT IN THE STUDENT ENTERPRISE PROGRAM AT LESOTHO AGRICULTURAL COLLEGE

By

John L. Graham

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Agricultural and Extension Education

1996

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ABSTRACT

FACTORS THAT INFLUENCE ENTREPRENEURIAL DEVELOPMENT IN THE STUDENT ENTERPRISE PROGRAM AT LESOTHO AGRICULTURAL COLLEGE

By

John L. Graham

Lesotho Agricultural College adopted a learning system based on the principles of experiential learning. The Student Enterprise Program (SEP) improved the established Agricultural Education component so that it resembles commercial agriculture. As a result, the institution no longer is producing civil servants but is creating individuals capable of succeeding in the private sector and as entrepreneurs.

The researcher's purpose was to provide useful information to the government of Lesotho (particularly to the Ministry of Agriculture), administrators and lecturers at Lesotho Agricultural College, and donor agencies that encourage and support entrepreneurial development programs. The researcher reviewed the sociodemographic characteristics and the factors/persons that influenced the career choices of students in the Agricultural Education Program, SEP students, and SEP graduates. Also reviewed were the factors that advanced and inhibited the

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development of entrepreneurial skills of SEP students and graduates, and the entrepreneurial experience and skills of the college administrators and lecturers.

The entire populations of Agricultural Education students, SEP students, administrators, and lecturers were used. Data also were collected from 45 of 79 SEP graduates. Descriptive statistics were used to analyze the data.

It was concluded that the SEP was meeting its original goals and objectives. Agricultural Education Program students, SEP students, and SEP graduates had background experience in agriculture before attending Lesotho Agricultural College, from being raised on a farm, employed in agriculture, and having taken agricultural courses in high school. The most important factor in respondents' choice of a college major was their interest/ability in agriculture. The most influential persons in respondents' choice of college major, career choice, and decision to attend Lesotho Agricultural College were their parents/ guardians. Administrators had less entrepreneurial experience and skills than did lecturers, who also had more practical experience.

Lesotho Agricultural College could improve the SEP and the profile of students who select the program by looking at the high schools from which students who have participated in the program graduated. This would help determine whether individuals who graduate from particular high schools tend to be oriented toward business-related careers and self-employment.

ACKNOWLEDGMENTS

I have incurred many debts in the preparation of this document and am happy to acknowledge them here. I would like to express sincere appreciation to my graduate committee members. First and foremost, special thanks to Dr. Frank Bobbitt, whose guidance and advice were very helpful to me throughout my graduate program at Michigan State University. I would also like to thank Dr. Fred Whims, Dr. Eddie Moore, and Dr. George Axinn for their encouragement, advice, and continued support for me as a graduate student. Special thanks to Dr. Jake Wamhoff, Chairman of the Department of Agricultural and Extension Education, for his time, support, and valuable comments.

I am also indebted to the administrative staff, lecturers, and students at Lesotho Agricultural College. Special thanks to the principal, Dr. Steve Ralits'oele, and lecturers Remaketse Williams, Leretang Monare, and Barbara (BJ) Bauman for facilitating the dissertation research process.

I would like to extend appreciative thanks to the following individuals for their unwavering support for me through my graduate experience at Michigan State University: Dr. John Whims, Dr. Marquita Jones, Masego Makepe, Emily Mumba, Mapotso Kena, Darek Robinson, Gerald Jordan, and Andrew Pace. Also, special thanks to my mentors and role models, Loney Stewart and Dr. James Jay, for their

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immeasurable support, guidance, strength, and interest in my personal growth and development.

Finally, special thanks to my family and my fiancée, Arlene Bentley, for their love, patience, and confidence in me as a doctoral student.

LIST OF TAB

Chapter

I.

II.

TABLE OF CONTENTS

III.

IV.

LIST OF TABLES

4.29 R
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4.30 R
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4.31 R
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4.32 R
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CHAPTER I

INTRODUCTION TO THE STUDY

Introduction

The Kingdom of Lesotho, a small, land-locked country of 30,355 square kilometers (11,720 square miles), is surrounded on all sides by South Africa. About two-thirds of Lesotho is mountainous, and elevations in the eastern half of the country are generally more than 2,440 meters above sea level (Africa Today, 1991). The population in 1994 was 1.94 million (International Monetary Fund, 1995). Ninety-five percent of Lesotho's population, most of whom are Basotho, reside in rural areas. Economically, Lesotho is one of the world's least developed countries. Its resources have been listed as "people, water and scenery" (Brown, 1995, p. 517). The livelihood of the people of Lesotho depends mainly on agriculture, livestock, and the export of labor. The country has few minerals and few industries (Africa Today, 1991).

Before independence, education in Lesotho was geared toward creating an elite class of civil servants. After independence in 1966, there were only two kinds of indigenous manpower, civil servants and scientists and technicians. During the 1960s and 1970s, there was dramatic growth in African educational systems. Lesotho's leaders, like those of many other African countries during that time,

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announced their intention to reform the educational system. Educational reform was aimed at adjusting the length of educational cycles and altering the means of access to educational opportunity. Equally important, however, educational reformers considered the need to change the curriculum content and to link the provision of education and training more closely to perceived requirements for national and socioeconomic development (Wyss, 1990).

Two factors have shaped Lesotho's economy above all others. First, Lesotho is completely surrounded by the Republic of South Africa. Second, it is mountainous, and only 13% of the total land area is suitable for arable cultivation. Historical expropriation resulted in Lesotho's most fertile land being incorporated into South Africa. As a result, Lesotho is a labor reserve for the South African mining industry. For many decades the population has survived fundamentally from migrant labor remittances, which have comprised 40% to 45% of the gross national product (Africa Today, 1991). Remittances from workers in South Africa totaled about $235 million in 1988. Much of Lesotho's work force is employed from three to nine months out of the year in South Africa. At any given time, an estimated 200,000 workers are absent from Lesotho (Rajewski, 1996, p. 805).

Brown (1995) stated that, of Lesotho's economically active population, as many as one-half are employed as migrant workers in South Africa. This situation is a result of the continuing lack of opportunities in the domestic formal sector, despite government attempts to develop manufacturing and services, and severe

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pressure on agricultural land, which continues to support more than 80% of the resident labor force.

Snyder (1989) indicated that the government of Lesotho no longer has significant positions available, and with fiscal restructuring, even those jobs that were available are diminishing. Until recently, Lesotho has been able to export its labor, especially the young male farm work force. From 1990 to 1995, 20,000 new Basotho entered the labor market each year, and by 1995 more than 120,000 had done so. Snyder questioned whether a small fraction of the labor force, which will represent a doubling of those now employed in South Africa, will find jobs there; he believed they will have to find employment in Lesotho. Lesotho agricultural labor statistics indicate that there is a labor shortage in the country. It has been calculated that there is plenty of room for expansion to move Lesotho from subsistence farming to full-scale commercial agriculture and that this can be accomplished by enterprising farmers. There is strong evidence that practical agricultural training will be needed in the future in Lesotho.

The educational system in Lesotho is characterized by a high wastage rate (Thelejani, 1990). At one stage or another, graduates will need jobs. In the past, many skilled people in the technical and teaching professions were absorbed as migrant labor in the South African mines. The government has been the largest employer of skilled people. Although the parastatals and the private sector are employing some skilled people, unemployment among school leavers in Lesotho is a critical problem. Even graduates are underemployed or unemployed. One of the

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ways to address the problem of school leavers and graduates seeking employment in the Republic of South Africa is for colleges to develop programs that will provide them with the opportunity and training needed to invest in small-scale enterprises as entrepreneurs.

Lesotho's school system has failed to produce entrepreneurs who are ready to get involved in practical work, especially in intensive, small-scale agricultural projects. The potential of exploring the concept of entrepreneurship can be promising in a country that is well endowed with freshwater resources. Lesotho's economic future seems to be in the direction of developing agro-industries. This implies that education should be reformed accordingly (Thelejani, 1990).

Negative views about teaching practical skills in Lesotho can be attributed to a lack of guidance and counseling and to the fact that the opportunities to which practical education may lead are not readily visible to the public. There are few success stories regarding people gifted in practical skills. People who graduate from agricultural colleges often must limit their expectations to employment in government extension and other related positions within the Ministry of Agriculture. In the past decade, several donor agencies, the International Monetary Fund (IMF), and the United States Agency for International Development (USAID) helped the Lesotho government identify educational programs that would push the country into the "modern technological world" (Thelejani, 1990, p. 3). Subject areas and programs were chosen, and the primary focus was on curriculum development.

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Statement of the Problem

Before independence in 1966, education in Lesotho was characterized as being inadequate in scope and, from the African perspective, in quality as well. Education was geared primarily toward creating elite civil servants. The role of education was limited to producing only two kinds of indigenous manpower: administrators to run the civil service system and scientists and technicians. Technical and agricultural education "were considered to be for those who failed in academics" (Thelejani, 1990, p. 3).

Although Lesotho is primarily an agricultural country, about half of the country's labor force earn their living as migrant workers in neighboring South African gold mines. However, many Basotho miners in the Republic of South Africa have returned to Lesotho after losing their jobs. Graduates of the formal educational system were prepared for employment by the government (Bobbitt & Goertz, 1993). Until the last decade, the government was the largest employer of skilled people.

Lesotho Agricultural College, which was formally established in 1955, is the only postsecondary agricultural science training institution in the country. During the first 30 years, the primary focus of Lesotho Agricultural College was to train a work force for the Ministry of Agriculture. Graduates became Ministry of Agriculture extension agents, research technicians, and subject matter specialists (Bobbitt & Goertz, 1993).

In the mid-1980s, budgetary constraints arose, and as a result of IMF directives, many organizations stopped hiring new government employees. At the

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same time, private and parastatal agricultural production initiatives created a need for well-trained agricultural entrepreneurs. The Ministry of Agriculture directed Lesotho Agricultural College to change its training emphasis from producing students for employment in the Ministry of Agriculture to that of preparing students for self-employment in the private sector. However, the college was inadequately prepared to teach students the skills that lead to self-employment, and the types of students entering the college were not inclined to be entrepreneurs. Most Lesotho Agricultural College students' goal in pursuing postsecondary education was to train for careers as government employees, a career option that was no longer available. Most applicants to Lesotho Agricultural College were individuals with little real experience in agriculture; they had little ambition to work in production agriculture (Bobbitt & Goertz, 1993, p. 39).

With the assistance of USAID, Lesotho Agricultural College adopted a learning system based on the principles of experiential learning. The Student Enterprise Program (SEP) curriculum, which was inaugurated in 1986, improved the established theoretical agricultural education component so that it resembled commercial agriculture in Lesotho. As a result of these changes, the institution no longer is producing agricultural civil servants but is now creating individuals capable of succeeding in the private sector and as entrepreneurs. However, there has been no empirical evidence that this curriculum alternative is achieving its original goals and objectives. The main goals and objectives of the SEP are:

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1. To produce agriculture-related entrepreneurs who have been trained to engage in or develop privately based, small-scale agriculture enterprises; these include crops, livestock, and home economics activities.

2. To produce skilled and career-oriented technicians who have been trained to fill positions in agricultural education and extension subject matter.

3. To produce competent, business-oriented technicians who have been prepared to meet the need for operators and managers of various private and government production and marketing schemes.

Purpose and Objectives of the Study

The researcher's purpose in this study was to provide useful information to the government of Lesotho (particularly to the Ministry of Agriculture), administrators and lecturers at Lesotho Agricultural College, and donor agencies that encourage and support entrepreneurial development programs. The specific objectives of the study were as follows:

1. To describe the SEP at Lesotho Agricultural College and how it operates.

2. To determine the factors that influenced students' decision to participate in the SEP.

3. To examine the perceptions held by students enrolled in the SEP, SEP graduates, administrators, and lecturers regarding the program.

4. To determine the factors that have advanced and inhibited the development of entrepreneurial skills in the SEP.

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5. To determine the Lesotho Agricultural College administrators' and lecturers' entrepreneurial experience and skills.

Importance of the Study

Lesotho, like many developing countries, has been forced by growing budget deficits and foreign debt burdens to find ways to reduce the size of its public sector. The public sector can no longer be expected to provide employment for a large portion of new graduates, as was traditionally the case. In an effort to restructure and reduce the size of the public sector, the Lesotho government has turned to the private sector to generate jobs and provide many of the services previously furnished by the government. According to Brockhaus (1991), the private, small-enterprise sector is seen both as having the greatest potential for creating substantial employment at the lower levels of investment and as providing a seed for entrepreneurial talent and a testing place for new industries.

The SEP at Lesotho Agricultural College has been in existence since 1986. The program is the only one of its kind in southern Africa. The findings from this study, although they apply specifically to Lesotho, could also provide insights for agricultural colleges and universities in neighboring countries in southern Africa (and possibly in other developing countries) that are becoming interested in establishing an entrepreneurial development program.

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Research Questions

The following research questions were posed to guide the collection of data for this study.

Research Question 1. What are the sociodemographic characteristics of students in the Agricultural Education Program, the SEP, and SEP graduates, including their agricultural background and experience?

Research Question 2. What are the factors that influenced the career choices of students enrolled in the Agricultural Education Program, the SEP, and SEP graduates?

Research Question 3. What perceptions do SEP students and graduates have about the program?

Research Question 4. What are the factors that have advanced SEP students' and graduates' development of entrepreneurial skills?

Research Question 5. What are the factors that have inhibited SEP students' and graduates' development of entrepreneurial skills?

Research Question 6. What are the entrepreneurial experience and skills held by the administrators and lecturers at Lesotho Agricultural College?

Assumptions

In conducting this study, the researcher assumed that employment in Lesotho is a critical problem, particularly for postsecondary graduates of Lesotho Agricultural College. During the last decade, Lesotho Agricultural College graduates looked forward to employment opportunities in the country's Ministry of Agriculture. However, the employment opportunities enjoyed in the past are no longer available. The SEP curriculum that Lesotho Agricultural College adopted in 1986 represents the college's effort to prepare students for employment by providing them with technical training through experiential learning activities. The innovative SEP

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curriculum provides participating students with the skills and training needed to become self-employed entrepreneurs or to be employed by agricultural production parastatals in the private sector.

Limitations of the Study

This study was limited to identifying the factors that influenced the entrepreneurship development of students enrolled in the Agricultural Education Program, the SEP, and graduates of the SEP. Also, the researcher investigated the factors that advanced and inhibited the subjects' development of entrepreneurial skills, as well as the college administrators' and lecturers' entrepreneurial experience and skills. The study was aimed at examining an entrepreneurship development program in a structured academic environment and did not include established entrepreneurs who had not participated in the SEP.

Another limitation of the study was the small population size, which required that a census be used with the three target populations in the study: (a) 37 students enrolled in the Agricultural Education Program, (b) 13 students enrolled in the SEP, and (c) 148 graduates of the SEP. The use of a census limited the data analysis to descriptive statistics. Generalizations can be made only with regard to the respondents in the study.

Definition of Terms

The following terms are defined in the context in which they are used in this dissertation.

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Enterprise. A particular venture or undertaking.

Entrepreneur. A person who organizes and manages a business, assuming the risk for the sake of profit.

Formal sector. The sector characterized by large-scale manufacturing and service activities, whose products and methods of production represent high quality; this sector is geared toward creating employment, improving the distribution of income, and achieving technical efficiency.

Informal sector. The sector characterized by very small manufacturing and service activities, whose products and methods of production differ greatly from those encountered in the formal sector. The small enterprises in the informal sector frequently provide products that are substitutes for the output of the industrial sector and that, because of their inferior quality and lower cost, are more suited to the needs of the less affluent segment of the population.

Parastatal. An agency, organization, or corporation that functions independently of the government but was established and is financially supported by government programming.

Private sector. The households and business firms that make up an economy.

Quasi-government. Having a partially governmental character through possession of the right to make rules and regulations, but not within the legislative branch as constitutionally defined.

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Chapter III. The

Student Enterprise Program (SEP). A program at Lesotho Agricultural College that is aimed at providing students with hands-on agri-business experience so that they can potentially become entrepreneurs.

Student enterprise project. An agricultural-business-related project that a SEP student undertakes to develop practical entrepreneurial skills in order to make a profit.

Organization of the Dissertation

Chapter I contained an introduction to the study and background on the goals and objectives of the SEP. This was followed by a statement of the problem and the purpose and importance of the study. The objectives and research questions were set forth. Assumptions, limitations, and definitions of key terms also were presented.

Chapter II is a review of literature on the development of entrepreneurship theory. A theoretical and conceptual framework for the study is presented, and an operational definition of entrepreneurship is developed for the study. Topics that are discussed include a historical background on agricultural education and its effect on African development, entrepreneurship education and its contribution to African development, characteristics of successful entrepreneurs, rewards gained from entrepreneurship, constraints that may influence entrepreneurial activity, studies of entrepreneurship development programs in developed and less developed countries, and the SEP at Lesotho Agricultural College.

The methods and procedures used in conducting the study are explained in Chapter III. The design of the study is discussed, followed by the research

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questions. A statement on the variables is set forth next, followed by a discussion of the population and samples used in the study. Reducing sampling bias, which included frame error, selection bias, and nonresponse error, is discussed. The development of the instrument is described, and issues of validity and reliability are addressed. The data-collection and data-analysis methods used in the study are explained.

The results of the data analyses are presented in Chapter IV. Chapter V contains a summary and discussion of the findings, conclusions and recommendations for the SEP, and recommendations for future research.

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CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter is divided into 11 sections. The theoretical framework for the study, based on research on the development of entrepreneurship theory, is provided first, followed by a conceptual framework on the importance of small-scale enterprises and entrepreneurship development in Africa. An operational definition for the term "entrepreneurship" is presented next. The next section contains the historical background of agricultural education and its effect on African development. The emerging importance of entrepreneurship education and its contribution to African development is discussed, followed by an examination of noted characteristics of successful entrepreneurs. Some of the rewards associated with entrepreneurial activity are identified next, as are constraints that may influence entrepreneurial activity. Literature on developed and less developed countries' efforts to introduce the concept and importance of entrepreneurship into their curricula is discussed in the ninth section. The Student Enterprise Program (SEP) at Lesotho Agricultural College is described next, and a summary of the literature review concludes the chapter.

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Theoretical Framework for the Study

The theoretical framework for this study was obtained from research on the development of entrepreneurship theory and the social learning theory. The words "entrepreneur" and "entrepreneurship" have no well-defined, clear-cut meaning in the literature. Different writers have stressed varying aspects of entrepreneurship. The term "entrepreneur" is a French word meaning "between-taker or go-between" (Yaun, 1990). There are essentially three aspects of entrepreneurship that have been emphasized in the literature (Chong, 1986). The first is that of risk taking. In this tradition, the entrepreneur takes risks and makes decisions in the face of uncertainty in a world with imperfect information. The second aspect of entrepreneurship was introduced into the literature by Jean Baptiste Say (cited in Gasse, 1982), who emphasized the managerial characteristic and separated the profits of the entrepreneur from the profits of capital. The third characteristic is that of innovation, a concept stressed by Schumpeter (1955). An entrepreneur is, above all, an innovator who develops a new process or product, and thereby stimulates growth and development (Yuan, 1990).

According to Kiyawa (1981), early economists such as J. B. Say, Adam Smith, and Alfred Marshall discussed the notion of entrepreneurship in their own ways, but it was not until Joseph Schumpeter, a Harvard University economist, used the term that it assumed greater importance. Schumpeter (1955) associated the concept of entrepreneurship with innovation. Innovation is the essence of

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development, and the entrepreneur, being an innovator, is the source and prime mover of economic development.

According to Schumpeter (1955), the entrepreneur is the "prime mover" or *"persona causa"* behind the process. The entrepreneur's function is "to innovate and carry out new combinations," including introducing new goods and methods of production as well as "creating and destroying markets" (Casson, 1982, p. 373). In order for the Schumpeterian entrepreneur to carry out his or her functions, the entrepreneur must command the means of production. To this end, the entrepreneur needs capital with which to buy the necessary inputs. As far as Schumpeter was concerned, commercial banks could create the necessary credit and provide it to the entrepreneur through the capital market.

Knight (1921) pointed out that the entrepreneur is the main decision maker of the economy. He believed that the entrepreneur should decide what to produce, what factors of production including labor are needed, and in what quantity each factor is required. Thus, the amount or level of employment in the country depends on the entrepreneur's decisions. Whereas Schumpeter held that the person who supplies the capital is at risk, and not the entrepreneur, who simply borrows capital, Knight maintained that the entrepreneur assumes all of the risk because he or she is the main decision maker.

Dobb (1926) asserted that an entrepreneur is not only an innovator and risk bearer, he or she is also a monopolist by virtue of his or her possession of greater information, good training, and education. These attributes noted by Dobb enable

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the entrepreneur to endure a greater risk, thereby augmenting entrepreneurial activity and making greater use of productive resources (Kiyawa, 1981).

Leibenstein (1978), like Schumpeter, believed that the entrepreneur brings about economic development by making more efficient use of society's resources, thereby enhancing the national economy. Imperfections in the economy result in wastage of productive resources and lower national income than would otherwise exist if the resources had been used more efficiently. Entrepreneurial functions make up for these deficiencies.

Leibenstein (1978) asserted that the real world economy contains various degrees of imperfections, and the greater the imperfections, the greater the degree of inefficiency existing in the economy. Leibenstein indicated that an imperfect economy, especially in less developed countries, is one in which there are holes and tears in the net, and where the modes and pathways are poorly defined and poorly marked. It is the entrepreneur who attempts to fill in the holes and tears by marshalling the necessary inputs, which otherwise might not be available or be used in unproductive or less productive activities. Leibenstein further pointed out that the actual employment of entrepreneurial skills is itself dependent on the supply of economic opportunities, the supply of entrepreneurial skills, and the supply of entrepreneurship itself. The last depends on alternative opportunities available to potential entrepreneurs, as well as the value the society places on entrepreneurship as an activity.

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Another important writer on the subject of entrepreneurship is David McClelland. McClelland (1961) linked Protestantism, the need for achievement, and economic development. He hypothesized that Protestantism (self-reliance values and the work ethic) led to independence and mastery training by parents, to high achievement, and ultimately to the spirit of capitalism and economic development.

The modern conceptualization of the achievement motive is largely a result of Murray's (1938) writings. Murray defined this motive as

> the desire or tendency to do things rapidly and as well as possible. [It also includes the desire] to accomplish something difficult, to master, manipulate and organize physical objects, human beings or ideas. To overcome obstacles and attain a high standard. To excel one's self. To rival and surpass others. To increase self-regard by the successful exercise of talent. (p. 164)

McClelland was strongly influenced by Murray in the development of his need-for-achievement theory (Fineman, 1977). However, as McClelland came to focus on the problems of entrepreneurial behavior and economic growth, his theory took on characteristics of its own (Johnson, 1990). In his later writings, McClelland (1962) listed three main behavioral traits: "takes responsibility for finding solutions to problems, sets moderate achievement goals and takes calculated risks, [and] wants concrete feedback regarding performance" (p. 102).

McClelland (1961, 1965a) reported a series of studies demonstrating that high achievement and the subsequent manifestation of the preceding behavioral traits correlated strongly with "entrepreneurial" success. His belief that achievement motivation could be increased led to the development of training programs designed to increase achievement motivation in prospective and practicing business

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managers with the intention of enhancing the probability of business success and economic development (McClelland, 1965b; McClelland & Winter, 1969; Miron & McClelland, 1979). It was concluded that the need for achievement is the key to the success of small-business owners/managers (entrepreneurs) (McClelland & Burnham, 1976).

Churchill (1989) asserted that McClelland amassed an impressive amount of empirical evidence to support his claim. As a result of studying entrepreneurship longitudinally and in different countries, McClelland implied that his model was universal. However, Churchill pointed out that McClelland's work has generated numerous criticisms. For example, it was once thought that entrepreneurship had a well-established theory in McClelland's notion that entrepreneurs were different psychologically from nonentrepreneurs. However, closer scrutiny of McClelland's work (Kilby, 1971; Schatz, 1971) and subsequent empirical studies (Brockhaus, 1982) disclosed serious flaws in his theory. Johnson (1990) indicated that McClelland's work has influenced a host of researchers of entrepreneurship who have studied the achievement motive as a distinguishing psychological characteristic of entrepreneurs. Brockhaus and Horwitz (1986) indicated that, McClelland's conclusions notwithstanding, no definitive link between achievement motivation and entrepreneurial success has been established.

For more than 20 years, a recurring theme in entrepreneurship and small-business research has been the differentiation of individuals who have chosen to start their own businesses from those who have selected other career paths and

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goals. The majority of investigators have focused on identifying psychological characteristics or personality traits, such as locus-of-control orientation (Borland, 1975; Brockhaus & Nord, 1979) or achievement motivation (Bowen & Hisrich, 1986; DeCarla & Lyons, 1979; Sexton & Bowman, 1983), as important factors in establishing a profile of an entrepreneur, small businessperson, or self-employed individual. A critical assumption in this stream of research is that the entrepreneur is somehow different in terms of personality traits and that this inter-individual difference can be used to predict the selection of an entrepreneurial career.

Recent reviews of the literature dealing with the psychological characteristics of the entrepreneur have been critical of this trait-oriented approach and its failure to address why some people are more likely than others to pursue and maintain an entrepreneurial career (Brockhaus & Horwitz, 1986; Casrud & Johnson, 1988; Gatner, 1988; Scherer, Adams, & Weibe, 1988; Sexton, 1987; Wortman, 1987). Casrud and Johnson contended that the field has not kept pace with the theoretical developments in other, related disciplines (e.g., social psychology), which have much to contribute in the way of an empirically grounded conceptual framework. They argued that the study of entrepreneurship has reached a stage of development that demands that contingency factors be considered in explanations of entrepreneurial behavior.

Recent authors have suggested that the focal point of entrepreneurship research should be the entrepreneurial process or event as it takes place within a multidimensional social context, not a psychological profile of the entrepreneur

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(Gatner, 1985, 1988; Sanberg & Hofer, 1987). According to Scherer, Adams, Carley, and Wiebe (1989), critics of the trait approach to the study of entrepreneurship have called for the adaptation of theory from other disciplines to explain entrepreneurial behavior. Scherer et al. conducted several studies that focused on the first step in the process by which entrepreneurial career preference is developed. In those studies, the social learning theory was used to investigate the link between a parent role model and preference for an entrepreneurial career. The social learning theory proposes that one way learning can occur is vicariously, by observing the behaviors of others, referred to as models (Bandura, 1977). The individual observes the model engaging in various social behaviors and notes the reinforcements received by the model. If the observer values the reinforcements or recognizes the positive outcomes of such behavior, he or she will attempt to replicate the model's behavior and obtain similar types of reinforcements. Provided the model exhibits socially effective behavior (i.e., performs in a way that is reinforced), the observer will develop a "generalized habit of matching the response of the successful model" (Bandura & Walters, 1963, pp. 4-5).

In their research, Scherer et al. (1989) found that the parent entrepreneur role model influenced subjects' preferences associated with increased education and training aspirations, task self-efficacy, and expectancy for an entrepreneurial career. Bird and Jelinek (1988) stressed that most entrepreneurship research has focused on two domains--(a) the entrepreneur and (b) his or her strategy for venturing--and that early research on entrepreneurship focused on personality and motivation

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(Collins & Moore, 1964; McClelland, 1961) or life experiences (Hoad & Rosko, 1964; Vesper, 1980). Bird and Jelinek indicated that, although the latter approach makes intuitive sense, it has provided little predictive power and limited insight into the functioning of entrepreneurs.

Most recent research has included the social context of entrepreneurship (Shapero & Sokol, 1982). Other directions of recent research include the process (behaviors and relationships) and organization created by the entrepreneur and the relationships between the variables and the entrepreneur and his or her context (Gartner, 1985). Furthermore, entrepreneurs of different types have been studied (Duffy & Stevenson, 1984; Dunkleberg & Cooper, 1982; Smith & Miner, 1983) and suggestions made that entrepreneurs of different types and in different contexts may rely on different processes, competencies, and relationships. The outcomes of the entrepreneurial process may differ based on these variables--success to one entrepreneur may be stagnation to another.

One of the themes emerging from the various directions in entrepreneurship research is the need for a behavioral, process-oriented model of entrepreneurship (Bird & Jelinek, 1988). Bird and Jelinek believed that entrepreneurship refers to the intentional creation or transformation of an organization for the purpose of creating or adding value through the organization of resources. They claimed that no entrepreneurs begin or buy an existing business by accident or because someone tells them to; they choose the career alternative, the product, and the service.

Shapero and Sokol (1982) and Casrud and Johnson (1988) considered two broad categories of determinants in examining how entrepreneurial intentions are manifested in new or transformed organizations: (a) individuals with certain characteristics, abilities, and perceptions who find themselves in (b) a context that is conducive to venturing. Entrepreneurs distinguish themselves from others by intentionally linking and organizing their own and others' resources to build a firm, which adds value. In addition, successful entrepreneurs are distinguished from less successful ones by the interaction of these broad determinants and the intentional processes that go into venture formation.

Jelinek and Bird (1988) stated that intentionality is a state of mind, directing attention, experience, and action toward a specific object (goal) or pathway to its achievement (means). Entrepreneurs with the intention to venture have precursor attitudes and awareness of social norms regarding entrepreneurship, and these form the content of their intention (e.g., this business, this industry, this method of financing). Researchers have found that entrepreneurs have a stronger sense of personal control (attributing outcomes to their action) and stronger tendencies to disregard many constricting social norms than do people in general (Begley & Boyd, 1986; Borland, 1975; Jennings & Zeithaml, 1983; Sexton & Bowman, 1984).

Recent researchers on the subject of entrepreneurship have come to the conclusion that self-employed workers should be more satisfied than their wage or salaried counterparts. Eden (1975) reported that the quality of working conditions was a significant factor in determining worker satisfaction. Dissertation research by

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Fine (1970) indicated that there are only systematic differences between the self-employed and their wage and salaried counterparts. On the surface, self-employed people reported higher job satisfaction, but Eden pointed out that this perception may have been influenced by the autonomous work performed by the self-employed. When the jobs of wage or salaried workers were statistically adjusted to be equal in autonomy and control of working conditions to those of the self-employed, their level of job satisfaction improved. This could suggest that wage or salaried workers in participatively structured jobs might be even more satisfied than the self-employed (Katz, 1993).

According to Nwachukwu (1990), many studies have been conducted on the factors that distinguish entrepreneurs from salaried workers. The most commonly cited traits were perception, boldness, persistence, persuasion, and ethics. A profile of the characteristics and traits of entrepreneurs is presented in Table 2.1.

No single individual possesses all of the traits and characteristics shown in Table 2.1. As with all traits, it is difficult to make a distinction between those that an entrepreneur needs to become one, those one develops when he or she is an entrepreneur, and those an individual really needs to maintain himself or herself in the position. Liles (1974) indicated that the "degree" of experience, and situational conditions, rather than personality or ego, are the major determinants of whether or not an individual becomes an entrepreneur.

Table 2.1: Characteristics and traits of entrepreneurs.

Characteristics	Traits
Self-confidence, optimism	Confidence, independence, individuality
Task-result	Need for achievement, profit orientation, persistence, perseverance, determination, hard work, drive, energy, initiative
Risk taking	Risk-taking ability, liking for challenges
Leadership	Leadership behavior, ability to get along well with others, responsiveness to suggestions and criticisms
Originality	Innovativeness, creativity, flexibility, single-mindedness, resourcefulness, versatility, knowledge
Future orientation	Foresight, perceptiveness

Source: Meredith, G., Nelson, R., & Neck, P. (1983). The Practice of Entrepreneurship. Geneva: International Labour Office, p. 3.

Conceptual Framework

What is an entrepreneur? Researchers of entrepreneurship theory have offered several different definitions of the term. Early definitions of an entrepreneur centered on the role that an entrepreneur assumes during the course of venturing and the effect that role has on the national economy. Schumpeter (1955) indicated that the entrepreneur is an innovator and prime mover of economic development, whereas Knight (1921) viewed the entrepreneur as a bearer or risk and the main decision maker of an economy. Dobb (1926) viewed the entrepreneur as an innovator, risk bearer, and monopolist. He believed that an entrepreneur has greater access to useful information, good training, and education than do other people,

which enables him or her to assume greater risk. Leibenstein (1978) stated that the entrepreneur makes efficient use of society's resources, which ultimately contributes to the national economy. Shultz (19) linked the concepts of human capital and entrepreneurship. He viewed entrepreneurship activity as involving the ability to deal with disequilibria. According to Shultz, the entrepreneur plays a passive role, in that existing or changing market forces call forth his or her ability to deal with disequilibria. In contrast, an activist view, like Schumpeter's, sees the entrepreneur as going out and injecting new factors into or somehow causing the market (external) conditions to change (Kirzner, 1985). Shultz considered education a key variable in people's ability to perceive and react to disequilibria.

After establishing an economic profile of the entrepreneur, McClelland (1961) introduced and included the psychological aspect when defining the entrepreneur. McClelland (1961, 1962, 1965a, 1965b, 1979) linked the need for achievement, a work ethic, and self-reliance values to economic development. His work generated numerous research studies focused on corroborating or disproving his psychological assessment of an entrepreneur. Recent studies of the entrepreneur have focused on establishing consistency in the measurement of achievement motivation. According to Johnson (1990), several studies have shown considerable variability in the "entrepreneurial samples studied, different operationalizations of achievement motivation, and a lack of consistency in the measurement of the achievement motivation" (p. 39). Most achievement motivation researchers have concluded that a positive relationship existed between achievement and motivation. Johnson

contended that it would be more reasonable to draw the tentative conclusion that a positive relationship existed between the motive under study and entrepreneurship. Therefore, Johnson claimed, it is not possible to state that the case has been proven.

According to Fineman (1977), evidence has shown that different measures of achievement motivation cannot be assumed to be measuring the same construct. And it is simply not possible to generalize across studies using different measurement instruments. There has been a tendency for researchers to assume that achievement motivation is a generic concept. This mistaken assumption leads to the conclusion that any instrument purported to measure achievement motivation is acceptable, regardless of differences in operationalization and measurement approaches (Johnson, 1990).

Johnson (1990) asserted that the purpose of much of the earlier research has been to differentiate entrepreneurs (however vaguely defined) from other nonentrepreneurial groups on the basis of psychological predisposition or motivational inclination. This line of inquiry assumes that all entrepreneurs and their ventures are basically the same (Gatner, 1985). In reality, there is much variability among entrepreneurs and their ventures. Johnson contended that few researchers have explicitly addressed the question of how psychological predisposition, individual behaviors, and firm-level outcomes are related. Entrepreneurship is a multidimensional process that demands the use of multidimensional research models if a true understanding of the process is to be obtained.

Carland, Hoy, and Carland (1988) argued that entrepreneurial-trait-based research is necessary to fully understand the concept of entrepreneurship. Therefore, it is worthwhile to carefully study the role of the individual, including his or her psychological profile. Individuals are, after all, the energizers of the entrepreneurial process.

The entrepreneurial process can be explained through the social learning theory, which suggests that one of the ways to learn is by observing the behaviors of others. Such observational learning can serve either to encourage or discourage a person from entering a career field similar to the one observed (Betz & Hackett, 1981; Krumboltz, Mitchell, & Jones, 1976). Through observing (and recognizing outcomes), aspiring entrepreneurs can develop the requisite psychological profile and begin forming career preferences.

Aspirations have been defined as the goals that an individual desires to attain in terms of entering a particular career (Rosenberg, 1957). Much of the research on occupational aspirations in general (Marini, 1978) and entrepreneurial aspirations in particular (e.g., Bailey, 1986; Ronstadt, 1983, 1984) has focused on the degree of training and education pursued by an individual in relation to preparing for one career over another (Marini, 1978). According to the social learning theory, education and training aspirations will be higher if an individual has observed a role model who is successfully performing in a given career. In this case, success is defined as pursuit of a route that, in the eyes of the learner, has led to personal satisfaction for the model (Scherer et al., 1989).

Johnson (1989) indicated that occupational expectations are important to an entrepreneur when the individual is making a career choice. Occupational expectations have been defined as the person's perception of opportunities in the environment related to career entry (Farmer, 1985). According to Krumboltz et al. (1976), perceptions of opportunities will be more positive if observational learning from a high-performing role model has occurred.

One of the main goals of studying entrepreneurship is to explain those factors that motivate an individual to select an entrepreneurial career (Scherer et al., 1989). Adapting the principles of social learning theory to career selection, Krumboltz et al. (1976) and Mitchell and Krumboltz (1984) proposed that role models are an important environmental factor in forming career preferences and making a career path salient to the observer. Scherer et al. (1989) contended that the basic premise is that an individual is likely to express a preference for a particular occupation or career if he or she has observed a model successfully perform activities associated with that career or occupation. The social learning theory, then, appears to be a viable conceptual framework for building theory regarding the selection of an entrepreneurial career.

Operational Definition of an Entrepreneur

The term "entrepreneur" is not easy to define. Different scholars have given it various meanings or have emphasized particular aspects of the phenomenon (Kiyawa, 1981). In general, entrepreneurs have been defined as people who have the ability to see and evaluate business opportunities, gather the necessary

resources to take advantage of them, and initiate appropriate action to ensure success (Meredith et al., 1983).

Johnson (1990) asserted that reaching consensus as to the definition of the term "entrepreneur" is not likely to happen, nor is this even desirable. However, at the least, it is incumbent on researchers to describe clearly the population being investigated in a given study. Scholars of entrepreneurship theory development, such as Knight (1921), Dobb (1926), Schumpeter (1955), Leibenstein (1978), and Kilby (1971), have viewed the entrepreneur in the context of large-scale, technologically advanced economic activities; this approach can be misleading. For example, Lesotho's economy is characterized by its large dependence on South Africa. Its economic base consists of the provision of contract labor for the industrial and mining centers in South Africa (Fues et al., 1982).

Fues et al. (1982) conducted field studies on small-scale enterprise development in Lesotho. The aims of their research were to examine small-scale industries in Lesotho and to determine the internal problems of and external constraints on entrepreneurs. According to Fues et al., the industrial sector in Lesotho is at a rudimentary stage of development. The large-scale enterprises, most of which are owned by foreign capital, draw on unskilled and low-wage local labor. The expanding small-scale sector, comprising craft and factory-type enterprises, is characterized by its subordinate and entirely dependent relationship with South Africa.

Fues et al. further discovered that all markets in Lesotho were fully integrated into a regional system, and local products had to compete against a full range of South African imports. Accordingly, the only footholds they had been able to gain were on residual markets, in which local demand could not be met by South African products. These markets consisted of segments of low-price, low-quality consumer goods and products with high transportation costs per unit value and distinctive local attributes. In only a few isolated instances had artisans and small-scale industries begun to penetrate South African markets in direct competition with South African suppliers. Small-scale enterprises were almost totally dependent on South African imports for raw materials and intermediate products. The raw material sources in Lesotho, especially those outside the capital city of Maseru, tended to be highly deficient, with the result that procurement was a serious problem (Fues et al., 1982).

Fues et al. (1982) found that most entrepreneurs acquired their skills from on-the-job training in South Africa or Lesotho. Many employees were generally unskilled before entry, but all small-scale enterprises offered opportunities for informal skill formation. Low wages led to a high labor turnover rate, which discouraged entrepreneurs from investing in the training of their employees (Fues et al., 1982).

The typical entrepreneur in Lesotho can therefore be generally characterized as an individual with limited means of production at his or her disposal. Land is becoming an increasingly scarce resource, and labor usually is provided by the entrepreneur himself or herself.

The prospects of an entrepreneur's obtaining external capital through the banking system are extremely limited. Financing is provided primarily by the entrepreneurs themselves in the form of their own savings, accumulated in South Africa or Lesotho. Insufficient working and investment capital jeopardizes profitability and prevents desired expansion (Fues et al., 1982).

The production process in Lesotho generally is characterized by a low level of mechanization. The poor overall condition of buildings and sites gives rise to numerous complaints by entrepreneurs. Inadequate management skills often lock enterprises into a low-efficiency, low-profit equilibrium. Bookkeeping usually is neglected or of poor quality. Deficient and incomplete costing distorts the calculation of profits. Almost all small-scale enterprises have to rely on direct sales to individuals for a substantial part of their turnover (Fues et al., 1982).

One can conclude, therefore, that how the term "entrepreneur" is defined in economically advanced countries is unsuitable for direct application in Lesotho. Therefore, for the purpose of this study, the researcher formulated a more specific operational definition, based on the consensus of experts of entrepreneurship development in the African context.

Luke (1995) suggested that efforts in the early 1980s to liberalize African economies, restructure the public sector, and facilitate environments in which market forces could influence allocative efficiency were a new development-management paradigm. He pointed out that the emerging consensus suggests that development is no longer solely a public-sector responsibility. It should be acknowledged at the

outset that, in the African context, the ubiquitous informal sector is a fact of entrepreneurial life. Entrepreneurship remains the main vehicle of facilitating the "graduation" of informal-sector ventures with realistic business prospects to better-established and better-endowed enterprises. It is also the principal means of promoting economic diversification, export-to-niche markets, future growth, and higher living standards (Luke, 1995). Schumpeter's classical characterization emphasized that entrepreneurship means creativity and innovation (including, but not limited to, technological invention and adaption), as well as competent management in a business setting to meet specific business objectives (Luke, 1995). Gerschenkron (1962) applied Schumpeter's characterization to a development context, suggesting that entrepreneurship also means the application of these attributes and practices to meet a nation's set objectives concerning economic development.

Entrepreneurial characteristics can be relevant at various levels of private-sector operations and public-sector responsibilities. Therefore, for purposes of this study, an entrepreneur was defined as a person who is able to perceive opportunities and is creative, innovative, and capable of marshaling the necessary resources to bring the perceived opportunities to fruition (Luke, 1995).

Agricultural Education and Its Effect on African Development

Education is widely accepted as a major instrument for promoting socioeconomic development, yet in most developing countries, educational

institutions are not contributing all they can to development (Psacharopoulos, Tan, & Jimenez, 1986). Haddid, Carnoy, and Regel (1990) asserted that development in all its forms–economic, social, and cultural--will depend increasingly on knowledge-intense industries, agriculture, and services. Education is a key to developing that knowledge and the sense of personal efficacy needed to adjust to rapid change. The authors continued to say that many countries are falling further behind in providing the education and training needed by their youths to create and adapt available knowledge to their environment.

The African educational system has been faced with many challenges. The time has come when the emphasis on education (teaching and learning), particularly at the primary and secondary levels, not only reflects the cultural and socioeconomic environment, but also the fact that the teaching and learning must be relevant to the specific conditions of a particular country and can ultimately lead to direct employment or self-employment. Boud, Cohen, and Walker (1993) asserted that it is meaningless to talk about learning in isolation from experience. Experience cannot be by-passed; it is the central consideration of all learning. Learning builds on and flows from experience, no matter what the external prompts to learning might be. Hence, learning is beneficial primarily when it is practical and applicable. The type of learning considered in this study is experiential. According to Weil and McGill (1998), experiential learning refers to a spectrum of meanings, practices, and ideologies that emerge out of the work and commitments of policy makers, educators, trainers, change agents, and ordinary people all over the world. These

people see experiential learning, however they define it, as relevant to the challenges they currently face: in their personal lives, in education, in institutions, in commerce and industry, in communities, and in society as a whole.

Agricultural education has been a long-standing part of the curriculum in many African countries. However, given the growing challenge for many governments to provide employment opportunities to graduates, experiential learning can be a useful component of agricultural education. Agricultural education has been given varying meanings by different people around the world (Meaders, 1987). In the United States context, agriculture is a highly applied, practical subject. The teaching of agriculture involves a great deal of active involvement in the field, and the preferred teaching methods are those that involve students in field work and problem solving (McBreen, 1985).

The idea of engaging students in practical learning is not a new phenomenon or construct. In the early 1920s, John Dewey was a harsh critic of the processes of American education (Hopkins, 1994). Dewey believed that an educational system that is not practiced is even less effective than one in which students are required to memorize information and cannot relate classroom instruction to real-life situations. Hopkins asserted that, for many students, particularly those attending secondary schools, attending school is an unauthentic experience to be endured until real life begins. In a passage from Human Nature and Conduct, Dewey (1922) stated,

> The inert, stupid quality of current customs perverts learning into . . . conformity, constrictions, surrender and skepticism and experiment. When

> we think of the docility of the young, we must first think of the stocks of information adults wish to impose and the ways of acting they want to produce. Then we think of the insolent coercions, the insinuating briberies, the pedagogic solemnities by which the freshness of youth can be faded and its vivid curiosities dulled. Education becomes the art of taking advantage of the helplessness of the young. (p. 64)

In their publication A Model for Agricultural Education in Public Schools and the Role of Supervised Agricultural Experience, Barrick and Hughes (1991) reported that, in the United States, changes in student demographics have dictated that the approach to agricultural education must change in order to ensure that all students receive meaningful instruction. Experiential learning through supervised experience has been the hallmark of agricultural education programs. The Grant Foundation (1988) recommended that experiential learning, i.e., learning through hands-on participation, by training, making errors, and gradually narrowing the margin between failure and success, should be the heart of any educational perspective.

Steward and Boyd (1989) asserted that many entrepreneurs are starting businesses as a means of achieving success, but they face many challenges in attaining their goals. Secondary and postsecondary educational institutions are beginning to recognize the importance of providing the type of training that will help students overcome the obstacles that often prevent them from becoming entrepreneurs. Along these lines, the U.S. Department of Education defined an entrepreneur as a person who "undertakes initiatives and assumes personal risks in creating and operating a profit-oriented business" (Steward & Boyd, 1989, p. 26).

The entrepreneur has long been an important contributor to the growth of American business, as well as a driving force in the nation's economic development.

To capitalize on their own background and experiences, individuals often start businesses in the fields they already know. Researchers have found that more than 50% of all entrepreneurs start businesses in which they have had some experience (Steward & Boyd, 1989). There is strong evidence that a formal education with special emphasis on entrepreneurship significantly helps one prepare for starting a business. The education and experience of the aspiring entrepreneur are directly related to the individual's later success. It has been shown that people who have more education as well as relevant experience in a particular industry are more successful than those who have less education and experience (Steward & Boyd, 1989).

Paprek (1962) stated that universities and other institutions of higher learning could be used for entrepreneurial development. In the United States, universities and colleges operate Small Business Institute Programs in local communities, in cooperation with the U.S. Small Business Administration. These programs are aimed at providing assistance to small-business operators in the communities where they are located. The students work with entrepreneurs. Some of the benefits to be derived from the scheme are that:

1. The students learn about small business.

2. The business obtains an analysis of its problems and substantive help on how to solve them.

3. The university or college radiates its influence to the community and carriers out research projects there.

4. It serves as a focal point for the development of the small-business community as a whole with the needs of the society. This involves assistance to ongoing businesses as well as identification of new ventures, training and development of practicing and potential small-business operators, and the integration of small-business teaching at the high school, college, and/or continuing education levels (Paprek, 1962, p. 46).

In Economic Development in the Third World, Todaro (1991) stated that most economists would probably agree that it is the human resources of a nation, not its capital or its material resources, that ultimately determine the character and pace of its economic and social development. Peterson (1991) quoted the late Professor Harbison of Princeton University as saying,

> Human resources . . . constitute the ultimate basis for wealth of nations. Capital and natural resources are passive factors of production; human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations, and carry forward national development. Clearly a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else. (p. 9)

In the article "Can Agricultural Education Be the Key to African Development?" McBreen (1985) indicated that the erudite outputs of the academic elite rarely have relevance to the struggles of rural families in Africa. In fact, the distance from academic journals to agricultural inputs for African farmers is often so great that individuals directly involved in attaining the latter have little or no use for the former. McBreen asserted that bureaucratic elites in the United States Agency for International Development (USAID), the World Bank, the British Council, and

other bilateral and multilateral donor agencies at times lack understanding, trust, and common knowledge, and this stagnates agricultural development projects.

Agricultural education for Africa and any predominantly rural agrarian culture is neither a new idea, nor is it an idea without support. In 1984, USAID held an agricultural education workshop in Younde, Cameroon. The workshop focused on several components of improving agricultural education in Africa; however, major emphasis was placed on curriculum development, technical training at the secondary and postsecondary levels, and agricultural education. Support for the program came from African and American educators, bureaucrats, practitioners, and politicians. Politically, in Africa, agricultural education appears to be an idea whose time has come. The Vice-Minister of Agriculture of Cameroon, Solomon Nfor Gwei, expressed his perception of the need:

> The food question . . . is the number one problem facing Africa today. It is a problem which we must solve urgently in order to save the lives of millions of our sons and daughters. Hunger, malnutrition and consequent diseases stare us straight in the face. Food! Food! Food! is the outcry in many corners of the continent. Food importation and gifts of food by benevolent organizations are only temporary relief measures. Food self-sufficiency is the answer. The means to this end is agricultural development, and there can be no real and effective agricultural development . . . except through agricultural education. (USAID, 1984, p. 2).

McBreen (1985) reported that there is a discrepancy in the definition and philosophy of agricultural education between developed and less developed countries, which may have contributed to conflict about and misinterpretation of the term. McBreen asserted that agricultural education should be directly related to and representative of the realities of the exact location (country, state, village) in which

students will work. Unfortunately, barriers to the implementation of this philosophy exist throughout Africa.

In Zimbabwe, the Zimbabwe Foundation for Education with Production (ZIMFEP, 1984) has set up pilot schools "that would overcome the divisions between theory and practice, mental and manual labor, academic and practical subjects. This new approach . . . links schooling to real life situations and the needs of the society" (p. 6).

Researchers have found that entrepreneurs are made, not born. Given the right exposure, correct environment, and necessary incentives, opportunities, education, and orientation, entrepreneurs will emerge. The role of management education in helping to produce entrepreneurs cannot be overstated. It appears to be the only discipline that holds promise in terms of entrepreneurial development (Nwachukwu, 1990).

Entrepreneurship Education and Its Contribution to African Development

The United States and Europe are not the only places in the world where entrepreneurship education is recognized as playing a major role in economic development (Brockhaus, 1991). Recent concern about the growing problems of unemployment and employment creation in less developed countries has generated interest in the importance of small-scale enterprises. High and rising rates of urban and rural unemployment pose major hardships for many developing countries, despite substantial growth in the modern formal sector. The industrial sectors of

many developing countries--particularly Africa--are largely dependent on public policies and the availability of government funding (Page, 1979). In many instances, the industrial formal sector's economic activities have failed to provide gainful employment to increasing numbers of skilled and qualified postsecondary graduates. Under these circumstances, skilled graduates are desperately seeking employment opportunities in their own countries; however, a large majority of them pursue employment in neighboring countries as an alternative. Many of these jobs, such as mining and construction, often are labor intensive and do not require formal education.

Within the economies of many less developed countries, another sector has emerged, sometimes with and often without the encouragement of public authorities. This sector is characterized as informal or intermediate on the basis of its small-scale manufacturing and service activities, whose methods of production differ greatly from those encountered in the modern sector. Also, linkages between agriculture and small industry have occupied an important place in the urban and rural development of several countries. In Africa, these linkages appear to be limited largely to the processing of several crops and to the manufacturing of implements for traditional agricultural production. Small-scale enterprises are widely believed to be more suited to the needs of the less-affluent segments of the population because they are more geographically dispersed and more accessible in both urban and rural areas. Promotion of small-scale enterprises, then, is an important aspect of an employment-oriented strategy of economic development (Page, 1979).

On the other hand, it is generally believed that small-scale-enterprise entrepreneurs and their staffs are not technically trained in management, and the quality of their products reflects inefficiency. Some analysts have contended that the output of the informal or intermediate sector is confined to the production and distribution of inferior goods (Hymer & Resnick, 1969). With increasing interest in and more knowledge about indigenous entrepreneurs, many African governments are beginning to view them as employment creators who can ultimately contribute to the horizontal distribution of income and help improve national economic development.

Nwachukwu (1990) pointed out that, for a long time, many African nations have been paying close attention to the problems of indigenous entrepreneurs, but they have been failing to encourage the entrepreneurs to overcome their problems. These nations have, however, come to realize that a solid industrial superstructure can be built only on the sure foundation of indigenous managerial talent. Nwachukwu maintained that, for African nations to accomplish this goal, there must be an ample supply of resources; there must be enough educated graduates from both the secondary and university levels.

Characteristics of Successful Entrepreneurs

Nwachukwu (1990) indicated that the factors that make for a successful entrepreneur have been researched extensively in the more developed countries because of their belief that most economic systems need successful businesspeople. Nwachukwu described some typical characteristics of

entrepreneurs, stating that many see them as self-starters and high achievers. Some are people who enjoyed a higher-than-average level of success in their previous employment but were driven by the desire to exploit and innovate, to launch a new venture purely for self-expression. Others, however, are dreamers and ambitious risk-takers who have no special skills or products to offer, but are just motivated by plain ambition to be in the business. Nwachukwu concluded that entrepreneurs are self-selected people who wish to be their own bosses and must have nursed this hope most of their lives. Some have been successful in the pursuit of conventional careers, whereas others have never had any meaningful paid employment. Researchers have found that all entrepreneurs tend to be people with a tremendous amount of determination and commitment. They have a high achievement motive--they love to make things happen.

McClelland (1961) observed that entrepreneurs are more likely to do well if they are (a) reasonable risk takers, (b) self-confident, (c) hard workers, (d) goal setters, (e) accountable, and (f) innovative. These qualities are discussed in the following paragraphs.

Risk Taking

Researchers have pointed out that all successful entrepreneurs are reasonable risk takers (Brockhaus, 1980; Knight, 1921). Entrepreneurs are not gamblers, however. They recognize the fact that they can succeed or fail, and most of their decisions have to be well thought out.

Self-Confidence

Characteristically, entrepreneurs are very self-confident. They believe that they are the architects of their own fortunes. This could account for their special liking for independence. They are the rebels or deviates of the business world. Their self-confidence motivates them to go on their own and secure paths. Entrepreneurs' self-confidence is the driving force that makes them individuals.

Hard Work

Entrepreneurs are self-selected individuals who have a special liking for hard work. Characteristically, they work at odd hours and quit for the day only when their work is done. A typical entrepreneur makes no distinction between work hours and private time. The entrepreneur appears to be a compulsive worker, and even when the work is done and the day spent, the entrepreneur is still mentally attached to the job. Entrepreneurs like to prove themselves, to achieve, and to challenge themselves; these qualities account for their desire to work hard.

Goal Setting

Entrepreneurs set goals for themselves. They have a mission, a target, and a desire to reach the mark. In their quest to achieve the stated goals, some entrepreneurs appear restless and uncompromising, even in times of imminent danger of failure. They perceive opportunities when others see none. This goal-setting strategy combines with the other important entrepreneurial traits to great advantage.

Accountability

Entrepreneurs love to achieve success in whatever they attempt. However, in their quest for success, they sometimes meet with failure. To the entrepreneur, growth and profit are attendant blessings; they do not constitute success in themselves but are the feedback indicating that everything has worked out as expected. Entrepreneurs love to keep a careful record of their achievements, and this record-keeping attitude possibly is helped by the entrepreneurs' planning and high ethics. Entrepreneurs constantly need feedback and sometimes have different measurements for themselves than what others perceive. In every case, they are accountable to themselves as their entire lives depend on it.

Innovation

Innovation can be considered as doing a common thing in an uncommon way. All successful entrepreneurs are innovators. They introduce into the economy new ideas, new goals, new methods of production, and new methods of distribution, or they introduce a new organization into the industry. Entrepreneurs believe that no amount of self-sacrifice can make up for an inferior product or service that nobody wants. They tend to be very informal and very versatile--qualities that ensure that the job gets done properly by themselves and subordinates. "If you cannot do it, I will do it myself" seems to be the philosophy of most entrepreneurs (Nwachukwu, 1990).

Characteristics of Entrepreneurs in Lesotho

In his theory about the characteristics of typical entrepreneurs, McClelland viewed their motivation and desire to achieve as the key determinants for venturing. In many developing countries, particularly in southern Africa, the reasons for venturing into entrepreneurial activities can vary along economic and cultural lines. The characteristics and traits that McClelland highlighted may not (on all counts) be evident in Lesotho. The economy in Lesotho tends to be the motivating force for indigenous entrepreneurial activity. Lesotho has a labor force of about 780,000, which increases by about 20,000 annually. The employment situation has deteriorated in the last few years; in fact, the unemployment rate rose to 36% in 1992, from 23% in 1985. In recent years, more than 100,000 Basotho men have been absent at any given time, employed in South Africa (Lesotho Ministry of Health, 1993). Employment prospects for Lesotho are negatively affected by the declining recruitment by the South African mining companies. There is also a general lack of employment creation and opportunities; however, the private sector and the development of entrepreneurial skills appear to be the only alternatives to unemployment. Nevertheless, in Lesotho, there are relatively few individuals who aspire to become entrepreneurs solely because they possess distinctive characteristics.

The general attitude and values prevalent in Lesotho are inconsistent with entrepreneurial development (at least by western standards). Typical entrepreneurs in Lesotho, particularly in the informal sector, do not seek to isolate themselves from

their families and communities to achieve individual financial gain. However, many of these individuals fall into entrepreneurial activities or enterprises because of a lack of employment opportunities, loss of jobs, and a lack of the education, training, and skills necessary to compete in the modern formal sector. Also, many of the unskilled entrepreneurs in Lesotho are motivated by the need to take care of themselves and provide for their families. These entrepreneurs tend to be driven by the need to survive on a daily basis and, to a lesser extent, because of a life-long desire to be an entrepreneur. Under these circumstances, one can only speculate as to whether untrained entrepreneurs would continue to venture if opportunities for gainful employment were available in Lesotho.

Lesotho Agricultural College administrators have addressed the issue of culture by encouraging their lecturers to teach and, whenever possible, help students to develop entrepreneurial skills that are culturally and locally acceptable. Also important in this process is for students to be able to conduct business in a manner that is conducive to sustained economic growth.

Rewards of Entrepreneurship

Not everyone wants to be an entrepreneur. Many salaried workers do not want to abandon a good remuneration package from a large firm or civil service job and pursue the unknown (Nwachukwu, 1990). Collins (1971) asked, "Why should one turn away from the seeming security and, one might say, clarity and simplicity of existing mobile paths to strike off on his own into a frequently disorganized and irrational economic wilderness?" (p. 11). Despite the relative fear that is sometimes

common for aspiring entrepreneurs, many of them recognize the rewards to be gained from such an activity.

According to Kiyawa (1981), there are a number of reasons why people may want to become entrepreneurs, assuming they possess the necessary qualities and experience and can acquire the necessary capital. Some of the rewards to be gained from being an entrepreneur include (a) being one's own boss, (b) control of income, (c) flexibility and creativity, and (d) profit. Most entrepreneurs have cited the profit motive as the most influential factor and incentive for being an entrepreneur.

Constraints That May Influence Entrepreneurial Activity

In Africa, entrepreneurship, in all its diverse forms, provides a dynamic and potentially efficient means of meeting many of the emerging challenges of development in the region. The question that then arises is, what is holding African entrepreneurs back? What are the constraints on entrepreneurial success in the 1990s? Luke (1995) identified the following general constraints on entrepreneurial activity:

1. Political instability
2. Lack of business confidence
3. Deteriorating infrastructures
4. Uncoordinated policies on business promotion and development
5. Insufficient knowledge in government about the business sector

These hindrances to entrepreneurial activity are discussed in the following paragraphs.

Political Instability

Political instability can be defined "objectively" in terms of a breakdown in the normal functioning of government, civil unrest, or an acute condition of political disorder. A weakly institutionalized government, challenges to the legitimacy of established authority, and civil unrest generate fear. Africa is losing billions of dollars each year in both indigenous and foreign investments as a result of perceptions of risk associated with political instability. Such perceptions would deter a micro-entrepreneur wishing to set up an operation to produce kerosene lamps, just as they would deter a large investor wishing to establish a factory to manufacture office furniture (Luke, 1995).

Lack of Business Confidence

Luke (1995) asserted that general constraints on entrepreneurship in contemporary Africa apply to existing and potential entrepreneurs. He contended that a lack of business confidence can stem from an established record of poor economic management in the country in question. In such a context, entrepreneurs' business confidence shrivels out of fear of the chaotic state of economic management.

Luke (1995) also maintained that public statements accusing entrepreneurs of exploitation, profiteering, and other antisocial conduct are consistently made by politicians or influential public figures. Nwachukwu (1990) stated that not everyone sees entrepreneurs as honest human beings. Some skeptics see them as destroyers of nature, robbers, and cheats. Others see them as responsible for the

exploitation of the poor, as well as for the country's economic malaise. They are generally conceived of as middlemen who hoard essential commodities, raise prices, and create artificial scarcity of goods. Still others claim that what exist in large numbers are pockets of crafty hustlers scattered all over the country, who are interested in how much cash they can make within the twinkle of an eye and with the barest of efforts, initiative, and commitment. Luke concluded that, when public authorities fail to demonstrate a realistic understanding of the role of entrepreneurs in national development, the business community may feel vulnerable, exposed, or inclined to take their investments elsewhere.

Deteriorating Infrastructure

The general business climate is affected by the quality of the public infrastructure. One of the outcomes of Africa's intractable economic crisis of the 1980s was the deterioration of infrastructures, particularly in power, transport and communications, and water supply. Telephone and other communication facilities that work erratically, congested port facilities, and badly surfaced roads inevitably result in delays (Luke, 1995). As Kennedy (1988) noted in his assessment of contemporary capitalism, such inadequacies push up the cost of handling inputs and outputs.

Uncoordinated Policies on Business Promotion and Development

Uncoordinated policies regarding finance, trade, and labor contribute to an unfavorable business climate for entrepreneurs. This problem is often the result of

inconsistent economic objectives. One agency or government does one thing, and another agency (perhaps within the same division) does the opposite. However, if economic objectives are to be implemented with consistency, there is simply no alternative to sound institutional capacity in government for policy development, analysis, and review (Luke, 1995).

Insufficient Knowledge in Government About the Business Sector

Efficient information flow between government and the business community is perhaps the most crucial element to improving the business climate, overcoming policy inconsistencies, and bolstering business confidence. Three areas of weakness are worth emphasizing: (a) inadequate institutional mechanisms for consultation and consensus-building between planners and policy makers, on one hand, and different sectors and levels of the business community, on the other; (b) shortcomings in national microeconomic data bases and information systems; and (c) insufficient appreciation in government of the role of market networks in business development in enhancing the efficiency of the business operation (Luke, 1995).

Constraints on Entrepreneurial Activity in Africa

In addition to the above-mentioned hindrances, there are also specific factors and constraints that lie within the general constraints already cited that may influence entrepreneurial activity in Africa. The following factors are those most frequently mentioned in the literature: (a) social, (b) cultural, (c) economic, and (d) skills, education, training, and experience.

Social factors. Entrepreneurs, like all human beings, love social recognition. A society can achieve a high degree of sustained economic efficiency only if its social structure is oriented to give special recognition to the achievement of occupational success (Nwachukwu, 1990). Sawyer (1920) noted that

> Observable national differences in entrepreneurial activity . . . cannot be accounted for in terms of economic factors alone, or in terms of the hero in history, the distribution of genes, or any simple psychological reductionism. These differences cannot be explained without reference to the system of goals and values and the scale of social ranking and the patterns of conduct that are institutionalized in a particular society. (p. 25)

Weber (1935) observed that the main factors that promoted capitalism and industrialization in Western Europe and North America are to be found in the value system inherent in the "Protestant ethic" that motivated those who had the opportunity to behave the way they did.

Similarly, Nwachukwu (1990) asserted that creating a favorable climate in which entrepreneurs can flourish is a precondition for the development of businesspeople and economic growth. He continued that it is the responsibility of the government to create such a climate by an overt recognition of men and women of outstanding achievement in business through favorable legislation, educational modernization, and other promotional activities. Kiyawa (1981), like Nwachukwu, believed that entrepreneurial activity is determined by the value the society places on such activities as compared to other endeavors. The social environment, according to Schumpeter (1955), can sometimes react violently against anyone who attempts to do something different. Kiyawa illustrated Schumpeter's point by stating that, if the society bestows greater prestige on employment in the civil service,

entrepreneurial activity is likely to be curtailed. On the other hand, if entrepreneurial activities carry greater prestige, then more people are likely to become entrepreneurs. Thus, the society as a whole may derive greater or less utility from entrepreneurial activities, thereby affecting its supply of entrepreneurs accordingly.

Another aspect of the social factor is the responsibility of the entrepreneur. Given the tradition of the extended family in Africa, the entrepreneur is expected to understand, appreciate, and help solve a host of familial problems and be aware that the enterprise is an extension of the home. The extended family, however, can also be considered a constraint on entrepreneurial activity. According to Kindleberger (1977), the extended family system "has a distinctly inhibiting effect on most of the factors affecting economic development, such as savings, risk taking, and even the willingness to work for a higher pay" (p. 23). Wolf (1955) asserted that the extended family can deter economic growth by creating discontinuities between production and distribution. He maintained that the extended family entails a system of shared rights and obligations encompassing a large number of near and distant relatives. Wolf described the characteristics of these relationships, whereby the individual family member receives the right of support from and security with the group. He pointed out that, when a member of the group contemplates a wealth-increasing activity through investment, he must bear all of the cost associated with the venture. However, "the fruits of returns from the entrepreneur's investment are subject to sharing among the other members of the extended family" (Wolf, 1955, p. 873).

Kamarck (1972) pointed out that the African type of family system is detrimental to economic development for the following reasons:

1. It tends to discourage individual initiative and enterprise.

2. It tends to discourage accumulation of capital and drains away that which may have been accumulated.

3. Not only are savings held down, but the proliferation of small entrepreneurs is also prevented.

4. Loan agencies often refuse to provide loans to small businesses because of the fear that other family members may force the entrepreneur to convert the loan for family use.

Another important aspect of the social factors and constraints that may influence entrepreneurship development is the responsibility the entrepreneur is assumed to have to his or her community and society. Basic assumptions are that the entrepreneur is responsible for producing and distributing safe products and services at all times. The enterprise extends beyond those who patronize the business to the society as a whole. Thus, the entrepreneur is accountable for the performance of the business to the co-owners, the distributors, the suppliers, the consumers, and the society in general (Nwachukwu, 1990).

Cultural factors. The legitimacy of entrepreneurship is a major cultural factor that affects the decision to start new business ventures. The culture, subculture, family environment, and role models play an important role in shaping the decision to forsake the security of employment for the uncertainty of a new venture. The

legitimacy of entrepreneurship is one aspect of culture, which involves the societal attitude toward entrepreneurship. In some societies, entrepreneurship is highly respected, whereas in others it is downgraded (Yuan & Low, 1990). In the United States, entrepreneurship is reminiscent of the early pioneers who opened up new frontiers in the country and established wealth and prosperity. The legitimacy that entrepreneurship enjoys in the United States is a major reason why it has been small businesses that have accounted for the majority of jobs created, especially in the 1970s. A critical dimension to this legitimacy is the attitude toward failure. A culture that is not highly tolerant of failure and does not consider failure an opportunity to learn would not be conducive to new venture formation.

Birch (1989) discussed the reasons behind the much higher job-creation ability of small companies in the United States as compared to Europe, and the resultant higher permanent structural unemployment rate in some European countries:

> . . . The Europeans have cultural attitudes that go much deeper than the rules. In particular, they have a very different attitude toward failure. The U.S. is far more tolerant of failure than they. If you fail in Europe you are socially and economically ostracized. You do not have a second chance. But you can fail here and do quite well. I have a banker friend who will not make a loan to anybody who has not failed once. There is a totally different attitude toward risk taking and failure in the U.S., which places great social stature on the entrepreneur. Somebody who has tried and failed is better in U.S. eyes than somebody who has not dared to try, whereas in Europe it is just the opposite. Only 1.7 percent of the graduates of Dutch universities ever end up in a small business, but 75 percent of the graduates of Harvard Business School end up in a small business within 10 years. There is a totally different attitude toward the role of the entrepreneur and a cultural acceptance here of the entrepreneur, which adds up to a different set of rules, based on these deeply held attitudes toward what an acceptable life is and what a career is all about. (p. 191)

Economic factors. According to Hoselitz (1960), one of the main challenges in the theory of economic growth is to determine the mechanisms by which the entire social structure of developing countries becomes altered and takes on the features that characterize an economically advanced country. On this point, Kiyawa (1981) asserted that some writers do not appear to be aware that the value system in every society is unique, and in Africa, as perhaps in many other cultures, economic development is not the only value that people cherish. Kiyawa maintained that western economic theory does not say anything about familial structure and thus is not applicable to all societies.

The economic environment can seriously affect entrepreneurship (Kiyawa, 1981). This is particularly the case in Nigeria, where, according to Schatz (1977), indigenous entrepreneurs must operate in a totally "foreign" environment: They buy and sell from foreign-owned companies, they compete with such enterprises, they seek financing from foreign-owned banks, and they deal with foreign managers, foreign accountants, and foreign consultants. The rules and procedures of the economy, the personnel, the unspoken and unconscious presumptions and judgments, and even the language are of alien origin. What this means is that, even when there is no competition from foreign firms, the necessity of operating in such an environment can limit indigenous entrepreneurial capacity.

Availability of capital is another factor affecting entrepreneurship development. In many African countries, entrepreneurs attempt to secure loans from local lending institutions, i.e., agricultural development banks. However, for the

borrower to secure such a loan, it usually is the policy of the lending institution to require the borrower to have assets or collateral (i.e., land, property, farm equipment) equal to that of the loan request, as a guarantee of security or repayment. Many aspiring entrepreneurs are unable to secure loans under these conditions. The lending institution, however, is not always the first place entrepreneurs go to secure capital. Four sources of capital were mentioned in the literature as routes entrepreneurs take to secure funds: (a) personal savings, (b) capital investment in the business by family and friends, (c) loans from family and friends, and (d) a loan from a financial institution. Schumpeter (1955) stated that "capital is the lever by which the entrepreneur subjects to his control the concrete goods which he needs. If a potential entrepreneur does not possess capital himself and cannot borrow it from elsewhere, then he simply cannot become an entrepreneur" (p. 199).

Skill, education, training, and experience factors. As previously mentioned, one must possess the necessary entrepreneurial qualities in order to function as an entrepreneur. However, these qualities, by themselves, are not enough. One must possess the necessary skills, education, training, and experience to go along with those qualities of entrepreneurship. Most researchers studying African indigenous entrepreneurship have concluded that the prerequisites are lacking in the indigenous entrepreneur. According to Harris (cited in Teriba & Kayode, 1977), in a study of 48 indigenous entrepreneurs in Nigeria, "the major entrepreneurial deficiencies lie in

echnical and managerial skills, which limit the ability of many would-be entrepreneurs to successfully exploit the opportunities they perceive exist" (p. 208).

Nwachukwu (1990) stated that there are many causes for business failure in Africa. He provided the following list of reasons why some entrepreneurs are known to have failed, despite their enthusiasm:

1. Lack of training and adequate preparation.

2. Lack of understanding and appreciation of the art and science of management.

3. Frustration with changing competitive conditions because of inability to evaluate these conditions and learn how to cope with them.

4. Inability to separate oneself from the business, in which case the entrepreneur uses business money as he or she sees fit because the individual believes he or she is the owner of the enterprise.

5. Lack of proper understanding of the market; in some instances the entrepreneur defines his or her market narrowly.

6. Lack of financial understanding--inability to determine the availability of funds and how to use them to the best advantage.

7. Lack of appreciation for and use of accounting functions.

8. Lack of planning: The entrepreneur gets so involved or preoccupied with day-to-day details that he or she has no time to plan and analyze the business.

9. Lack of adequate capital and overstretching of available capital.

tied

10. Too much or too little in fixed assets: Sometimes available capital is tied up in buildings and offices.

11. Poor credit management.

Researchers throughout the world have pointed to poor management as the major factor in the failure of entrepreneurs. However, in more advanced countries, the problem of managerial know-how does not constitute as much of a bottleneck as it does in developing countries. In the former, the businessperson can "buy" the skills he does not possess. With regard to skills, an entrepreneur can either learn from experience to sharpen his or her skills or elect to participate in a structured entrepreneurship-development program in which management skills are taught.

With regard to education, many researchers have found that the educational level of African entrepreneurs is no higher than that found in the population as a whole. In his study, Kilby (1977) found that a neutral relationship existed between education and business success, and two of the least schooled individuals in his study enjoyed the highest sales. A lack of education is coupled with entrepreneurs' having a lack of reliable information. The entrepreneur often does not possess any kind of reliable information or good advice on which he or she can base production decisions.

Most studies on African entrepreneurship have concurred on the high degree of inefficiency exhibited by entrepreneurs. Many entrepreneurs obtain their experience through trial and error, and during the course of gaining that experience they make many mistakes that lead to inefficiency.

Studies of Entrepreneurship-Development Programs

Entrepreneurship has long been recognized as a key factor in the development process (Marsden, 1990, p. 1). Many countries are now recognizing the need for entrepreneurship development as a means of alleviating unemployment. Several authors have indicated that, in many countries, 60% to 70% of all school dropouts are unable to find jobs, resulting in a rapidly increasing pool of unemployed young people (Brockhaus, 1991).

In a recent study of six developing countries in Asia, the relative incidence of unemployment among youths was found to be three to nine times higher than in other population groups (Brockhaus, 1991). Of particular concern to the governments of these countries is the increasing number of unemployed graduates. Whereas educational opportunities have expanded, job opportunities have not kept pace. Because unemployed graduates are a politically sensitive group, many governments are focusing attention on creating employment for them through self-employment and small-business programs as a possible solution to the growing problem (Brockhaus, 1991). These efforts are pronounced in socialist countries in Asia, such as Vietnam, Laos, and Burma. Leaders in these countries have decided to decentralize and "marketize" their formerly planned economies. Public enterprises are being given operational and financial autonomy, and the private sector, which is largely small scale, is being revitalized and encouraged through a variety of means. Most urban migrants who manage to find self-employment end up working as roadside vendors and push-cart traders, and in micro-sized enterprises.

Because these ventures are not subject to formal rules of contracts, licenses, taxation, and labor inspection, they often are termed the "informal sector." In many Asian cities, this sector accounts for 50% of the employment. Although few governments have found workable ways to support the informal sector, an increasing amount of attention is being given to how the sector can be reached and helped to meet its potential for employment, productivity, and growth (Brockhaus, 1991).

The importance of small business to the economy is now widely recognized, not only by the western industrialized world, but also by many developing countries. Courses on topics related to entrepreneurship development and small business are beginning to appear in the curricula of many colleges and universities throughout the world. However, the major sources of training, education, and research outside the industrialized nations are quasi-governmental or governmental agencies (Brockhaus, 1991).

Asia

An increasing number of governments in developing countries are including special sections on small-enterprise formation in their development plans and are designing targets for the sector's contributions in the areas of business creation, value added, export potential, regional development, and so on, to achieve these targets. In fact, most Southeast Asian countries have a range of programs and policies aimed at stimulating the growth of small enterprises.

One of the most advanced support systems is in Japan. The Small and Medium Enterprise Agency indicated that small business is "active in becoming an important part in the Japanese economy" (Brockhaus, 1991, p. 77). Considerable research has been done by university professors, dealing with corporate strategies and regional economic development. Despite the level of research interest, however, the level of student interest in entrepreneurship courses is not as high as it is in United States universities. Adult training is offered by the Small Business Corporation, which is fully sponsored by the government. The corporation offers various kinds of curricula such as management education, with courses lasting from one week to one year (Brockhaus, 1991).

Over the past 30 years, Korea has suffered from numerous economic ordeals. Because of insufficient capital, technology, and resources within the country, coupled with the limited size of its domestic market, Korea had to borrow huge amounts of foreign funds, creating a large foreign-exchange debt. In an effort to achieve high growth in strategic industries, the Korean government concentrated on certain large-enterprise groups, leaving small and medium-sized enterprises unattended. However, although the large-enterprise groups received preferential treatment, they made little contribution to technological development. In an attempt to remedy this problem, the government developed a course of growth for the economy so as to maintain economic development on a continuous basis. The long-term plan, which has been amended to the national constitution, states that "the state shall protect and foster the small and medium-size business enterprises"

(Brockhaus, 1991). The results of small-enterprise investment and development have been astounding. In 1962, when the first economic plan was initiated, the size of the gross national product was barely $210 million. This figure grew to more than $250 billion in 1988, representing a drastic change in per capita income from $82 to $3,700. The per capita income was expected to reach $5,000 by 1991. This growth rate was considered remarkable even among newly industrialized countries (Brockhaus, 1991).

Hong Kong is another example. The country has a long and well-established relationship with free enterprise. However, it has no major educational research or assistance programs with regard to entrepreneurship. Thailand is similar in that its research efforts are very limited, as are its offerings in small business. However, Srinakharinwiorf University does offer business-related courses and has an outreach program for practical assistance to small businesses.

The government in India is taking a special interest in promoting small businesses, in order to combat the problem of unemployment and to reduce the concentration of wealth in a few large businesses. As a result, India is one of the leading Third World countries in promoting entrepreneurship. More than 100 different departments in Indian universities offer courses in entrepreneurship, including many at the graduate level. They also provide research and training and consulting programs. However, Punjab University has the only Chair in Entrepreneurship in India. Most provinces have Small Industries Service Institutes that provide entrepreneurship-development programs. Trainees in these programs

are given financial support to start businesses, receive exemptions from taxes, and are protected from undue competition from large businesses (Brockhaus, 1991).

Australia and New Zealand

Australia and New Zealand combine aspects of the United States and England in their customs and approaches to small-business education and training. There are strong academic courses and outreach programs similar to those offered through Small Business Development Centers in the United States. Academic research runs the gamut from practical to theoretical courses on entrepreneurship. The University of New England, the University of Newcastle, and Melbourne University are the primary sources of entrepreneurship research in Australia. In New Zealand, major university efforts in such research are at Massey University and the University of Wiahato (Brockhaus, 1991).

Africa

Entrepreneurship has been downplayed in many African countries over the past 30 years, in part because indigenous entrepreneurs were presumed to be scarce and foreign entrepreneurs were distrusted. It was also widely believed that entrepreneurial functions could be performed better by the state than by private individuals. Most policy makers and development economists believed that the government should control the use of resources, although a few dissident economists maintained that there were plenty of entrepreneurs in Africa. However, a reappraisal of development strategies has been taking place over the past five

years, providing evidence that the public sector is inefficient. A World Bank report (cited in Marsden, 1990) asserted that "Africa needs its entrepreneurs" (p. 1), and that achieving sustainable growth will depend on the capacity of people from all levels of African society to respond flexibly as new market and technical opportunities emerge.

Egypt has a weak private-enterprise system in the informal sector, composed predominantly of small store-front businesses. Assistance programs and research are conducted primarily through government-sponsored organizations, including the USAID, which is a major sponsor of applied research. The Sadat Institute and the American University both have academic entrepreneurship courses and conduct minimum amounts of applied research.

In South Africa, the white business community and large corporations function in ways similar to those in the United States. The government and universities offer courses and programs similar to those found on many United States campuses. Students are taught such skills as sewing and farm management to enable them to have a trade they can use to produce income. These basic programs are offered primarily through quasi-governmental agencies and university extension networks. In many cases, "mentors" continue to advise the business owners after the course. To be effective, however, such programs must be practice-oriented (Brockhaus, 1991).

In their article entitled "Black Business in South Africa: A Challenge to Enterprise," Phillips and Brice (1988) indicated that small enterprise has a vital

function to perform in any society. Similarly, Dawson and Kirby (1977) concluded that the small organization is an appropriate vehicle for the provision of customized and convenience products or services. Such a firm often has innovative flair, provides countervailing or anti-monopoly power, and generates employment opportunities.

Kenya's employment projections to the year 2000 indicate that 75% of all new jobs created in urban areas will be in the informal sector and that 50% of all rural employment will be in the nonfarm sector. These estimates underscore the importance of small-enterprise development in Kenya as the major generators of employment and growth in the near future. There is a need for small-business-enterprise trainers, and that training should be concentrated on innovation, product development, and diversification. There is also a need to retrain existing teachers and to give trainers more exposure to small-business operations, to use more entrepreneurs as trainers, and to train more private small-business consultants (Brockhaus, 1991).

The government of Nigeria is making a concerted effort to help in the creation of employment, especially for school leavers and graduates. The Federal Ministry of Employment, Labor, and Productivity devised a measure aimed at generating a new breed of entrepreneurs. This measure is the Entrepreneurship Curriculum for institutions of higher learning, to be monitored by the National Directorate of Employment. The emphasis of the Directorate is job creation, through the

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development of small-scale industries. In addition, the federal government started a new program called the Entrepreneurship Development Program (EDP).

The overall objective of the EDP is the development of successful entrepreneurs who will establish and manage viable small and medium-size enterprises in the country. Specific objectives of the EDP are:

1. Development of a corps of potential entrepreneurs who are well equipped to start and successfully manage small and medium-size enterprises.
2. Encouragement of self-employment.
3. Generation of employment opportunities for others.
4. Reduction in dependence on the government and large firms for employment.
5. Drastic reduction in defaults on loans.
6. Stimulation of rural development.
7. Achievement of a meaningful level of industrial dispersal (Federal Ministry of Employment, Labor, & Productivity, 1987).

The National Directorate of Employment grants loans, which are to be employed in setting up viable small and medium-size enterprises capable to creating more jobs and contributing to the growth of the economy. The government has at least recognized that development requires entrepreneurs, a fact that has been well recognized in many countries (Nwachukwu, 1990).

Universities, polytechnics, and other institutions of higher learning can be effectively used in entrepreneurial development. The role of management education

in helping to produce entrepreneurs cannot be overstated. This appears to be the only academic discipline that holds promise in terms of entrepreneurial development (Nwachukwu, 1980).

The Student Enterprise Program at Lesotho Agricultural College

The Student Enterprise Program (SEP) at Lesotho Agricultural College began in 1987 with five students and five projects: dairy, beef, broilers, piggery, and vegetable production. The SEP was initiated at the college at the request of the Ministry of Agriculture, for the purpose of preparing students who would graduate with hands-on agribusiness experience and who could potentially become entrepreneurs. The inception of the SEP was sustained with the technical and financial support of the USAID-funded Lesotho Agricultural Project and Institutional Support (LAPIS) Project from 1986 through 1992. The program is now fully a major part of Lesotho Agricultural College's Diploma in Agriculture and Home Economics Curriculum.

Although the LAPIS Project has ended, the government of Lesotho still supports the idea of entrepreneurial development through the SEP. The SEP is the capstone of the college's effort to produce trained, small-scale agricultural entrepreneurs. In this unique and challenging program, students are guided through a close approximation of a real-life commercial production experience. Each participant works closely with a faculty advisor to develop an enterprise plan and budget, which constitute a contract for funding from a credit institution established with the support of the college. After securing a loan, students rent needed facilities

and equipment from the college, purchase inputs, and initiate the planned enterprise. Students submit weekly reports to their superiors. All work, including marketing, is the responsibility of the student, who also accrues all of the profits (Artz, Rooyani, & Tyson, 1990).

The SEP orientation program, annual workshop, and curriculum expose aspiring entrepreneurs to the concepts and importance of time management, budgeting, record-keeping, marketing, purchasing, communication (including negotiating), and customer-service skills. The SEP has established a trust fund for the purpose of providing loans to entrepreneurs. The fund allows entrepreneurs to conduct business, from production to consumer, as they would in the real world. Upon graduation, entrepreneurs have an opportunity to develop a well-written business plan (with advice from their project supervisors) and attempt to secure a loan from the Lesotho Agricultural Development Bank either to continue the same project or to venture into another agriculture-related business activity.

Chapter Summary

The review of literature was intended to introduce the theoretical and conceptual framework of the study, in order to provide an understanding of the strengths and shortcomings that exist in entrepreneurship theory and research. Early researchers focused on entrepreneurs and their contributions to economic development (Dobb, 1926; Knight, 1921; Leibenstein, 1978; Schumpeter, 1955). McClelland (1961, 1962, 1965a, 1965b) introduced the psychological characteristics of entrepreneurs. In his research, he linked the entrepreneur's strong work ethic, the

need for high achievement, and economic development. Many scholars (e.g., Brockhaus, 1982; Brockhaus & Horwitz, 1986; Kilby, 1972; Schatz, 1972) have attempted to disprove McClelland's achievement-motive theory. Recent literature on the psychological characteristics of entrepreneurs has been critical of the trait-oriented approach and its failure to address why some people are more likely than others to pursue and maintain an entrepreneurial career. Scholars have maintained that McClelland's definitive link between achievement and entrepreneurial success has not yet been established. Casrud and Johnson (1988) believed that social psychologists can contribute by developing a well-grounded and conceptual framework for building entrepreneurship theory.

The review of literature indicated that one purpose of studying entrepreneurship is to explain the factors that motivate an individual to select an entrepreneurial career. Blau, Gustad, Jessor, Parnes, and Wilrock (1956) viewed career selection as the outcome of numerous environmental, sociopsychological, and personality influences. The economic environment constricts choice in times of recession--for example, if people cannot find employment in the fields for which they have been trained. Biological endowments and early childhood socialization contribute to personality development. At the sociopsychological level, educational attainment, social-class membership, and one's orientation to occupational life are significant background factors associated with career preference and actual career expectations (Scherer et al., 1989).

Numerous studies have been aimed at isolating the reasons individuals pursue an entrepreneurial career. In this regard, researchers have identified the presence of a parent who, at some time during the child's life, also pursued an entrepreneurial career (e.g., Collins & Moore, 1970; Ronstadt, 1984; Waddell, 1983; Watkins & Watkins, 1983). The conclusion that can be drawn is that entrepreneurial parents in some way influence their offspring's selection of an entrepreneurial career (Scherer et al., 1988). Some investigators (e.g., Ronstadt, 1983, 1984) have suggested that parents influence their children's entrepreneurial career choices through a process of role modeling. Role modeling occurs when social behavior is formally observed and then adopted by a person who has learned by example rather than by direct experience (Bandura, 1977). Although, theoretically, anyone can serve as a role model for a child, the family in general and parents in particular are especially likely to be role models because they are the major source of socialization for the child (Scherer et al., 1989).

Although most researchers have identified the presence of a parent entrepreneur in the backgrounds of entrepreneurs, and some (e.g., Ronstadt, 1983, 1984) have gone so far as to suggest that this is due to role modeling, no one has investigated whether a parental role model has actually affected an individual's preference for an entrepreneurial career (Bowen & Hisrich, 1986). The social learning theory (Bandura, 1977; Bandura & Walters, 1963), because of its emphasis on the effect of behavioral models on the socialization process, offers a fresh and

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well-defined conceptual framework from which to study the effects of parental role models on entrepreneurial development (Scherer et al., 1988).

Researchers of entrepreneurship in developing countries have considerably different social, cultural, economic, and political dynamics to consider than those conducting similar research in most developed countries. Churchill (1989) asserted that, whenever possible, researchers should avoid reductionism in entrepreneurship research. Instead, they should look at the whole entrepreneurial process.

Many insights were gained from the literature review and thus guided this study. This researcher sought to identify and describe the factors that influence entrepreneurship development in the SEP by examining the process as it was taking place. The views held by the enrolled and graduated SEP entrepreneurs, the college's administrators, and SEP lecturers were examined. This study was not intended to separate the entrepreneurs from their psychological motivations or to examine the entrepreneurs in isolation. Instead, the study was designed not only to identify as many existing motivating factors and individuals that may have influenced the entrepreneur's decision to select a career alternative, but also to better understand how these factors and individuals may have influenced the entrepreneurs during the development process.

Johnson (1990) maintained that strong voices in the field of entrepreneurship research have suggested that individual entrepreneurs should be deemphasized as the focal point of research efforts in favor of more sophisticated multidimensional models. These scholars have advised that entrepreneurship research should focus

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on the process of entrepreneurship development as it is taking place within a multidimensional social context. A multidimensional research model is designed to overcome weaknesses that are inherent in unidimensional models. The multidimensional approach was developed and used in this study. This research approach allowed the investigator to gain a more accurate and clear understanding of the entrepreneurial process as it was taking place within and outside Lesotho Agricultural College.

Bygrave (1989) stated that entrepreneurship is an emerging paradigm and is currently in the pretheory stage. Realizing that theory is central to science, Bygrave asserted that more empirical models are needed in the study of entrepreneurship and that the emphasis should be on "painstaking observations" and to a lesser extent on theory building. He claimed that what entrepreneurship research needs is empirical models that describe observational phenomena as accurately as possible. Bygrave indicated that more field research is needed when studying entrepreneurship. He pointed out that entrepreneurship is a process of becoming rather than a state of being. It is not a steady-state phenomenon, and it does not change smoothly--it changes in quantum leaps. No amount of regression analysis will help one understand what happens during a leap. It can indicate only that a change occurred; it cannot tell the details of why or how the change occurred. As Bridgeman (1927) stated, "There is behind the equations an enormous descriptive background through which the equations connect with nature" (p. 21).

The heart of the entrepreneurship process may be found in the "descriptive background." One cannot get to the heart of the start-up process unless one observes it happening in the field. Bygrave (1989) concluded that complex statistical tools cannot be used for the analyses in entrepreneurship research, primarily because the samples often are too small.

CHAPTER III

METHODOLOGY AND PROCEDURES

Introduction

The methods and procedures used in this study are described in this chapter. The design of the study is discussed first, followed by a restatement of the research questions. The population is described, and sampling concerns are addressed. Development of the instrument, its validity and reliability, and methods of data collection and analysis also are discussed.

Design of the Study

The research design was descriptive, consisting of both self-administered and mailed questionnaires. The survey method was used to collect data on students enrolled in the Agricultural Education Program, the Student Enterprise Program (SEP), and SEP graduates of Lesotho Agricultural College. Two instruments were used to collect the data for this study. The first instrument consisted of items concerning students' background and experience in agriculture, factors that influenced their career choice, their perceptions of the SEP, and factors that

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advanced and inhibited the development of their entrepreneurial skills. The second instrument, which contained seven open-ended items, was developed to ascertain administrators' and lecturers' perceptions of the SEP, as well as the extent to which they believed the program was meeting its original goals and objectives. Their responses provided the researcher with additional in-depth qualitative information about the SEP.

Survey research is a widely used method of data collection in the social sciences. Survey research allows researchers to assess, in depth, information on existing conditions, relationships, beliefs and attitudes held by respondents, and their points of view. Babbie (1983) indicated that "survey research is . . . the most frequently used mode of observation in the social sciences" (p. 209). According to Isaac and Michael (1984), survey research offers many advantages. Surveys are designed to (a) collect detailed factual information that describes existing phenomena, (b) identify problems or justify current conditions and practices, (c) make comparisons and evaluations, and (d) determine what others with similar problems or situations are doing, and benefit from their experience in making future plans and decisions.

Research Questions

The following questions were posed to guide the collection of data for this study:

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Research Question 1. What are the sociodemographic characteristics of students in the Agricultural Education Program, the SEP, and SEP graduates, including their agricultural background and experience?

Research Question 2. What are the factors that influenced the career choices of students enrolled in the Agricultural Education Program, the SEP, and SEP graduates?

Research Question 3. What perceptions do SEP students and graduates have about the program?

Research Question 4. What are the factors that have advanced SEP students' and graduates' development of entrepreneurial skills?

Research Question 5. What are the factors that have inhibited SEP students' and graduates' development of entrepreneurial skills?

Research Question 6. What are the entrepreneurial experience and skills held by the administrators and lecturers at Lesotho Agricultural College?

Variables

Survey research usually involves the testing of hypotheses concerning differences that may exist between variables. However, in this study, independent or dependent variables were not identified because the variables were used solely to describe status.

The Population

According to Rossi (1983), there are two types of populations: target population and survey population. The target population is the collection of elements a researcher would like to study. Borg and Gall (1983) defined the target population

as "all the members of a real or theoretical and hypothetical set of people to which we can generalize the results of our research" (p. 241; see also Babbie, 1983). The survey population is the one that is actually sampled and for which data may be obtained. The survey and target populations for this study included students enrolled in the Agricultural Education Program, students enrolled in the SEP, SEP graduates, and Lesotho Agricultural College administrators and lecturers.

The students in the study were in their second and third years and were enrolled in the Agricultural Education Program or the SEP. The graduates were persons who had graduated from the SEP. The administrators were individuals who implemented the goals and objectives of the SEP. The lecturers were individuals who served in a teaching capacity and supervised SEP projects at Lesotho Agricultural College. Specifically, the study included 37 students enrolled in the Agricultural Education Program, 13 students enrolled in the SEP, 148 SEP graduates, 4 college administrators, and 12 lecturers.

The survey population was ethnically homogeneous. In Lesotho, the Southern Sotho people belong to a clan and hereditary grouping that claims a common ancestry venerating from a certain animal totem (Gill, 1993).

Sampling

Babbie (1983) defined sampling as "selecting a given number of subjects from a defined population that is representative of that population" (p. 142). The

appropriate size for a sample depends on the details of the analysis; however, a basic principle is that a sample should be representative of the population from which it is selected. According to Borg and Gall (1983), the general rule is to "use the largest sample possible. The larger the sample, the more likely it is to be representative of the population" (p. 257).

Because of the relatively small size of the target population, this study was a census. As of January 1995, 146 students were enrolled at Lesotho Agricultural College. Thirty-seven second-year students were matriculating in the Agricultural Education Program, and 13 third-year students were enrolled in the SEP. The researcher conducted a census of all these students. A census also was taken of the 4 college administrators and 12 lecturers. This was done to obtain as much information as possible about the characteristics of each group of students, which was critical for the study.

From 1987 to 1994, 148 students were graduated from the SEP. A list of SEP graduates and their locations was provided by the college registrar's office. Upon reviewing this list, the researcher discovered that 69 of the graduates had chosen to pursue further studies in Southern Africa, and enrolled at the National University of Lesotho. Questionnaires were mailed from the college to the remaining 79 students who had graduated from the SEP. Of that number, 45 graduates fully completed and returned the questionnaires, a 57% response rate.

A list of administrators and lecturers was obtained from the Office of the Principal of Lesotho Agricultural College. All 4 administrators and 12 lecturers agreed to participate in the study.

Approval to conduct the study was obtained from the University Committee on Research Involving Human Subjects (UCRIHS) (see Appendix D).

Reducing Sampling Bias

Frame error. In this study, frame error was controlled by cross-checking the names of students on the list provided by the registrar's office who were enrolled in the second-year Agricultural Education Program, third-year students enrolled in the SEP, and SEP graduates from Lesotho Agricultural College. The list was also checked by the assistant SEP coordinator, the SEP coordinator, and two administrators at the college. The purpose of cross-checking was to ensure that individuals on the list had not been unintentionally deleted from the population.

Selection bias. Because a census was conducted with all groups, selection bias was not a concern in this study. Surveying the entire population eliminated the possibility of certain students having a better chance than others of receiving a survey.

Nonresponse error. Because the census method was employed in this study, the researcher was able to obtain a 100% response from students enrolled at the college, administrators, and lecturers. Of the 79 SEP graduates to whom

questionnaires were mailed, 45 completed and returned the instruments. Seventeen questionnaires were returned by mail to the college with a notation that the persons were no longer residing at those addresses. It was learned that three SEP graduates had died, and 14 additional were reported to be in South Africa. The researcher made every attempt possible to locate them.

The researcher had a great deal of difficulty in attempting to locate nonrespondents. Lesotho, particularly the rural areas, has inadequate or no electricity to support telecommunication services; as a result, the researcher was unable to contact nonrespondents by telephone to verify their addresses. The researcher then attempted to travel to the nonrespondents' respective villages, and in doing so he learned that some of them were no longer living at their former locations.

Development of the Instruments

Two instruments were developed for this study. The first instrument, for students and SEP graduates, comprised three parts. The first two parts were based on an instrument developed by the Farm Foundation in 1989. The Farm Foundation's research focused on high school students' perceptions of agriculture college majors and careers. The researcher developed part three of the instrument by studying other instruments designed to determine factors that influence

entrepreneurship development, as well as through personal insight. A copy of this instrument may be found in Appendix A.

Directions were given at the beginning of each part of the instrument. The purpose and objectives of the study were explained. Respondents were encouraged to write comments for the open-ended questions on the survey, and most of them did so. A supplementary sheet was included in the mailed questionnaire in an attempt to ease concerns and questions the respondents might have had about the study.

The first part of the instrument solicited information on the students' background characteristics. Part two was intended to identify and measure the factors that influenced students' career choice. The third part of the instrument was divided into four sections. The first three sections contained several statements concerning the perceptions held by the enrolled SEP students and graduates about the program. The fourth section contained open-ended questions that were used to identify the factors in the SEP that advanced and inhibited the development of entrepreneurial skills on the part of the enrolled and graduated SEP students. The three parts of the instrument were designed to gather information with which to answer the research questions.

The second instrument, for administrators and lecturers, contained seven open-ended items (see Appendix C). In question 1, respondents were asked to

describe their entrepreneurial experience and skills. Question 2 concerned the type of support the SEP needs to sustain itself. Question 3 asked respondents for their opinions of the students who selected the SEP as a career alternative. In Question 4, respondents were asked whether they believed that the original goals and objectives of the SEP were being met. Strengths and weaknesses of the SEP were sought in Question 5. Question 6 asked respondents what changes they believed are needed to improve the SEP. The seventh question asked for respondents' overall perceptions of the SEP.

Validity

When developing a survey instrument, social scientists often are concerned about two technical aspects: validity and reliability. Validity has been defined as "the extent to which a measuring device fulfills the purpose for which it is used" (Borg & Gall, 1983, p. 276). Three types of validity were considered when developing the instrument for this study: content, construct, and face validity. According to Borg and Gall, content validity is the degree to which the items on an instrument represent the content that the device is designed to measure. Construct validity, on the other hand, is the extent to which a particular instrument can be shown to measure a hypothetical construct (Borg & Gall, 1983). Isaac and Michael (1984) stressed that face validity is used to indicate whether an instrument, on the face of it, appears to measure what it claims to measure. Isaac and Michael

concluded that these three aspects of an instrument's validity are only conceptually independent, and only rarely is just one of them important in a particular situation. A complete study of an instrument would normally include information about all types of validity.

Content, construct, and face validity in this study were determined by the researcher and a panel of experts from both Michigan State University and Lesotho Agricultural College who were familiar with the concept of entrepreneurship development. The questionnaire was reviewed by Frank Bobbitt from Michigan State University; Barbara Bauman, a Business Education Instructor with the U.S. Peace Corps; Leratang Monare, SEP Coordinator; Malashoane Ramasike, Department Head of Home Economics Education at Lesotho Agricultural College; and Remaketse Williams, Department Head of Socio-Economics and Quantitative Studies at Lesotho Agricultural College. The panel's suggested changes and recommendations were incorporated to improve the instrument.

Reliability

Reliability has been defined as the accuracy with which a measuring device measures something. Reliability is also the degree to which an instrument consistently measures what it is intended to measure (Babbie, 1983; Borg & Gall, 1983; Isaac & Michael, 1984). According to Bradburn and Sudman (1986), there are several ways to determine reliability:

1. Ask only for information relevant to the research.

2. In asking people for information, ask only about things to which respondents are likely to know the answer. Ask about things relevant to them, and be clear in what you are asking.

3. State the questions clearly.

4. Ask the same information more than once, using the same or similar questions.

5. Ask several questions about the same concept. If one of the questions elicits a decidedly different response, that is a clue that the item is unreliable.

The reliability of the instrument was established in a pilot study with 27 first-year students at Lesotho Agricultural College who were not included in the study sample. The pilot test was conducted one month before the study was begun. The instrument also was tested for suitability during the pilot-study phase. The general characteristics of the pilot-test group were thought to be similar to those of the study population. As a result of the pilot study, minor modifications were made in the wording of the instrument.

The reliability of the instrument was estimated using Cronbach's alpha procedure. Cronbach's alpha is used when measures have multiple-scored items, such as a Likert-type scale (Ary, Jacobs, & Razavieh, 1990), which was the type of scale used in this study to measure the persons and factors influencing students'

career choice, choice of major, and decision to attend Lesotho Agricultural College, as well as their perceptions of the SEP. To determine reliability, the response data were entered into a computer using the Statistical Package for the Social Sciences (SPSS/Windows) and were analyzed using Cronbach's reliability coefficient. An alpha of .70 was set as an acceptable level of reliability. The reliabilities of the major subsections of the instrument are shown in Table 3.1. As can be seen in the table, each subsection and the instrument as a whole had an acceptable level of reliability. The reliabilities ranged from .75 to .92.

Table 3.1: Reliabilities of the five major sections of the instrument used in this study.

Subsection	Cronbach's Alpha
Persons influencing choice of major	.75
Factors influencing choice of major	.79
Persons influencing career choice	.92
Factors influencing choice to attend Lesotho Agricultural College	.82
Perceptions of Lesotho Agricultural College	.85
All subsections combined	.83

Data-Collection Procedures

Three methods were used to collect the quantitative and qualitative data for this study. First, data were collected by personally administering the questionnaires to enrolled students at a scheduled time. Students who were not present at the planned time were given the questionnaire at another time. Second, questionnaire were distributed to the administrators and lecturers, who completed the surveys and placed them in the researcher's mailbox at the college. Third, the researcher mailed questionnaires to the SEP graduates; these respondents returned the completed surveys by mail or hand-delivered them.

Data-Analysis Techniques

This study was conducted to describe and identify the factors that influenced the entrepreneurial development of students enrolled in the SEP and graduates of that program. Therefore, descriptive statistics (frequencies, percentages, means, and standard deviations) were used to analyze the data. The data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS/Windows).

To answer Research Question 1 (What are the sociodemographic characteristics of students in the Agricultural Education Program, the SEP, and SEP graduates, including their previous agricultural background and experience?), responses to questionnaire Items 1 through 15 were analyzed by calculating frequencies and percentages. To answer Research Question 2 (What are the

factors that influenced the career choices of students enrolled in the Agricultural Education Program, the SEP, and SEP graduates?), responses to Items 15 through 19 were analyzed and reported as means and standard deviations. To answer Research Question 3 (What perceptions do SEP students and graduates have about the program?), responses to Items 20 to 22 were analyzed and reported as means and standard deviations. Responses to Items 23 to 27 and 38 to 43 were analyzed with frequencies and percentages to answer Research Question 4 (What are the factors that have advanced SEP students' and graduates' development of entrepreneurial skills?) and Research Question 5 (What are the factors that have inhibited SEP students' and graduates' development of entrepreneurial skills?), respectively. Finally, to answer Research Question 6 (What are the entrepreneurial experience and skills held by the administrators and lecturers at Lesotho Agricultural College?), responses to the open-ended questions were categorized and are reported in narrative form.

Results of the above-mentioned data analyses are presented in Chapter IV.

CHAPTER IV

FINDINGS

Introduction

The study findings are presented in this chapter. Attention is given to interpreting the data according to the research questions posed in Chapter I. In tables containing responses from the students enrolled in the Agricultural Education Program (n = 37), the SEP (n = 13), and SEP graduates (n = 45), the frequencies usually do not total 95, which was the total sample, because some of the respondents did not answer specific items. The findings are presented in the following order:

1. General background characteristics of the respondents (this includes students enrolled in the Agricultural Education Program, the SEP, and SEP graduates).
2. Descriptive findings regarding factors that influenced the respondents' career choice.
3. Descriptive findings regarding SEP students' and graduates' perceptions of the SEP.
4. Descriptive findings regarding the factors that advanced the development of entrepreneurial skills by SEP students and graduates.

5. Descriptive findings regarding the factors that inhibited the development of entrepreneurial skills of SEP students and graduates.

6. A summary of the entrepreneurial experience and level of competence in entrepreneurial skills held by the administrators and lecturers at Lesotho Agricultural College. Comments about the SEP made by the administrators and lecturers also are reported.

Background Characteristics of the Respondents

Research Question 1: What are the sociodemographic characteristics of students in the Agricultural Education Program, the SEP, and SEP graduates, including their agricultural background and experience?

Age

Age refers to the biological age of the respondents. As shown in Table 4.1, the mean age of students enrolled in the Agricultural Education Program was 24.3 years; it was 26 years for students enrolled in the SEP and 28.4 years for SEP graduates. These findings suggest that students who entered the college and sought an entrepreneurial career were relatively mature.

Table 4.1: Mean ages of Agricultural Education Program students, SEP students, and SEP graduates.

Respondent Category	Number	Percent	Mean Age
Agricultural Education students	37	39	24.3 years
SEP students	13	14	26.0 years
SEP graduates	45	47	28.4 years
Total	95	100	26.2 years

Gender

The distribution of respondents by gender is shown in Table 4.2. Of the 37 students who were enrolled in the Agricultural Education Program, 62.2% were males and 37.8% were females. Of the 13 students in the SEP, 69.2% were males and 30.8% were females. Of the 45 SEP graduates, 79.1% were males and 20.9% were females. The higher percentages of males in each category indicate that more males than females were enrolled in agricultural education and sought an entrepreneurial career.

Table 4.2: Gender of Agricultural Education Program students, SEP students, and SEP graduates.

Gender	Agricultural Education Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%
Male	23	62.2	9	69.2	36	79.1
Female	14	37.8	4	30.8	9	20.9
Total	37	100.0	13	100.0	45	100.0

Marital Status

As shown in Table 4.3, 78.3% of the students enrolled in the Agricultural Education Program were single and 21.7% were married. Of the students enrolled in the SEP, 76.9% were single and 23.1% were married. In addition, 66.7% of the SEP graduates were single and 33.3% were married.

Table 4.3: Marital status of Agricultural Education Program students, SEP students, and SEP graduates.

Marital Status	Agricultural Education Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%
Single	29	78.3	10	76.9	30	66.7
Married	8	21.7	3	23.1	15	33.3
Total	37	100.0	13	100.0	45	100.0

Residence

Residence refers to the place where respondents had lived most of their lives. Respondents were asked to indicate where they had resided for the longest period of time, using the following categories: (1) Maseru (the capital city), (2) district town, (3) village, or (4) camp town. As shown in Table 4.4, the greatest proportion (70.3%) of students enrolled in the Agricultural Education Program had lived most of their lives in a village setting. In contrast, 46.2% of the SEP students had lived most of their lives in a village. Of the SEP graduates, 51.1% had lived primarily in a village, and 46.7% had lived either in Maseru or a district town.

Parents' Education

Education refers to the amount of formal education the respondents' parents or guardians had received. Respondents were asked to indicate the highest level of education their parents or male and female guardians had achieved, in terms of the following choices: (1) primary, (2) secondary, (3) certificate, (4) diploma, (5)

bachelor of science, (6) master of science, and (7) Ph.D. The parents'/guardians' highest levels of education are shown in Table 4.5. The greatest proportion of respondents' parents/guardians had a primary-level education (41.5%, 41.7%, 44.5% of Agricultural Education Program students', SEP students', and SEP graduates' fathers/male guardians, respectively; and 37.8%, 35.7%, and 57.1% of their mothers/female guardians).

Table 4.4: Residential background of Agricultural Education Program students, SEP students, and SEP graduates.

Residence	Agricultural Education Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%
Village	26	70.3	6	46.2	23	51.1
Maseru	2	5.4	3	23.1	13	28.9
District town	8	21.6	3	23.1	8	17.8
Camp town	1	2.7	1	7.6	1	2.2
Total	37	100.0	13	100.0	45	100.0

Parents' Occupation

As shown in Table 4.6, 24.6% of the Agricultural Education Program students', 46.1% of the SEP students', and 24.4% of the SEP graduates' parents/guardians were employed as miners in South Africa. Another 8.1% of the Agricultural Education Program students', 15.4% of the SEP students' and 28.8% of the SEP graduates' parents worked as farmers. Further, 18.9% of the

Table 4.5: Highest level of education achieved by respondents' parents/guardians.

Highest Level of Education	Father/Male Guardian						Mother/Female Guardian					
	Agric. Educ. Students		SEP Students		SEP Graduates		Agric. Educ. Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Primary	17	41.5	5	41.7	16	44.5	14	37.8	5	35.7	24	57.1
Secondary	9	22.0	3	25.0	9	25.0	13	35.1	4	28.6	8	19.0
Certificate	6	14.6	2	16.7	2	5.5	6	16.2	3	21.5	6	14.3
Diploma	4	9.8	1	8.3	2	5.5	3	8.2	1	7.1	1	2.4
B.S.	1	2.4	--	--	2	5.5	1	2.7	1	7.1	3	7.2
M.S.	3	7.3	--	--	--	--	--	--	--	--	--	--
Ph.D.	1	2.4	1	8.3	5	14.0	--	--	--	--	--	--
Total	41	100.0	12	100.0	36	100.0	37	100.0	14	100.0	42	100.0

Agricultural Education Program students' parents/guardians were employed as teachers and another 16.2% were unemployed.

Table 4.6: Distribution of respondents according to their parents'/guardians' occupations in 1995.

Profession	Agricultural Education Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%
Miner	9	24.6	6	46.1	11	24.4
Farmer	3	8.1	2	15.4	13	28.8
Employed by government	4	10.8	2	15.4	8	17.8
Teacher	7	18.9	1	7.7	3	6.7
Employed by private sector	3	8.1	1	7.7	5	11.2
Unemployed	6	16.2	1	7.7	1	2.2
Employed in agriculture	5	13.5	-	--	4	8.9
Total	37	100.0	13	100.0	45	100.0

High School Background

High school background refers to the type of academic track respondents had taken before attending Lesotho Agricultural College. Respondents were asked to indicate their high school academic track in terms of the following: (1) general, (2) business, or (3) college prep. As shown in Table 4.7, 94.6% of the Agricultural

Education Program students had been on a general academic track in high school, as had all of the SEP students and 84.5% of the SEP graduates.

Table 4.7: Distribution of respondents by their academic track before attending Lesotho Agricultural College.

Academic Track	Agricultural Education Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%
General	35	94.6	13	100.0	38	84.5
College prep.	1	2.7	-	--	5	11.1
Business	1	2.7	-	--	2	4.4
Total	37	100.0	13	100.0	45	100.0

Agricultural Background

Agricultural background refers to the amount of agricultural experience respondents had before attending Lesotho Agricultural College. Respondents were asked to indicate their background in agriculture in terms of the following levels: (1) no background in agriculture, (2) employed in agri-business, (3) born and raised on a farm, (4) employed as a farm worker, and (5) took agricultural courses in high school. As shown in Table 4.8, the greatest proportion of respondents in the Agricultural Education Program (83.8%) either had been born and raised on a farm or had taken agricultural courses in high school. Likewise, the greatest proportion of respondents in the SEP (53.8%) had been born and raised on a farm or had taken

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agricultural courses in high school. The greatest proportion of SEP graduates (62.2%) also had been born and raised on a farm or had taken agricultural courses in high school.

Table 4.8: Distribution of respondents by background in agriculture before attending Lesotho Agricultural College.

Agricultural Background	Agricultural Education Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%
Born and raised on a farm	16	43.2	6	46.1	18	40.0
Took agricultural courses in high school	15	40.6	1	7.7	10	22.2
No background in agriculture	5	13.5	3	23.1	3	6.7
Employed in agri-business	1	2.7	2	15.4	9	20.0
Employed as farm worker	0	–	1	7.7	5	11.1
Total	37	100.0	13	100.0	45	100.0

Family Farm Size

Family farm size refers to the amount of land the respondents' families had under cultivation. This question was addressed specifically to those respondents who indicated that they had been born and raised on a farm. As shown in Table 4.9,

the mean family farm size was 2.4 hectares for students in the Agricultural Education Program, 2.1 hectares for SEP students, and 2.3 hectares for SEP graduates.

Table 4.9: Mean family farm size of Agricultural Education Program students, SEP students, and SEP graduates.

Respondent Category	Number	% of Sample	Mean Farm Size
Agricultural Education students (n = 37)	14	45.2	2.4 hectares
SEP students (n = 13)	5	16.1	2.1 hectares
SEP graduates (n = 45)	12	38.7	2.3 hectares
Total	31	100.0	2.2 hectares

Type of Family Farm

Respondents who had been born and raised on a farm were asked to indicate the type of farm their family had in terms of the following: (1) livestock, (2) vegetable, and (3) mixed, consisting of both livestock and vegetables. The greatest proportion of respondents' families (75%) had a mixed type of farm (see Table 4.10). All of the SEP students had a mixed family farm, and 72.2% of the SEP graduates had a mixed family farm.

Farm Family Income

Respondents who had been born and raised on a farm were asked whether the family farm was the major source of income. As shown in Table 4.11, the greatest proportion of respondents in the Agricultural Education Program (68.8%)

indicated that farming was their families' major source of income. SEP students and graduates were about equally divided according to whether or not farming was their families' major source of income.

Table 4.10: Distribution of respondents by family farm type.

Family Farm Type	Agricultural Education Students (n = 37)		SEP Students (n = 13)		SEP Graduates (n = 45)	
	Freq.	%	Freq.	%	Freq.	%
Mixed	12	75.0	6	100.0	13	72.2
Vegetable	4	25.0	-	--	3	16.7
Livestock	-	--	-	--	2	11.1
Total	16	100.0	6	100.0	18	100.0

Table 4.11: Distribution of respondents according to whether or not they regarded farming as their family's major source of income.

Farming as Major Source of Income	Agricultural Education Students (n = 37)		SEP Students (n = 13)		SEP Graduates (n = 45)	
	Freq.	%	Freq.	%	Freq.	%
Major source	11	68.8	3	50.0	8	47.1
Not a major source	5	31.2	3	50.0	9	52.9
Total	16	100.0	9	100.0	17	100.0

Factors That Influenced Respondents' Career Choice

Research Question 2: What are the factors that influenced the career choices of students enrolled in the Agricultural Education Program, the SEP, and SEP graduates?

Frequencies, percentages, and means were used to determine and describe the factors that influenced respondents' career choice. The findings are discussed in the following paragraphs.

As shown in Table 4.12, 82.3% of the students in the Agricultural Education Program rated their academic performance in agriculture-related subjects in high school as excellent or good. In contrast, 69.2% of the students in the SEP rated their performance in agriculture-related subjects as excellent or good, and 75% of the SEP graduates did so. This finding is not surprising because most of the respondents had relatively strong agricultural backgrounds, either from being raised on a farm or having taken agricultural courses in high school.

Table 4.12: Distribution of respondents by their academic performance in agriculture-related subjects in high school.

Academic Performance	Agricultural Education Students (n = 37)		SEP Students (n = 13)		SEP Graduates (n = 45)	
	Freq.	%	Freq.	%	Freq.	%
Excellent	8	23.5	2	15.4	8	22.2
Good	20	58.8	7	53.8	19	52.8
Fair	6	17.6	3	23.1	9	25.0
Poor	-	–	1	7.7	-	–
Total	34	100.0	13	100.0	36	100.0

As shown in Table 4.13, 71.4% of the students in the Agricultural Education Program had never changed their major while attending Lesotho Agricultural College. Similarly, 23.1% of the SEP students had never changed their major, and 87.2% of the SEP graduates had never changed their major. This finding indicates that students who chose the entrepreneurial curriculum in the SEP were satisfied with the program and the preparation it provided them beyond college.

Table 4.13: Respondents' choice to change majors while attending Lesotho Agricultural College.

Change of Major	Agricultural Education Students (n = 37)		SEP Students (n = 13)		SEP Graduates (n = 45)	
	Freq.	%	Freq.	%	Freq.	%
Changed major	10	28.6	10	76.9	5	12.8
Did not change major	25	71.4	3	23.1	34	87.2
Total	35	100.0	13	100.0	39	100.0

Respondents were asked to identify their career goals after graduating from Lesotho Agricultural College. As shown in Table 4.14, 45.9% of the Agricultural Education Program students said they would like to attend the National University of Lesotho after graduating from Lesotho Agricultural College. On the other hand, 53.8% of the SEP students and 42.2% of the SEP graduates said they would like to be self-employed after graduating from Lesotho Agricultural College. Further, 29.7%

of the Agricultural Education Program students, 7.7% of the SEP students, and 22.3% of the SEP graduates said they would like to be employed by the government after graduating. These findings support the fact that there are relatively few career options for graduates in Lesotho and that the choices students can make after graduation are limited.

Table 4.14: Respondents' occupational goals after graduating from Lesotho Agricultural College.

Occupational Goal	Agricultural Education Students		SEP Students		SEP Graduates	
	Freq.	%	Freq.	%	Freq.	%
Self-employed	5	13.5	7	53.8	19	42.2
Attend National University	17	45.9	4	30.8	6	13.3
Employed by government	11	29.7	1	7.7	10	22.3
Agricultural technician	1	2.7	1	7.7	9	20.0
Attend school outside of Lesotho	3	8.2	–	–	1	2.2
Total	37	100.0	13	100.0	45	100.0

Respondents were asked to identify the persons who influenced their choice of a college major. The person who had the strongest influence on the students' choice of a college major was their mother/female guardian (means = 2.36, 1.84,

and 1.89 for Agricultural Education Program students, SEP students, and SEP graduates, respectively) (see Table 4.15). The respondents' father/male guardian (means = 2.05, 1.69, and 2.02) and their high school teachers (means = 1.80, 1.76, and 1.84) were ranked second and third, respectively, in terms of having "some influence" when they decided on a college major. Other persons who seemed to have a marginal influence on the respondents' decision were their brothers/sisters (means = 1.80, 1.61, and 1.71) and friends (means = 1.55, 1.38, and 1.92).

Table 4.15: Persons who influenced respondents' choice of a college major (N = 87).

Person	Agricultural Education Students		SEP Students		SEP Graduates	
	Mean	SD	Mean	SD	Mean	SD
Mother/female guardian	2.36	.833	1.84	.987	1.89	.831
Father/male guardian	2.05	.802	1.69	.947	2.02	.877
High school teacher	1.80	.786	1.76	.926	1.84	.886
Brother/sister	1.80	.821	1.61	.767	1.71	.835
Friends	1.55	.808	1.38	.506	1.92	.784
High school	1.57	.850	1.50	.674	1.41	.649
Other relative	1.47	.654	1.30	.630	1.51	.712
High school counselor	1.41	.731	1.61	.869	1.30	.585
Administrator	1.31	.631	1.38	.650	1.14	.435
Minister/priest	1.20	.472	1.23	.599	1.17	.520

Scale: 3 = strong influence, 2 = some influence, 1 = no influence

The factor that was most important to respondents in choosing a college major was their personal interest (means = 2.66, 2.69, and 2.80 for Agricultural Education Program students, SEP students, and SEP graduates, respectively) (see Table 4.16). Other factors that were important were their personal abilities (means = 2.38, 2.50, and 2.45), career interest (means = 2.51, 2.30, and 2.33), ability to be creative (means = 2.44, 2.46, and 2.31), and ability to use special talent (means = 2.27, 2.53, and 2.25). These findings suggest that students' personal interest, which was influenced by their parents or guardians, was most important when they chose a college major.

Table 4.16: Factors influencing respondents' choice of a college major (N = 90).

Factor	Agricultural Education Students		SEP Students		SEP Graduates	
	Mean	SD	Mean	SD	Mean	SD
Personal interest	2.66	.632	2.69	.556	2.80	.459
Personal abilities	2.38	.644	2.50	.674	2.45	.638
Career interest	2.51	.781	2.30	.854	2.33	.700
Ability to be creative	2.44	.694	2.46	.660	2.31	.739
Ability to use special talent	2.27	.848	2.53	.660	2.25	.715
Money I can earn after graduation	2.20	.719	2.28	.723	2.23	.725
Available jobs after graduation	2.23	.831	2.15	.800	2.23	.751
Prestige of career within my major	1.94	.776	1.91	.900	1.75	.830
Ease of courses/program of study	1.94	.814	1.91	.900	1.72	.778
Scholarship in major	1.25	.603	1.53	.776	1.74	.909

Scale: 3 = very important, 2 = somewhat important, 1 = not important

As shown in Table 4.17, the person having the strongest influence on the respondents' choice of a future career was their mother or female guardian (means = 2.33, 2.00, and 2.02 for Agricultural Education Program students, SEP students, and SEP graduates, respectively). The father/male guardian (means = 1.88, 1.76, and 2.10) and brother/sister (means = 2.08, 1.76, and 1.70) were ranked second and third, respectively. Other persons having some influence on respondents' decisions about their future careers were their friends (means = 1.91, 1.69, and 1.84) and their high school teachers (means = 1.91, 1.23, and 1.84). These findings suggest that respondents' choice of a future career was influenced most by their parents or guardians, who served as role models.

Table 4.17: Persons who influenced respondents' career choice (N = 88).

Person	Agricultural Education Students		SEP Students		SEP Graduates	
	Mean	SD	Mean	SD	Mean	SD
Mother/female guardian	2.33	.861	2.00	1.00	2.02	.777
Father/male guardian	1.88	.900	1.76	1.01	2.10	.894
Brother/sister	2.08	.906	1.76	.832	1.70	.749
Friends	1.91	.817	1.69	.751	1.84	.744
High school teacher	1.91	.806	1.23	.559	1.84	.844
High school	1.14	.355	1.07	.277	1.18	.461
High school administrator	1.54	.741	1.41	.793	1.54	.700
Other relative	1.47	.559	1.07	.277	1.59	.685
High school counselor	1.38	.598	1.25	.621		.728
Minister/priest	1.25	.610	1.38	.767	1.32	.638

Scale: 3 = strong influence, 2 = some influence, 1 = no influence

Respondents' mother/female guardian had the strongest influence (means = 2.25, 2.07, and 2.09 for Agricultural Education Program students, SEP students, and SEP graduates, respectively) on their choice to attend Lesotho Agricultural College (see Table 4.18). The respondents' father/male guardian (means = 1.76, 1.76, and 2.12) and Lesotho Agricultural College graduates (means = 1.88, 1.61, and 2.05) had some influence on their decision to attend the college.

Table 4.18: Persons who influenced respondents' choice to attend Lesotho Agricultural College (N = 88).

Person	Agricultural Education Students		SEP Students		SEP Graduates	
	Mean	SD	Mean	SD	Mean	SD
Mother/female guardian	2.25	.852	2.07	.954	2.09	.735
Father/male guardian	1.76	.780	1.76	.926	2.12	.832
Lesotho Agricultural College graduate	1.88	.866	1.61	.767	2.05	.848
Brother/sister	1.94	.872	1.61	.650	1.92	.839
Friends	1.97	.890	1.53	.660	1.92	.848
High school teacher	1.88	.676	1.53	.887	1.74	.818
Lesotho Agricultural College lecturers	1.58	.857	1.61	.869	1.55	.808
High school counselor	1.60	.747	1.38	.647	1.43	.647
Other relative	1.45	.610	1.15	.554	1.59	.685
High school administrator	1.48	.781	1.23	.438	1.29	.617
Minister/priest	1.14	.359	1.23	.599	1.11	.398

Scale: 3 = strong influence, 2 = some influence, 1 = no influence

For the greatest proportion of students in the Agricultural Education Program (70%), their choice of a career in agriculture was established when they were in primary and secondary school (see Table 4.19). For 92.3% of the SEP students and 54.8% of the SEP graduates, their career in agriculture was established in primary and high school. The findings also indicated that the respondents became interested in a professional career in the field of agriculture after being exposed to such a career in primary school.

Table 4.19: Respondents' level of education when their choice of a career in agriculture was established.

Level of Education	Agricultural Education Students (N = 37)		SEP Students (n = 13)		SEP Graduates (n = 45)	
	Freq.	%	Freq.	%	Freq.	%
Primary school	9	45.0	12	92.3	12	28.6
Secondary school	5	25.0	1	7.7	7	16.6
High school	6	30.0	--	--	23	54.8
Total	20	100.0	13	100.0	42	100.0

SEP Students' and Graduates' Perceptions of the SEP

Research Question 3: What perceptions do SEP students and graduates have about the program?

Identifying the perceptions of the SEP students and graduates regarding the SEP was one of the major objectives in this study. Means and standard deviations were used to assess the perceptions held by the respondents. As shown in Table 4.20, SEP students and SEP graduates agreed to strongly agreed (means = 4.84 and 4.42, respectively) that entrepreneurial skills should be taught in the first year

to students who select the SEP. Respondents also agreed to strongly agreed that the technical skills (means = 4.00 and 4.37) taught in the SEP were helpful to them. These findings suggest that the idea of entrepreneurship as a career alternative is developing in Lesotho and at the college. Respondents indicated that perhaps they would be better prepared to continue their SEP projects into their respective communities after graduating. For some respondents, their third and final year was not enough time to develop the skills and confidence necessary to continue their projects after graduation.

Table 4.20: SEP students' and graduates' perceptions of the SEP (n = 58).

Perception of the SEP	SEP Students		SEP Graduates	
	Mean	SD	Mean	SD
Entrepreneurial skills should be taught the first year	4.84	.38	4.42	1.07
SEP technical skills are helpful	4.00	1.47	4.37	.91
Entrepreneurship was explained during orientation	3.53	1.19	4.00	1.22
Parents should attend the SEP orientation seminar	3.92	1.44	3.82	1.46
Classroom instruction prepared me for my SEP project	3.30	1.54	3.75	1.20
Inadequate communication between me and administration	3.15	1.72	3.06	1.54
Inadequate communication between me and supervisor	4.07	1.25	3.29	1.47
Access to telephone and transportation should be provided by college administration	3.46	1.80	2.88	1.67
Adequate communication between supervisor and administration	2.69	1.37	2.97	1.42
Lesotho Agricultural College administration supports the SEP	1.92	1.11	2.86	1.40

Scale: 5 = strongly agree, 4 = agree, 3 = not sure, 2 = disagree,
1 = strongly disagree

Respondents also agreed that the concept of entrepreneurship (means = 3.53 and 4.00 for SEP student and SEP graduates, respectively) was clearly explained to them during the orientation seminar, and they also agreed that their parents should attend the orientation seminar (means = 3.92 and 3.82). This finding is not surprising, considering that respondents reported that their parents had the most influence on their choice of a career and a college major. Respondents also agreed to strongly agreed that the communication between them and the college administrators was inadequate (means = 4.07 and 3.29), and they were not sure the administrators supported the SEP (means = 1.92 and 2.86). Respondents reported that they were "not sure" the level of communication between them and their project supervisors was inadequate (means = 3.15 and 3.06).

As shown in Table 4.21, respondents agreed to strongly agreed that an entrepreneur should be able to communicate effectively in a business environment (means = 4.92 and 4.73 for SEP students and SEP graduates, respectively), have good management skills (means = 4.84 and 4.82), have a good background in management (means = 4.84 and 4.64), and be able to make decisions in unusual situations (means = 4.46 and 4.42). Respondents also reported that they disagreed and were not sure whether they were satisfied with the facilities they used for their projects (means = 1.92 and 3.06).

As shown in Table 4.22, respondents agreed to strongly agreed that an entrepreneur should know how his or her competitors are faring in the market place (means = 4.38 and 4.68 for SEP students and SEP graduates, respectively) and

have an established market in which to conduct business (means = 4.30 and 4.44). Respondents disagreed with the statement that an entrepreneur does not have to cope with a changing environment (means = 1.69 and 1.93). Respondents also agreed that the quality of their product was comparable to that of their competitors (means = 4.38 and 4.17) and that marketing is complete when fresh or processed products have been sold to consumers (means = 4.23 and 4.37).

Table 4.21: SEP students' and graduates' perceptions of management in their projects (n = 48).

Management of Project	SEP Students		SEP Graduates	
	Mean	SD	Mean	SD
An entrepreneur should be able to communicate effectively in a business environment.	4.92	.56	4.73	.62
An entrepreneur should have good practical management skills.	4.84	.38	4.82	.53
An entrepreneur should have a good academic background in business management.	4.84	.38	4.64	.68
An entrepreneur has to make decisions in unusual situations in order to remain competitive.	4.46	.66	4.42	.66
The level of production for my SEP project was sufficient to realize a profit.	4.07	1.11	4.02	.94
An entrepreneur should be an experienced manager.	3.69	1.31	3.77	1.29
The courses that I have taken in management prepared me to become an entrepreneur.	3.58	1.37	3.46	1.50
I am completely satisfied with the management of my SEP project.	3.66	1.66	3.42	1.28
The facilities provided for SEP projects are satisfactory.	1.92	1.03	3.06	1.45

Scale: 5 = strongly agree, 4 = agree, 3 = not sure, 2 = disagree, 1 = strongly disagree

Table 4.22: SEP students' and graduates' perceptions of marketing in their projects (n = 58).

Marketing of Project	SEP Students		SEP Graduates	
	Mean	SD	Mean	SD
An entrepreneur should know how his/her competitors are faring in the market place.	4.38	.87	4.68	.60
Harvesting, sorting, packaging, and processing are all a part of marketing.	4.38	.87	4.44	.92
An entrepreneur should have access to a market.	4.30	.95	4.44	.76
Marketing is complete with the sale of fresh or processed products to consumers.	4.23	1.30	4.37	.65
The quality of my products was comparable to my competitors'.	4.38	.77	4.17	.91
An entrepreneur should identify a niche in the market in which he/she seeks to be competitive.	3.92	.86	4.23	.69
An entrepreneur does not have to cope with a changing market.	1.69	.85	1.93	1.26

Scale: 5 = strongly agree, 4 = agree, 3 = not sure, 2 = disagree, 1 = strongly disagree

Factors That Advanced the Development of Entrepreneurial Skills by SEP Students and SEP Graduates

Identifying the factors that advance and inhibit the development of entrepreneurial skills was an important objective in this study. Descriptive statistics were used to measure and group the identified factors, which are discussed below.

Research Question 4: What are the factors that have advanced SEP students' and graduates' development of entrepreneurial skills?

As shown in Table 4.23, 53.8% of the SEP students sold most of their products to individuals, whereas 71.1% of the SEP graduates sold their products to a local business or community.

Table 4.23: SEP students' and graduates' types of clientele.

Clientele	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Individuals	7	53.8	13	28.9
Local businesses	5	38.5	17	37.8
Community	1	7.7	15	33.4
Total	13	100.0	45	100.0

In Table 4.24, it can be seen that 84.6% of the SEP students and 82.2% of the SEP graduates arrived at a selling price for their product or livestock by calculating the production costs and expenses, which included rental fees for their projects, transportation cost, and cost of labor especially during harvesting. After considering all expenses, the entrepreneurs set a selling price that usually was higher than the market price, in order to make a profit.

As shown in Table 4.25, 76.9% of the SEP students and 71.1% of the SEP graduates did not preserve and store their project commodities. This finding indicates that there is a lack of storage facilities available at the college. However, consumers' preference for fresh meat and vegetables is important, and if the

commodities (especially vegetables) are stored or held too long, entrepreneurs will not be able to get competitive market prices for their goods.

Table 4.24: Respondents' methods for arriving at a selling price for their product.

Method	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Calculating production cost	11	84.6	37	82.2
What other producers sell for	2	15.4	8	17.8
Total	13	100.0	45	100.0

Table 4.25: Respondents' use of commodity preservation and storage facilities.

Use of Preservation and Storage Facilities	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Do not preserve and store	10	76.9	32	71.1
Preserve and store	3	23.1	13	28.8
Total	13	100.0	45	100.0

In Table 4.26, it can be seen that 46.2% of the SEP students and 64.4% of the SEP graduates extended credit to their customers. This finding is not surprising because extending credit is an accepted method of establishing a clientele in Lesotho.

Table 4.26: Respondents' use of extending credit.

Use of Credit	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Extended credit	6	46.2	29	64.4
Did not extend credit	7	53.8	16	35.6
Total	13	100.0	45	100.0

As shown in Table 4.27, 69.2% of the SEP students and 73.3% of the SEP graduates said they did not believe that extending credit was a marketing strategy. This response might have been a result of social factors in the respondents' experience, such as the family environment in which many entrepreneurs may work and the fear of losing clientele and other potential customers.

Table 4.27: Respondents' perceptions about extending credit as a marketing strategy.

Perception About Extending Credit	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Not a marketing strategy	9	69.2	33	73.3
A marketing strategy	4	30.8	12	73.3
Total	13	100.0	45	100.0

Only 30.8% of the SEP students and 25.6% of the graduates experienced a net loss from their projects (see Table 4.28). In addition to the technical skills taught in the SEP, emphasis is also placed on project management, which includes record-keeping and accounting skills. This finding is an indication that a large majority of respondents were managing their projects effectively.

Table 4.28: Respondents' experience of a net loss with their SEP project.

Experience of a Net Loss	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Did not experience a net loss	9	69.2	32	74.4
Experienced a net loss	4	30.8	11	25.6
Total	13	100.0	45	100.0

From Table 4.29, it can be seen that 46.1% of the SEP students and 51.1% of the SEP graduates thought the SEP should offer additional courses in marketing. Also, 53.9% of the SEP students and 48.9% of the SEP graduates thought additional course offerings in farm management would be helpful to them. These findings indicate that the respondents were seeking to improve their skills, understanding, and competence in applying management theory in a practical environment.

According to Table 4.30, 76.9% of the SEP students and 85.4% of the SEP graduates said they thought the best time to have an internship with an established entrepreneur was before they pursued their own projects. Such an opportunity

would allow interns to gain first-hand experience in observing management techniques, salesmanship, customer service, and decision-making skills. Interns would have an opportunity to observe and develop the skills necessary to start their own businesses. They also would have an opportunity to improve their projects or start their own businesses. An internship would also help participants better understand the details of the market in which they wished to start or continue their entrepreneurial careers.

Table 4.29: Respondents' suggestions of additional courses to improve the SEP.

Additional Course Suggestions	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Marketing	6	46.1	23	51.1
Farm management	7	53.9	22	48.9
Total	13	100.0	45	100.0

Table 4.30: Respondents' opinions concerning the best time to have an internship with an established entrepreneur.

Best Time for Internship	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Before SEP project	10	76.9	35	85.4
After SEP project	3	23.1	6	14.6
Total	13	100.0	45	100.0

Eighty percent of the SEP students and 97.6% of the SEP graduates indicated that it would be beneficial to them to have a locally established entrepreneur visit their projects to share experiences and provide them with important information on being self-employed (see Table 4.31). These findings indicated that the respondents thought they could improve their project-management skills if they were visited by a local entrepreneur. In answer to follow-up questions posed by the researcher, the respondents said they would like a local entrepreneur to make comments and suggestions for improving their projects, provide them with information about trends in the market, and share some of their problem-solving experiences.

Table 4.31: Respondents' opinions regarding the benefit of visits from a locally established entrepreneur.

Benefit of Visit	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Beneficial	8	80.0	40	97.6
Not beneficial	2	20.0	1	2.4
Total	13	100.0	45	100.0

As shown in Table 4.32, 84.6% of the SEP students and 97.7% of the SEP graduates indicated it would be helpful for them to visit other graduates' projects to learn from their experiences and share information that could improve their projects.

Table 4.32: Respondents' opinions regarding the helpfulness of visits from other SEP graduates.

Helpfulness of Visits From SEP Graduates	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Helpful	11	84.6	43	97.7
Not helpful	2	15.4	1	2.3
Total	13	100.0	44	100.0

According to Table 4.33, 84.4% of the SEP students and 93.2% of the SEP graduates shared information and experiences with other entrepreneurs. This is an indication that the entrepreneurs sought positive reinforcement from their peers. Respondents also reported that understanding how other entrepreneurs were faring provided incentive, especially for beginning entrepreneurs, to continue their projects after graduating from college. It also offered them an opportunity to establish partnerships and cooperatives.

Table 4.33: Respondents' sharing of experience with other entrepreneurs.

Sharing of Experience	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Shared experiences	11	84.6	41	93.2
Did not share experiences	2	15.4	3	6.8
Total	13	100.0	44	100.0

As shown in Table 4.34, 92.3% of the SEP students and 77.3% of the SEP graduates reported that the loan they had received from the college had been enough to start their projects.

Table 4.34: Respondents' opinions regarding the adequacy of the Trust Fund loan they had received to start their projects.

Adequacy of Trust Fund Loan	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Adequate	12	92.3	34	77.3
Inadequate	1	7.7	10	22.7
Total	13	100.0	44	100.0

In Table 4.35, it can be seen that 38.8% of the SEP students and 42.2% of the SEP graduates identified their agricultural production skills as a quality they possessed that would help them become successful entrepreneurs. Only 15.4% of the SEP students and 22.2% of the SEP graduates indicated that their management skill was an entrepreneurial quality they possessed. These findings indicated that the practical aspect of management needs to be reemphasized in the SEP and that a follow-up program is necessary to provided needed assistance to the graduates.

As seen in Table 36, 61.1% of the SEP students and 57.7% of the SEP graduates planned to finance their projects after graduation by securing a loan from the Agricultural Development Bank. An important part of the SEP is for project

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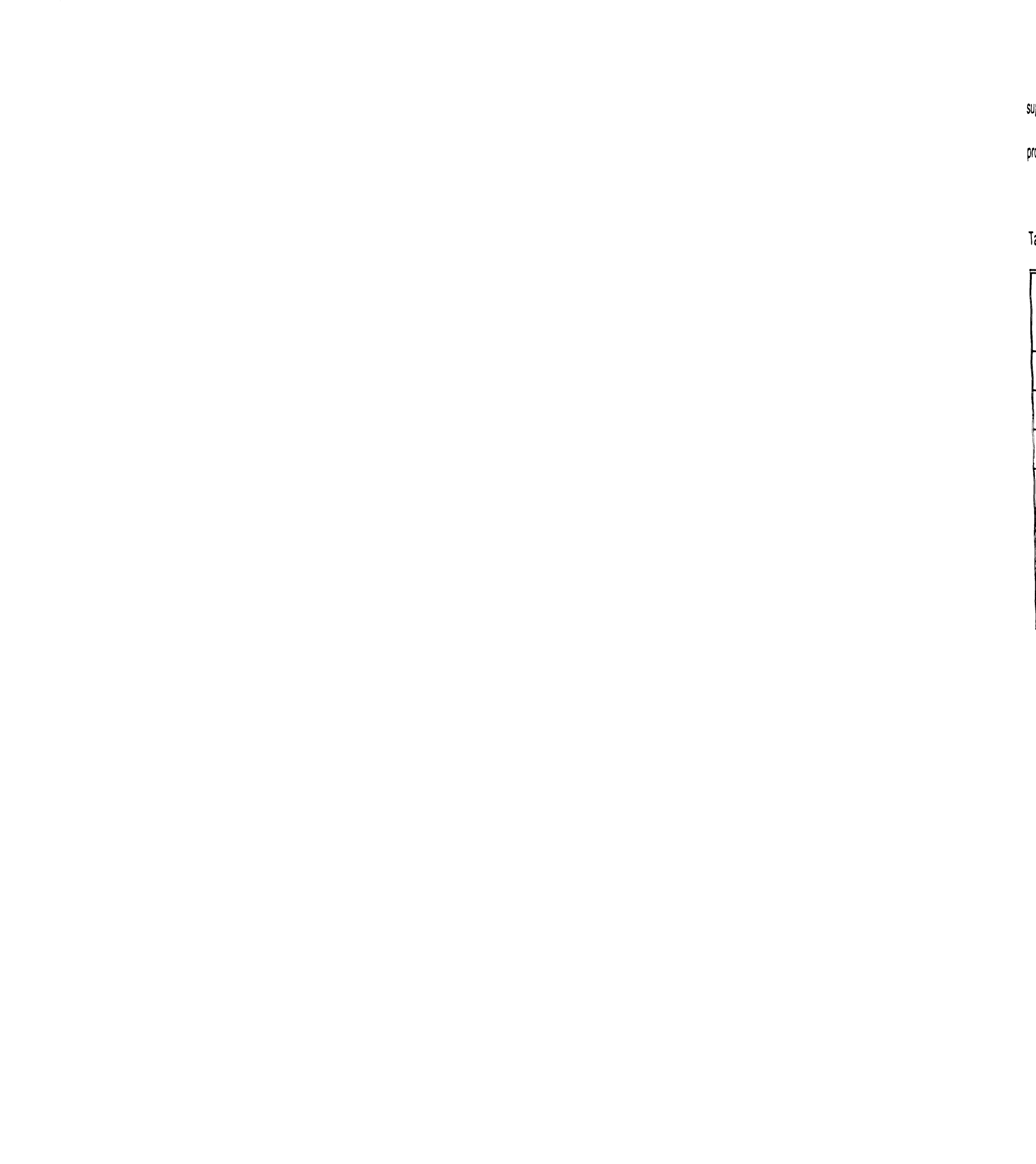

supervisors to assist graduates in drafting proposals to secure funds to start a new project or to continue an existing project.

Table 4.35: Entrepreneurial qualities identified by respondents.

Entrepreneurial Quality	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Agricultural production skills	5	38.4	19	42.2
Management skills	2	15.4	10	22.2
Communication skills	1	7.7	5	11.1
Determination	2	15.4	4	8.9
Opportunism	1	7.7	3	6.7
Confidence	2	15.4	4	8.9
Total	13	100.0	45	100.0

Table 4.36: Respondents' plans for financing their SEP projects after graduation.

Method of Financing	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Agricultural Development Bank	8	61.1	26	57.7
Support from parents and/or friends	4	30.8	7	15.6
Personal savings	1	7.7	12	26.7
Total	13	100.0	45	100.0

In Table 4.37 it can be seen that 76.9% of the SEP students and 79.1% of the SEP graduates said they would recommend the SEP to a friend or someone else. This finding suggests that the respondents, in general, were satisfied with the program and found entrepreneurship to be a good career alternative.

Table 4.37: Respondents' willingness to recommend the SEP to other students.

Willingness to Recommend the SEP to Others	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Would recommend the SEP	10	76.9	34	79.1
Would not recommend the SEP	3	23.1	9	20.9
Total	13	100.0	43	100.0

Factors That Inhibited the Development of Entrepreneurial Skills by the SEP Students and SEP Graduates

Research Question 5: What are the factors that have inhibited SEP students' and graduates' development of entrepreneurial skills?

Identifying the factors that inhibited the development of entrepreneurial skills of students in the SEP and SEP graduates was a main objective in this study. As shown in Table 4.38, 76.9% of the SEP students and 59.1% of the SEP graduates revealed that their level of production was not consistent with their customers' demands. This finding indicates that respondents may have lacked the capital to purchase inputs to increase production levels at the beginning of the planting season and, as a result, were unable to adequately supply their customers. Furthermore,

the graduates reported that they had to hire additional labor during the harvesting period, and it was difficult to consistently supply their customers on time.

Table 4.38: Consistency of respondents' production level with consumer demand.

Consistency of Production Level	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Inconsistent	10	76.9	26	59.1
Consistent	3	23.1	18	40.9
Total	13	100.0	44	100.0

As shown in Table 4.39, 38.5% of the SEP students and 37.8% of the SEP graduates purchased their inputs after each batch of produce or livestock had been sold. In addition, 61.5% of the SEP students and 62.2% of the SEP graduates purchased inputs at the beginning of the project. These findings indicate that some of the entrepreneurs did not have enough capital to purchase all of their needed inputs at the beginning of the project and had to purchase them when they could. By purchasing all or most of the inputs at the beginning of the project, entrepreneurs could avoid paying higher prices for those inputs.

In Table 4.40 it can be seen that 69.2% of the SEP students and 71.4% of the SEP graduates experienced a problem with selling their products at the college. In addition, some respondents reported that credit they had extended to some customers had not been repaid as promised. Some entrepreneurs used income generated from the project for things that did not pertain to the project, and others were unable to consistently supply customers with bulk orders. These findings

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indicate that extending credit does not always benefit the entrepreneur, especially when the entrepreneur has to purchase needed inputs or has other expenses. Also, a lack of experience and commitment to the purpose of entrepreneurship can lead to a misuse of profits or monies generated from the project.

Table 4.39: Respondents' schedule for purchasing inputs.

Purchasing Schedule	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
At the beginning of the project	8	61.5	28	62.2
After each batch sold	5	38.5	17	37.8
Total	13	100.0	45	100.0

Table 4.40: Respondents' difficulty in selling their products at the college.

Difficulty Selling Products	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Had a problem	9	69.2	30	71.4
Never had a problem	4	30.8	12	28.2
Total	13	100.0	42	100.0

As shown in Table 4.41, 92.3% of the SEP students and 56.8% of the SEP graduates believed that their projects were not safe at the college. The SEP students and SEP graduates said there was a need to have fences and adequate lighting on campus to protect the SEP projects from recurring thefts.

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Table 4.41: Respondents' evaluations of the safety of their SEP projects at the college.

Safety of Project	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Not safe	23	92.3	25	56.8
Safe	1	7.7	19	43.2
Total	13	100.0	44	100.0

As seen in Table 4.42, 69.2% of the SEP students and 50% of the SEP graduates said their projects required additional labor. Most of the additional labor needed for these projects was performed manually. Hiring additional labor during the harvesting period, especially for vegetable crops, is costly for the entrepreneurs. However, SEP students and SEP graduates reported that they received assistance from other SEP students, family members, and friends.

Table 4.42: Respondents' need for additional labor in their projects.

Need for Additional Labor	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Needed additional labor	9	69.2	22	50.0
Did not need additional labor	4	30.8	22	50.0
Total	13	100.0	44	100.0

As shown in Table 4.43, 69.2% of the SEP students and 55.6% of the SEP graduates were satisfied with the quality of working conditions for their projects.

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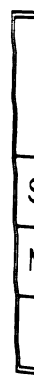

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Resources at the college are limited, and students tend to make the best use of the resources available. However, respondents reported that there is a need to improve the facilities that are used for students' projects.

Table 4.43: Respondents' satisfaction with the quality of working conditions for their projects.

Satisfaction With Quality of Working Conditions	SEP Students		SEP Graduates	
	Freq.	%	Freq.	%
Satisfied	9	69.2	25	55.6
Not satisfied	4	30.7	20	44.4
Total	13	100.0	45	100.0

Entrepreneurial Experience and Skills of Administrators and Lecturers at Lesotho Agricultural College

In their questionnaire, the administrators and lecturers were asked to provide written comments about their entrepreneurial experience and skills. They also were asked their opinions of various aspects of the SEP. Each of the seven open-ended items is stated below, followed by a summary of the administrators' and lecturers' responses to the question.

Question 1: Describe your entrepreneurial experience and skills.

Administrators: Three (75%) of the administrators reported that their entrepreneurial experience in terms of academic background and training in business was limited (see Table 4.44). However, they said they occasionally attended workshops and seminars on small-business management and small-scale enterprises. The administrators revealed that their level of competence in

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entrepreneurial skills stemmed from their practical experience. One of them owned and operated a small- to medium-scale vegetable plot at his residence to supplement his income. Produce from the plot was sold at the college farm.

Lecturers: All of the lecturers reported that they had entrepreneurial experience and competence in entrepreneurial skills (see Table 4.44). Many of them had been raised on commercial family farms where they planted, harvested, and sold vegetables and livestock. Some of the lecturers revealed that they were employed in an agriculture-related business, from which they gained valuable experience.

Table 4.44: Entrepreneurial experience of administrators and lecturers at Lesotho Agricultural College.

Entrepreneurial Experience	Administrators		Lecturers	
	Freq.	%	Freq.	%
Limited experience	3	75.0	–	–
Some experience	1	25.0	12	100.0
Total	4	100.0	12	100.0

Question 2: What type of support (if any) does the SEP need to sustain itself?

Administrators: The administrators said the SEP has the potential to sustain itself with more commitment from the lecturers, especially those who have practical experience and business skills to assist the young entrepreneurs (see Table 4.45). The program does not need external support; it should be able at this point to "stand on its own."

Lecturers: All of the lecturers indicated that the continuation of the SEP by the current administration is evidence that it can sustain itself without external support (see Table 4.45). The interest generated from loans to SEP students from the Trust Fund has made the program viable. However, the lecturers reported that there is a need for commitment from experienced administrators and lecturers to determine the future direction of the SEP. There is also a need to accept the program as a learning method at the college.

Table 4.45: Administrators' and lecturers' opinions of the type of support, if any, the SEP needs to sustain itself.

Type of Support	Administrators		Lecturers	
	Freq.	%	Freq.	%
Needs support	--	--	--	--
Does not need support	4	100.0	12	100.0
Total	4	100.0	12	100.0

Question 3: What is your opinion of the students who have selected the SEP as a career alternative?

Administrators: The administrators reported that, in the past, three types of students were interested in participating in the SEP: (1) those who were generally interested, (2) those who wanted to earn money beyond college, and (3) those who thought they would not be admitted to the National University of Lesotho (see Table 4.46). By the completion of the program, however, many students who chose the SEP wanted to continue the idea of self-employment.

Lecturers. The lecturers reported that many of the students who participated in the SEP demonstrated that they had the motivation, confidence, and practical skills to become self-employed (see Table 4.46). Some students, on the other hand, needed support and guidance as they experienced the challenges associated with entrepreneurship. Some of the SEP graduates learned that being able to repay the Trust Fund loan while attending college did not necessarily mean they could become successful entrepreneurs.

Table 4.46: Administrators' and lecturers' opinions of SEP students.

Opinion of SEP Students	Administrators		Lecturers	
	Freq.	%	Freq.	%
Positive	4	100.0	12	100.0
Negative	–	--	--	–
Total	4	100.0	12	100.0

Question 4: Do you believe that the original goals and objectives of the SEP are being met? Why?

Administrators: The administrators thought the intended goals of the SEP were being carried out; however, the extent to which the goals and objectives were being achieved was moderate (see Table 4.47). Respondents indicated that financial support from the Ministry of Agriculture is needed to make structural improvements to SEP project sites and to encourage SEP supervisors to attend small-business seminars and workshops focused on entrepreneurship development.

Lecturers: The lecturers thought the goals and objectives of the SEP were being met (see Table 4.47). Many of the graduates were self-employed, some were

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employed in the agricultural private sector, and a number of the earlier graduates were employed by the Ministry of Agriculture.

Table 4.47: Administrators' and lecturers' beliefs about whether the original goals and objectives of the SEP were being met.

Opinions Regarding Whether SEP Goals and Objectives Are Being Met	Administrators		Lecturers	
	Freq.	%	Freq.	%
Moderately	4	100.0	–	–
Completely	–	–	12	100.0
Total	4	100.0	12	100.0

Question 5: In your opinion, what are the strengths and weaknesses of the SEP?

Administrators: According to the administrators, the SEP's strength lies in its ability to expose students to good career alternatives (see Table 4.48). Also, the program affords students the opportunity to develop practical business skills while they are attending college. Some students may not be as confident as their peers when they enter college. However, many students have demonstrated that, during the course of the SEP, they develop business skills that will be useful to them when they graduate. Some of them are now employed in the agricultural private sector.

Two (50%) of the administrators stated that the major weakness of the SEP is that many graduates have reported having difficulty securing loans from the Agricultural Development Bank once they graduate from the college. Another weakness, indicated by two (50%) of the administrators, is that the college has not

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been able to successfully implement a follow-up program for graduates to help them continue with their projects or start new ones.

Table 4.48: Strengths and weaknesses of the SEP, according to administrators and lecturers.

Strengths of the SEP Program	Administrators		Lecturers	
	Freq.	%	Freq.	%
Good career alternative	3	75.0	–	–
Develop practical business skills	–	–	12	100.0
Leads to self-employment	1	25.0	–	–
Total	4	100.0	12	100.0
Weaknesses of the SEP Program	**Administrators**		**Lecturers**	
	Freq.	%	Freq.	%
Difficult to secure loans from the Agricultural Development Bank	2	50.0	–	–
Need to follow up on graduates	2	50.0	–	–
Need to improve SEP project sites	–	–	12	100.0
Total	4	100.0	12	100.0

Lecturers: According to the lecturers, a strength of the SEP is that it provides hands-on experience while students have an opportunity to select a self-employment career path in the field of agriculture (see Table 4.48). A major component in the SEP is for students to repay their Trust Fund loans before graduating. In only a few

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instances have students been unable to repay their loans, which is an indication that they understand the importance of conducting business as entrepreneurs. Another strength of the SEP reported by the lecturers is that the program improves the overall image of the college and that many students become interested in the program before their third and final year.

The lecturers indicated that major weaknesses of the SEP are the need for transportation, fencing at project sites, and security. In addition, students sometimes are faced with the hardship of losing customers because they are not able to fill their orders consistently.

Question 6: What changes (if any) do you believe are needed to improve the SEP?

Administrators: The college administrators said the following changes are needed to improve the SEP:

1. The college must improve facilities for all existing projects.
2. Administrators should meet regularly with SEP supervisors to discuss students' progress.

Lecturers: According to the lecturers, the following changes are needed to improve the SEP:

1. Introduce a one-month training course for new SEP students.
2. Implement a follow-up program for graduates.
3. The SEP curriculum should offer an intermediate accounting course.
4. Students should take business courses in the first year.
5. Farm equipment, i.e., a tractor, is needed and should be assigned for SEP project use.

6. The college should consistently stay in contact with SEP graduates for up to 10 years.

Question 7: What is your overall perception of the SEP?

Administrators: According to the administrators, the SEP has been an asset to the college since its inception. It has provided students with career options that did not exist before. Graduates of the program have indicated to college personnel that the program was helpful to them in many ways. Some of the graduates who did not become entrepreneurs have been able to obtain managerial positions in various agriculture-related businesses.

Lecturers: The lecturers noted that entrepreneurship is a unique concept at Lesotho Agricultural College, and it will take some time before the SEP can become operational as it was in the past with the technically trained staff from USAID. The program has benefited many students, and it has provided some of them with experience and a respectable level of success as medium-scale commercial farmers in their respective communities.

A summary of the study findings, conclusions drawn from the findings, and recommendations for further research are presented in Chapter V.

CHAPTER V

SUMMARY, DISCUSSION OF THE FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This chapter contains a summary of the study, a discussion of the research findings, and conclusions drawn from the findings. In addition, recommendations are made for improving the SEP, as well as for future research. The LAC administrators' and lecturers' opinions of the SEP are included as the findings and conclusions are considered.

The researcher's primary purpose in this study was to provide useful information to the government of Lesotho (particularly the Ministry of Agriculture), administrators and lecturers at Lesotho Agricultural College, and donor agencies that encourage and support entrepreneurial development programs.

This was a descriptive study. Six research questions were posed to guide the collection of data for the study. The targeted populations were students enrolled in the Agricultural Education Program, students in the SEP, SEP graduates, and administrators and lecturers at Lesotho Agricultural College. A census was taken of two respondent groups. One group, which comprised three parts, included 95 participants (37 students in the Agricultural Education Program, 13 SEP students,

and 45 SEP graduates), and the other comprised 16 participants (4 administrators and 12 lecturers at Lesotho Agricultural College).

Two questionnaires were developed for this study. The first questionnaire was completed by students in the Agricultural Education Program, SEP students, and SEP graduates. The instrument was administered to the students in their classrooms, and it was mailed to the SEP graduates. Descriptive statistics such as frequencies and means were used in reporting the data from this instrument. The second questionnaire was completed by the administrators and lecturers. The instrument was hand delivered to the administrators and lecturers individually in their offices at the college; these respondents returned the completed surveys to the researcher. The findings from the data analyses are discussed in the following section.

Discussion of the Findings

In this section, each research question is restated, followed by a discussion of the findings pertaining to that question.

Research Question 1

> What are the sociodemographic characteristics of students in the Agricultural Education Program, the SEP, and SEP graduates, including their agricultural background and experience?

Respondents' answers to questionnaire items concerning their sociodemographic characteristics, as well as their agricultural background and

experience, were used in answering this research question. Frequencies and percentages were used in reporting the findings.

Agricultural Education Program students. The mean age of students in the Agricultural Education Program was 24.3 years. Sixty-two percent of them were males and 37.8% were females. Seventy-eight percent were single and 21.7% were married. Seventy percent had lived most of their lives in a village or camp town. These findings indicate that most of the students who matriculated in the Agricultural Education Program came from a predominantly rural background. Ninety-four percent had been on a general academic track in high school, whereas only 2.7% had been on a college-prep academic track. Thirteen percent had no background in agriculture, whereas 83.8% had been employed in agriculture, born and raised on a farm, employed as farm workers, and/or had taken agricultural courses in high school. Sixteen (43.2%) of the 37 respondents had been born and raised on a farm. The average family farm size was 2.4 hectares. The family farm type was mixed (75%), raising both vegetables and livestock. Sixty-eight percent of these students reported that farming was their family's major source of income.

SEP students. The mean age of the SEP students was 26 years. Sixty-nine percent of these students were males and 30.8% were females. Seventy-six percent were single and 23.1% were married. Forty-two percent of the SEP students had lived most of their lives in a village or district town. All of them had been on a general academic track in high school. These findings suggest that the students who selected the SEP option had not been business oriented before attending

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Lesotho Agricultural College. Twenty-three percent had no background in agriculture, whereas 76.9% had been employed in agribusiness, born and raised on a farm, employed as farm workers, or had taken agricultural courses in high school. Six of the 13 respondents (46.1%) had been born and raised on a farm. The mean family farm size was 2.1 hectares. The family farm type was mixed (72.2%). Fifty percent of the SEP students reported that farming was not their family's major source of income.

SEP graduates. The mean age of the SEP graduates was 28.4 years. Seventy-nine percent of them were males and 20.9% were females. Sixty-six percent were single and 33.3% were married. Fifty-three percent had been raised in a village or camp town, and 46.7% had lived in Maseru or a district town. These findings suggest that students who sought an entrepreneurial career and enrolled in the SEP came from urbanized areas where there was comparatively more economic activity than in the villages and camp towns. Eighty-four percent of the SEP graduates had been on a general academic track in high school, 11% had been on a college-prep academic track, and 4.4% had been on a business-related academic track in high school. Only 2% reported that they had no background in agriculture, whereas 98% had been employed in agriculture, born and raised on a farm, employed as farm workers, and/or had taken agricultural courses in high school before attending Lesotho Agricultural College.

Proportionately, the highest level of education achieved by all three respondent groups' parents was primary level for the father/male guardian (41.5%

for Agricultural Education Program students, 41.7% for SEP students, and 44.5% for SEP graduates) and the mother/female guardian (37.8%, 35.7%, and 57.1%). Many of the respondents' parents had achieved secondary-, certificate-, and diploma-level education. Some of the parents/guardians had bachelor's, master's, and Ph.D. degrees. With regard to parents'/guardians' occupations, 24.6% of the Agricultural Education Program students', 46.1% of the SEP students', and 24.4% of the SEP graduates' parents/guardians were employed in the South African mines; 18.9% of the Agricultural Education Program students' parents/guardians were teachers, 16.2% were unemployed, and 13.5% were employed in agriculture; 15.4% of the SEP students' parents/guardians were farmers, and another 15.4% were employed by the government; 28.8% of the SEP graduates' parents/guardians were farmers and 17.8% were employed as civil servants by the Lesotho government, and 11.2% were employed in the private sector.

Research Question 2

> What are the factors that influenced the career choices of students enrolled in the Agricultural Education Program, the SEP, and SEP graduates?

The procedure used in answering this question was twofold. First, for items regarding respondents' academic performance in agriculture-related subjects in high school and their choice to change their major while attending Lesotho Agricultural College, responses were recorded and reported categorically in percentages. Respondents' career goals after graduating from college also were presented in percentages. Second, respondents were asked questions to determine the persons

and factors that had influenced their career choice. In responding to these items, they used two Likert-type scales. One scale had values of 3 = strong influence, 2 = some influence, and 1 = no influence. The other had 3 = very important, 2 = somewhat important, and 1 = not important. Means and standard deviations on the two scales were used in reporting the findings.

Agricultural Education Program students. Of the students in the Agricultural Education Program, 82.3% rated their academic performance in agriculture-related subjects in high school as "excellent" or "good." Seventy-one percent had not changed majors while attending Lesotho Agricultural College.

SEP students. Of the SEP students, 69.2% rated their academic performance in agriculture-related subjects in high school as "excellent" or "good." Seventy-six percent had changed their majors to the SEP while attending Lesotho Agricultural College.

SEP graduates. Seventy-five percent of the SEP graduates rated their academic performance in agriculture-related subjects in high school as "good" or "excellent." Eighty-seven percent had not changed their majors while attending Lesotho Agricultural College.

The respondents' high ratings of their academic performance in agriculture-related subjects in high school were a result of their background in agriculture before attending Lesotho Agricultural College.

The occupational goals of all three respondent groups after graduating from Lesotho Agricultural College were to be self-employed (13.5% of the Agricultural

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Education Program students, 53.8% of the SEP students, and 42.2% of the SEP graduates), attend the National University of Lesotho (45.9%, 30.8%, and 13.3%), be employed by the government as a civil servant (29.7%, 7.7%, and 22.3%), work as an agricultural technician (2.7%, 7.7%, and 20.0%), or attend school outside of Lesotho (8.2% of the Agricultural Education Program students and 2.2% of the SEP graduates). These findings reflect the types of career opportunities available to and choices made by most college graduates in Lesotho.

It was found that the mother/female guardian (means = 2.36 for the Agricultural Education Program students, 1.84 for the SEP students, and 1.89 for the SSEP graduates), followed by the father/male guardian (means = 2.05, 1.69, and 2.02) and a high school teacher (means = 1.80, 1.76, and 1.84), had the strongest influence on the respondents' choice of a college major. The factor that was most important in respondents' choice of a college major was their personal interest in the subject (means = 2.66, 2.69, and 2.80). Other factors that were somewhat important to respondents' choice of a college major were their personal abilities (means = 2.38, 2.50, and 2.45), career interests (means = 2.51, 2.30, and 2.33), ability to be creative (means = 2.44, 2.46, and 2.31), and ability to use a special talent (means = 2.27, 2.53, and 2.25). It was found that the mother/female guardian (means = 2.33, 2.00, and 2.02), followed by the father/male guardian (means = 1.88, 1.76, and 2.10) and brother/sister (means = 2.08, 1.76, and 1.70), had some influence on respondents' career choice. Other influential persons were friends (means = 1.91, 1.69, and 1.84) and a high school teacher (means = 1.91, 1.23, and 1.84).

The person who had the strongest influence on respondents' choice to attend Lesotho Agricultural College was their mother/female guardian (means = 2.25, 2.07, and 2.09 for Agricultural Education Program Students, SEP students, and SEP graduates, respectively), followed by their father/male guardian (means = 1.76, 1.76, and 2.12) and Lesotho Agricultural College graduates (means = 1.88, 1.61, and 2.05). These findings indicate that respondents' parents and guardians played an active role in their decision making and served as their role models. Respondents reported that their choice of a career in agriculture had been established during secondary and high school, after being exposed to the field of agriculture in primary school. Practical skills in agriculture are taught at the primary level in most public schools in Lesotho; however, careers in agriculture usually are emphasized at the secondary level.

Research Question 3

What perceptions do SEP students and graduates have about the program?

The third research question sought the perceptions of SEP students and graduates regarding the entrepreneurial skills taught in the SEP. Respondents used a 5-point Likert-type scale (5 = strongly agree, 4 = agree, 3 = not sure, 2 = disagree, and 1 = strongly disagree) in answering questions about the SEP in three categories: (a) general perceptions, (b) management, and (c) marketing. Means and standard deviations were used to answer this research question.

Respondents agreed (means = 4.84 and 4.42 for SEP students and SEP graduates, respectively) that learning entrepreneurial skills should begin the first

year for students interested in the SEP. This finding indicates that, for most students, being exposed to the SEP in their third and final year of college did not give them enough time to fully develop the skills necessary to continue their projects once they graduated. This finding highlights the importance for the college to modify the SEP curriculum so that students who are interested in the program can be better prepared for the practical phase, which begins in their third year. Respondents agreed to strongly agreed that the technical skills they learned in the SEP were helpful to them (means = 4.00 and 4.37), that the concept of entrepreneurship was clearly explained during the orientation seminar (means = 3.53 and 4.00), and that parents or guardians should attend the SEP orientation seminar (means = 3.92 and 3.82). This last finding is not surprising, considering that parents/guardians had the strongest influence on respondents' choice of college major, career choice, and choice to attend Lesotho Agricultural College. If parents/guardians were invited to attend the orientation seminar, they could assist students with establishing a clientele, solving project-related problems, and identifying and securing capital to continue their entrepreneurial activities once they graduated from college.

Respondents agreed that the communication between them and the administration (means = 4.07 and 3.29 for SEP students and SEP graduates, respectively) and between them and their supervisors (means = 3.15 and 3.06) was inadequate. This finding suggests that the administrators and project supervisors should meet with SEP students on a regular basis and not just when a problem arises. Also, the administrators could demonstrate their commitment to the SEP by

assisting students and their project supervisors whenever possible. Respondents were "not sure" the communication between their supervisors and the administration was adequate (means = 2.69 and 2.97); they also were not sure the administration supported the program (means = 1.92 and 2.81). This finding is a result of the administrative and staff changes that have occurred at Lesotho Agricultural College. Also, some of the SEP project supervisors are more familiar than others with the goals and objectives of the program. Scheduled meetings between and among the administrators and supervisors could bridge the gap in communication that exists between them.

Respondents agreed that the college administration should provide access to a telephone and transportation to conduct business (means = 3.46 and 2.88 for SEP students and SEP graduates, respectively). This finding indicates that there is a need for the administration to improve the business environment at the college so that students' enterprise projects can be fully operational.

With regard to management, respondents agreed to strongly agreed that an entrepreneur should be able to do the following: communicate effectively in a business environment (means = 4.92 and 4.73 for SEP students and SEP graduates, respectively), possess good management skills (means = 4.84 and 4.82), have a good academic background in management (means = 4.84 and 4.64), and make decisions in unusual situations to be competitive (means = 4.84 and 4.64). These findings indicate that respondents had a good understanding of the entrepreneurship management concepts taught in the SEP and were able to apply

these concepts after they graduated. Respondents also agreed that their level of production was sufficient to realize a profit (means = 4.07 and 4.02), that an entrepreneur should be an experienced manager (means = 3.69 and 3.77), and that taking courses in management was not enough preparation for becoming an entrepreneur (means = 3.58 and 3.46). These findings indicate that the theoretical and practical aspects of entrepreneurial skills taught at the college are useful. Respondents were satisfied with the management of their SEP projects (means = 3.66 and 3.42). On the other hand, they were not sure of the satisfaction they had with their project facilities (means = 1.92 and 3.06). This last finding is a result of the repairs that are needed for SEP projects.

With regard to marketing, respondents agreed to strongly agreed that an entrepreneur should know how his or her competitors are faring in the marketplace (means = 4.38 and 4.68 for SEP students and SEP graduates, respectively); know that harvesting, sorting, packaging, and processing are all part of marketing (means = 4.38 and 4.44); have access to a market (means = 4.30 and 4.44); understand that marketing is completed with the sale of fresh or processed products to consumers (means = 4.23 and 4.37); know that his or her projects should be comparable in quality to those of competitors (means = 4.38 and 4.17); and realize that an entrepreneur has to be able to identify a niche in the market in which he or she is competing (means = 3.92 and 4.23). Respondents disagreed that an entrepreneur does not have to cope with a changing environment (means = 1.69 and 1.93). This last finding indicates that the respondents had a good understanding of

marketing in Lesotho and were aware that a portion of what they produced would be sold on the residual market because some consumers prefer to purchase commodities produced in neighboring South Africa.

Research Question 4

What are the factors that have advanced SEP students' and graduates' development of entrepreneurial skills?

The fourth research question sought to identify the factors that advanced SEP students' and graduates' development of entrepreneurial skills. Each of the items pertaining to this question was followed by an open-ended question. Responses to the open-ended questions provided the researcher with a breadth of information on the subjects of interest. Some of the responses reflected the entrepreneurial skills taught in the SEP, and others were comments or suggestions about things the respondents thought could advance their entrepreneurial skills. All responses (including those to the open-ended questions) were recorded and categorized, and from this the factors that advanced entrepreneurial development in the SEP were determined. Frequencies and percentages were used in answering this research question.

Three types of clienteles (individuals, local businesses, and communities) purchased respondents' products; 53% of the SEP students sold their products to individuals, and 71.1% of the SEP graduates sold their products to local businesses or communities. These findings indicate that SEP students' level of production was lower than that of SEP graduates. The entrepreneurs' level of production

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determined the type of clientele they would serve during and after college. A lower level of production resulted in some SEP students' selling their products to individuals who lived near the college; these individuals did not purchase in bulk, and their method of payment usually was credit. In contrast, only 28.9% of the SEP graduates sold their products to individuals. This finding suggests that the graduates, particularly at the time they were attending Lesotho Agricultural College, were able to establish clienteles and sell their products to wider segments of the market. Thus, they were able to provide products to street vendors in the informal agricultural markets, as well as to the local business community (i.e., hotels and restaurants).

Eighty-four percent of the SEP students and 82.2% of the graduates arrived at a selling price for their products by calculating their production costs and project-related expenses, such as transportation, labor, and maintenance. Seventy-six percent of the SEP students and 71.1% of the graduates did not preserve and store their products. Forty-six percent of the SEP students and 64.4% of the graduates extended credit to their customers. Extending credit is a highly recognized form of payment and method of conducting business in Lesotho. Sixty percent of the SEP students and 73.3% of the graduates viewed extending credit as a marketing strategy. Only 30% of the SEP students and 25.6% of the graduates experienced a net loss with their projects. This last finding indicates that respondents had good record-keeping skills. Respondents said that additional courses in marketing and farm management were needed to improve the SEP curriculum. Seventy-six

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percent of the SEP students and 85.4% of the graduates indicated that the best time to have an internship with an established entrepreneur would be before they started their own projects. Eighty percent of the SEP students and 97.6% of the graduates thought they would benefit from visits from locally established entrepreneurs. Eighty-four percent of the SEP students and 97.7% of the graduates thought it would be helpful to have visits from other SEP graduates to share information and experiences about their projects and the entrepreneurship development process. Ninety-two percent of the SEP students and 77.3% of the graduates thought that the Trust Fund Loan they received at Lesotho Agricultural College to start their projects had been adequate.

Respondents identified several entrepreneurial qualities they possessed. They cited their practical agricultural production skills, management and communication skills, determination to be successful entrepreneurs, optimism about the concept and rewards of entrepreneurship, and confidence that they could succeed. Respondents chose three possible sources of funds to finance their SEP projects after graduation: (a) personal savings, (b) support (in the form of a loan) from their parents or friends, and (c) the Agricultural Development Bank. Sixty-one percent of the SEP students and 57.7% of the graduates expected their projects to be funded by the Agricultural Development Bank after they graduated from Lesotho Agricultural College. SEP graduates reported having difficulty securing loans from the Agricultural Development Bank once they had graduated, primarily because they lacked the 100% collateral to cover the amount of the loan requested. This finding

suggests that the agreement made by the college administration and bank manager (since the first SEP class graduated in 1987) to support entrepreneurial initiatives needs to be renegotiated. Seventy-six percent of the SEP students and 79.1% of the graduates said they would recommend the SEP to other students as a career alternative. This finding indicates that the students who participated in the program benefited from the experience of entrepreneurship while attending Lesotho Agricultural College and after they had graduated from the college.

Research Question 5

> What are the factors that have inhibited SEP students' and graduates' development of entrepreneurial skills?

The fifth research question sought to identify the factors that inhibited SEP students' and graduates' development of entrepreneurial skills. The same procedure that was used to answer the fourth research question was used to answer this question. All responses (including the open-ended ones) were recorded, categorized, and used in determining the factors that inhibited entrepreneurial development in the SEP. Frequencies and percentages were used in answering this research question.

Seventy-six percent of the SEP students and 59.1% of the graduates reported that their level of production was not consistent with the demands of their customers. Inadequate capital, inability to purchase needed inputs, and the need to hire additional labor were cited as the main reasons why entrepreneurs were unable to supply their customers adequately. This finding is surprising because the

respondents reported that the Trust Fund Loan they received from Lesotho Agricultural College had been adequate to start their projects. When applying for a Trust Fund Loan, students in the SEP should consider the need for funds to cover unforeseen problems that can arise during the course of venturing and funds for additional labor, particularly during harvesting. Sixty-one percent of the SEP students and 62.5% of the graduates purchased their needed inputs at the beginning of the project. This finding suggests that respondents may have been unable to determine the actual amount of capital needed before starting their projects and were therefore subjected, at times, to purchasing inputs after each batch sold. Sixty-nine percent of the SEP students and 71.4% of the graduates reported that they "had a problem" with selling their project or livestock. The most commonly cited problems were bad-debt credit customers and misuse of monies earned from their projects. This finding suggests that students in the SEP need to be more selective of the individuals to whom they extend credit and view their projects as a business and not as a job in which they can pay themselves.

With regard to SEP projects being safe at the college, 92.3% of the SEP students and 56.8% of the graduates indicated that their projects were "not safe." This respondents reported that there was a need for structural and physical improvements to project sites, such as fencing and lighting, particularly for livestock projects. Sixty-nine percent of the SEP students and 50% of the graduates reported that their projects required additional laborers other than themselves. This additional labor was required during the harvesting period. In many instances, respondents

had to hire supplementary laborers when their friends and relatives were not available. Sixty-nine percent of the SEP students and 55.6% of the graduates reported that they were satisfied with the facilities they used for their projects. Respondents who were not satisfied reported that there was a need for the college to improve these facilities.

Research Question 6

> What are the entrepreneurial experience and skills held by the administrators and lecturers at Lesotho Agricultural College?

The sixth and last research question sought to identify Lesotho Agricultural College administrators' and lecturers' entrepreneurial experience and skills. The respondents also were asked their opinions of various aspects of the SEP in open-ended items on their questionnaire. Responses to all items by both respondent groups (administrators and lecturers) were coded, categorized, and recorded to answer this research question. The following is a summary and discussion of the comments and major ideas expressed by members of each group.

When respondents were asked to describe their entrepreneurial experience and skills, three (75%) of the administrators reported that their entrepreneurial experience was limited in terms of academic preparation. However, one (25%) reported that his entrepreneurial skills were good, primarily because of the practical experience of growing and selling vegetables from the garden at home to supplement his income. The lecturers indicated that they had entrepreneurial experience and skills. Nine lecturers reported that they had been raised on small-

scale commercial farms. Three revealed that they had been employed in agriculture and had gained considerable experience as a result.

When respondents were asked to comment on the type of support (if any) the SEP needed to sustain itself, the administrators suggested that commitment from the lecturers was needed because of their entrepreneurship experience and knowledge of the SEP. The lecturers indicated that the SEP needed the support of the administration "to fully accept the program as a learning method."

Respondents were asked to give their opinions of students who selected the SEP as a career alternative. The administrators indicated that not all of the students who selected the SEP had the same goals and objectives. However, they reported that, once a student goes through the program's orientation seminar and has his or her own project, "the idea of self-employment becomes more clear and a reality they can embrace." The lecturers reported that the majority of the students who selected the SEP had the potential to be entrepreneurs, but they needed motivation and guidance on the idea of entrepreneurship once they were in the program. Overall, the respondents had a positive opinion of the students who selected the SEP program.

Respondents were asked whether they believed the goals and objectives of the SEP were being met. The administrators indicated that the goals and objectives were being carried out, but the extent of achievement was moderate. The administrators thought that financial support from the Ministry of Agriculture and staff training were needed to improve the program. The lecturers indicated that the goals

and objectives of the SEP were being met. They commented that the program had graduated many students who were currently self-employed, employed in the private sector, or employed by the Ministry of Agriculture.

Respondents were asked to identify the strengths and weaknesses of the SEP. The administrators indicated that the strength of the program lies in the opportunity it affords students. "Entrepreneurship development in the SEP provides students with a career alternative that was not being offered by the college, and many of the graduates have benefited from the program," one respondent stated. The administrators also reported that the major weakness of the SEP is the lack of support and commitment from the Agricultural Development Bank to provide loans so that SEP graduates can continue existing projects to start new business ventures.

The lecturers indicated that the practical experience students gain, which leads to self-employment, is the main strength of the SEP. They also reported that the SEP improves the image of the college. A weakness of the SEP, according to the lecturers, is the need for transportation assigned to SEP students.

Respondents were asked what changes (if any) were needed to improve the SEP. The administrators suggested that the college improve the physical condition of the facilities used for SEP projects and meet regularly with SEP supervisors on students' projects. The lecturers indicated that the SEP could be improved if the college implemented a training course for new SEP students, continued its follow-up program with SEP graduates, introduced additional business-related courses into the SEP curriculum, and stayed in contact with graduates.

Respondents were asked to give their overall perceptions of the SEP. The administrators reported that the college had benefited immensely from having the SEP. The college now has a career option that was not available to students in the past. The lecturers reported that the SEP was a good program. Yet they also indicated that the program was not fully operational as it had been in the recent past. They mentioned, however, that the SEP had succeeded in providing self-employment opportunities for many of its graduates.

Conclusions

The main focus of this study was to identify the factors that influenced entrepreneurial development in the SEP. The research findings were helpful in arriving at the following overall conclusions regarding the extent to which the program goals and objectives were being met. (See Appendix E for the current status of SEP graduates from 1987 through 1995.)

1. Students in the Agricultural Education Program, SEP students, and SEP graduates, as identified groups, had background experience in agriculture before attending Lesotho Agricultural College. Some of them had been raised on farms, had been employed in agriculture, and/or had taken agricultural courses in high school. This was a good indication that students who selected the SEP were well oriented to the field of agriculture and were suitable candidates to become entrepreneurs.

2. The most important factor in respondents' choice of a college major was their personal interest and abilities in agriculture, which stemmed primarily from

their agricultural background and experience. The most influential persons in respondents' choice of college major, career choice, and choice to attend Lesotho Agricultural College were their parents/guardians and high school teachers.

3. Entrepreneurial skills should be taught the first year for students who are interested in self-employment initiatives. Students who selected the SEP in their third and final year at Lesotho Agricultural College believed that they needed more time to develop their entrepreneurial skills and confidence. For many graduates, securing funds to continue or start a new project had been difficult and discouraging. Some of the SEP graduates had decided to continue with their education by attending the National University of Lesotho.

4. The communication between and among SEP supervisors and administrators was found to be inadequate. Not all SEP supervisors had received staff training in entrepreneurial education. Some of the supervisors were much less involved than others in advising students and implementing the goals and objectives of the program.

5. SEP students and graduates believed that extending credit and good marketing and management skills were important factors that advanced their development of entrepreneurial skills. They believed that these skills had been most useful to them when they were establishing their niche in the marketplace as entrepreneurs.

6. The factors most inhibiting the development of entrepreneurial skills identified by SEP students and graduates were inability to consistently supply their

customers, bad-debt customers, and being denied loans from the Agricultural Development Bank. Respondents believed that if they were able to secure funds from the Agricultural Development Bank they would be able to better plan their future as entrepreneurs.

7. SEP students and graduates believed that the career alternative of entrepreneurial development was a good choice for them. The SEP curriculum provided most graduates with an opportunity to become self-employed or to assume managerial positions in the private sector, with a nongovernment organization, or in the Ministry of Agriculture.

8. The administrators had limited exposure to entrepreneurial education before the SEP. However, because of their practical experience (selling vegetables from their home gardens), their entrepreneurial skills were good. The lecturers had extensive entrepreneurial experience and skills. All of the lecturers had at least a bachelor's degree, and a few of them had Master of Science degrees in specialized areas of production agriculture.

9. The SEP was started in 1986 and, since 1991, has been able to continue without external support. The SEP still provides opportunities for students to develop skills and practical experience in areas that will enable them to become gainfully self-employed. These facts demonstrate Lesotho Agricultural College's commitment to the SEP.

Recommendations for Practice

The following six recommendations were most readily recognized from the findings and conclusions of this study. These recommendations for practice could be viewed as viable options to improve the SEP at Lesotho Agricultural College.

1. The college administrators should encourage local and regional high schools that offer agricultural courses to have their high school seniors visit with SEP students at Lesotho Agricultural College. Exposing high school students to SEP projects and the concept of entrepreneurship can serve as a feeder program for the college.

2. Lesotho Agricultural College administrators should include parents and guardians in the college's effort to attract and recruit candidates for the SEP. Such a move is likely to have a positive effect, particularly because in this study it was found that parents and guardians had the greatest influence on the career choices of students.

3. The SEP curriculum should require students to have summer internships with established local entrepreneurs, to share and learn from their experiences. If an internship could be incorporated into the SEP curriculum, by the time students begin their third and final year and are undertaking their own entrepreneurial project, they will have had exposure to the idea of being self-employed and will have had some entrepreneurial experience.

4. College administrators and SEP supervisors should use follow-up and job-placement measures with those graduates who seek employment in the private

sector, with a nongovernment organization, or in the Ministry of Agriculture. Although self-employment is one of the main objectives of the SEP, another important aspect of the program is for graduates to be employed in the agricultural industry.

5. Efforts to improve communication between administrators and lecturers are strongly encouraged. A few ideas for improving communications between these two groups are suggested. One suggestion is to form committees whose objective would be to strengthen the interaction between the groups. Another idea would be to have joint planning sessions on such topics as (a) the college's commitment to the SEP, (b) problems faced by SEP students and graduates, (c) staff training that includes seminars and workshops to improve SEP supervisors' business skills, (d) local and regional conditions that may affect the implementation of SEP goals and objectives, and (e) other high-priority matters faced by the college.

6. Measures should be taken by the college administration and SEP coordinator (collaboratively) to reestablish the SEP's relationship with the Lesotho Agricultural Development Bank to support SEP graduates' entrepreneurial initiatives.

Recommendations for Future Research

1. There is a growing body of literature on entrepreneurship research. Early research in the field of entrepreneurship was undertaken to determine what personality characteristics distinguished entrepreneurs from nonentrepreneurs. More recently, researchers have proposed that entrepreneurship research should focus on the process of entrepreneurship rather than on characteristics of

entrepreneurs. Thus, entrepreneurship is a multidimensional process, and to identify entrepreneurial traits is just one component of understanding that process. What is now being discussed in the literature is the need for researchers to develop conceptual frameworks that link and integrate the characteristics of entrepreneurs, the socioeconomic environment in which they seek to fulfill their needs, individuals and factors that influence their motivation or desire to go into business, and the methods used by organizations, institutions, and programs that facilitate the process of venture creation.

2. Insights could be gained in future research on entrepreneurship, particularly when the focus of the research is on individuals who are developing interest in and skills to become entrepreneurs at academic institutions or training programs in developing countries. In many of these settings, the sample sizes often are small, and the data analysis usually is limited to descriptive statistics. Nevertheless, a topic for future research would be to study the high schools from which students who decided to participate in an entrepreneurship development program had graduated. This would help determine whether there is a pattern or trend for individuals who graduate from particular high schools to be oriented toward business-related careers or self-employment. This type of research could provide the foundation for inferential and predictive research models.

3. Another area for future research is observational and longitudinal studies. Entrepreneurship is a process rather than a state of being, and an entrepreneurial venture begins with unique events. To determine the nature of those

events would require field studies of the events. Although a field study requires more time than other types of research, it would provide the richness that comes with understanding the importance of entrepreneurship to the economy and hence to society as a whole.

Reflections

I gained a great deal of knowledge and experience from having the opportunity to live, teach, and conduct research at Lesotho Agricultural College. Through reflection, I thought it would be a good idea to comment on how the overall experience, and particularly the research on the SEP, could be viewed as a "model program" in the context of the current educational system. I also wanted to discuss and validate some thoughts and observations on the perceptions of the respondents in terms of their feelings, concerns, issues, and challenges, as well as how the research could influence certain aspects of human and economic development in Lesotho.

The SEP self-employment concept has provided good career alternatives to many students who would otherwise have been employed or underemployed after graduating from Lesotho Agricultural College. The SEP is a model program in the sense that, until recently, it was the only program of its kind in the southern African region. In recent years, the University of Swaziland, the University of Malawi, and the University of Botswana have changed or are interested in improving their agricultural education curriculum to one that has an entrepreneurial focus. In February 1995, Lesotho Agricultural College hosted visitors from the Faculties of

Agriculture at the University of Swaziland and the University of Botswana. The primary reason for their visit was to obtain information about the SEP. The visitors met with Lesotho Agricultural College administrators and lecturers. However, they were particularly interested in visiting SEP project sites and talking with current SEP students. The visitors asked numerous questions regarding the methods and techniques SEP students used for producing, harvesting, transporting, selling, managing, marketing, budgeting, and so on. It was during this period that I realized that the SEP concept that had been started at Lesotho Agricultural College in 1986 was being viewed as a model program that perhaps could be replicated (with modifications) in other countries within the southern African region.

I was fortunate to be able to visit Lesotho Agricultural College and meet with some of the students, administrators, and lecturers over a two-week period in 1994. During that visit, I found the people at the college to be warm and helpful. One noteworthy observation was that the administrators wanted to have the SEP reviewed and were seeking empirical data that would let them know how the program was faring so that they could discuss ways to improve the program. The administrators provided me with much support. In fact, they liked the idea that the research would include them, along with the lecturers, students in Agricultural Education, SEP students, and SEP graduates. It was not unusual to discuss aspects of the SEP during tea break and lunchtime with the administrators and lecturers. However, they assured me that such discussions in no way biased their opinions about the purpose, goals, and objectives of the research.

Some respondents, however, raised a few concerns about the study. The greatest concern was voiced by the administrators, who expressed the need to have more business-oriented staff whose appointment would be focused entirely on the SEP. The most major concern raised by the lecturers, students, and SEP graduates came in the form of a basic question: What effect will the results of the study have on the program? Since 1991, external financial support for the SEP has been discontinued. Toward the end of the study, there was great concern about identifying financial support for the program. The administrators had viewed securing financial support for the SEP as critically challenging. Efforts to foster financial support from the government of Lesotho (Ministry of Agriculture) remained an important issue to be resolved.

An important question I raised is: How can the SEP and the scope the research contribute to human and economic development in Lesotho? Human development generally has been defined as "a process of enlarging people's choices." Income is one of many choices, but not the only one. Human development has been said to be concerned with the distribution of wealth, not with its creation. Education is an important component of the human-development equation, and it is directly concerned with creativity. The SEP at Lesotho Agricultural College, through experiential learning, promotes human development in Lesotho. That became evident when the government of Lesotho and Lesotho Agricultural College made a change in the curriculum that has expanded the career choices of its graduates. The most successful academic programs are the ones that accurately target the group that needs to be assisted. The beneficiaries of the SEP

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actively took responsibilities for their own projects' vitality and progress, and in turn they were able to create employment opportunities for themselves.

Human development is not limited to any specific sector. It does not focus on social issues at the expense of economic issues. It stresses the need to develop human capabilities; thus, human development and economic development are closely connected. In many developing countries, there has been concern about how to deal with employment creation and income distribution. High rates of unemployment pose major hardships for many of these countries. Although the potential for employment creation in the public sector can be increased, financing such initiatives has been problematic for many governments. Also critical to this situation is the fact that much of the Lesotho work force is employed three to nine months of the year in South Africa. And for many decades the population has survived fundamentally from migrant labor remittances, which has resulted in a labor shortage in Lesotho. Also, with the recent political changes that have occurred in South Africa, finding employment there will become increasingly difficult. There is evidence, however, that practical agricultural training will be needed in the future in Lesotho. One of the ways to address this problem is to provide opportunities and training needed to invest in small-scale enterprises and entrepreneurial activity. The Lesotho government and Lesotho Agricultural College have responded to this overwhelming situation by encouraging small-enterprise development in the SEP, which can improve the distribution of income and thus contribute to overall economic development.

APPENDICES

QUEST

APPENDIX A

QUESTIONNAIRE FOR AGRICULTURAL EDUCATION PROGRAM STUDENTS, SEP STUDENTS, AND SEP GRADUATES

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Dear Participant:

I am a doctoral candidate in the Department of Agricultural and Extension Education at Michigan State University, USA. Dr. Frank Bobbitt, my major professor, and I are conducting a study whose purpose is to identify the factors that influence entrepreneurial development in the Student Enterprise Program (SEP) at Lesotho Agricultural College (LAC) and to determine the extent to which the program's original goals and objectives are being achieved. Our interest is in the way students prepare themselves for careers as entrepreneurs and employees in the agricultural private sector. The study will be descriptive.

We are also planning on conducting interviews with the administrators and lecturers to obtain their views of the Program as a result of their participation.

As a participant you have the following rights:

* Your response in this study is voluntary and is based on your willingness to participate.

* You can refuse to participate or withdraw at any time.

* You will be asked to respond to Likert-scale-type and open-ended questions in the form of a survey questionnaire for up to one hour.

* All responses on the questionnaire for the study will be confidential and will not be linked to any individual.

* When the information is compiled and reported, findings will be reported for the group of participants and not for any one individual.

Thank you for agreeing to participate in the study. Should you have any comments or questions, please contact me, John Graham, directly at Michigan State University, 409C Agriculture Hall, East Lansing, MI 48824, USA. Phone: (517) 355-6580, Fax: (517) 353-4981. E-mail: GrahamJ2@student.MSU.EDU.

I understand the research and procedure as described above and voluntarily agree to participate by completing and returning this questionnaire.

_____	_____	_____
Name (Print)	Signature	Date

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PART ONE
BACKGROUND INFORMATION

1. Your sex (circle number): 1. Male 2. Female

2. Your age: _____ (years at last birthday)

3. What is your marital status? (circle number)

   1. Single 2. Married 3. Divorced

4. Where have you lived most of your life? (circle number and identify specific location)

   1. Maseru
   2. District Town_____
   3. Village_____
   4. Other_____

5. What is the highest level of education achieved by each of your parents? (place appropriate number of choice next to column)

   Father___ Mother___ Female Guardian___ Male Guardian___

   1. Primary
   2. Secondary
   3. College certificate
   4. College diploma
   5. B.Sc. degree
   6. M.Sc. degree
   7. Ph.D. degree
   8. Other (please specify)_____

6. What is your father's/male guardian's current occupation?

   _____

7. What is your mother's/female guardian's current occupation?

   _____

8. What was your course of study in high school? (circle number)

   1. General
   2. Business
   3. College Prep (e.g., LESPEC)
   4. Technical
   5. Other_____

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9. What activities did you participate in during high school?

_____

10. Which of the following best describes your background in agriculture prior to college? (circle one number)

1. I have no background in agriculture prior to college.
2. I was employed in an agriculture-related business.
3. I was born and raised on a farm.
4. I was employed as a farm worker.
5. I took agriculture courses in high school.
6. Other (please describe)_____

If you chose item 3 in question 10, please respond to questions 11, 12, and 13.

11. What is the size of your family's farm? _____ hectares

12. What type of farm is it? (please circle)

1. Livestock 2. Vegetable crops 3. Mixed farming

13. Is farming your family's major source of income? (please circle)

1. Yes 2. No

If NO, what occupation supplements the family income?

_____

14. What academic program are you currently matriculating in at Lesotho Agriculture College? (please circle)

1. Agricultural Education
2. Student Enterprise Program
3. Home Economics Education

PART TWO
CAREER CHOICE

15. What is your current class standing at LAC? (circle one)

    1. First year 2. Second year 3. Third year 4. Graduated

16. How would you rate your academic performance in agriculture-related subjects since high school? (circle one)

    1. Excellent 2. Good 3. Fair 4. Poor

17. Have you changed your major since entering college? (circle number)

    1. Yes 2. No

    If NO, please respond to questions 17a and 17b.

    17a. What major did you change from?_____

    17b. Please state your reasons for changing your major.

    _____

    _____

18. What is your occupational goal after graduation?

    _____

    _____

19. When deciding on a college major, how much influence did each of the following persons have on your choice? (circle the appropriate number for each of the items listed)

    3. Strong influence 2. Some influence 1. No influence

Mother/female guardian	3	2	1
Father/male guardian	3	2	1
Brother/sister	3	2	1
Other relative	3	2	1
Friends	3	2	1
High school counselor	3	2	1
High school teacher	3	2	1
Administrator	3	2	1
Minister/priest	3	2	1
Other	3	2	1

20. How impo
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3. Very ir

Personal
Personal
Career in
Scholarsh
Available
Ability to
Money I c
Prestige
Ease of c
Past work

21. In choosi
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number f

3. Strong

Mother/fe
Father/m
Brother/s
Other rel
Friends
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High sch
Administ
Minister/
Other

20. How important were each of the following factors to you in choosing a college major? (circle one answer for each statement)

	3. Very important	2. Somewhat important	3. Not important
Personal interest	3	2	1
Personal abilities and skills	3	2	1
Career interest	3	2	1
Scholarship in major	3	2	1
Available jobs after graduation	3	2	1
Ability to use special talent	3	2	1
Money I can earn after graduation	3	2	1
Prestige of career within my major	3	2	1
Ease of course/program of study	3	2	1
Past work experience (please describe)	3	2	1

21. In choosing your future career, please indicate how much influence each of the following persons had on your choice by circling the appropriate number for each item listed.

	3. Strong influence	2. Some influence	1. No influence
Mother/female guardian	3	2	1
Father/male guardian	3	2	1
Brother/sister	3	2	1
Other relative	3	2	1
Friends	3	2	1
High school counselor	3	2	1
High school teacher	3	2	1
Administrator	3	2	1
Minister/priest	3	2	1
Other	3	2	1

22. In choosing Lesotho Agricultural College, please indicate how much influence each of the following persons had on your choice by circling the appropriate number for each item listed.

3. Strong influence 2. Some influence 1. No influence

Mother/female guardian	3	2	1
Father/male guardian	3	2	1
Brother/sister	3	2	1
Other relative	3	2	1
Friends	3	2	1
LAC alumnus/graduate	3	2	1
LAC lecturer	3	2	1
High school counselor	3	2	1
High school teacher	3	2	1
High school administrator	3	2	1
Minister/priest	3	2	1
Other	3	2	1

23. During what level of your education was a career in agriculture first established? (circle the answer)

1. Primary (class 1-7)
2. Secondary (form 1-3)
3. High school (form 4-5)

24. If you had the opportunity to go into another profession other than agriculture, would you consider it? (circle your choice)

1. Yes 2. No

25. Please explain the reason for your choice in question 24.

_____

_____

_____

PART THREE
THE STUDENT ENTERPRISE PROGRAM

This part of the survey is divided into four sections. Please indicate your response by using the following scale, which corresponds to your perception of the components taught in the SEP. Respond by circling the appropriate number.

STRONGLY AGREE = 5 AGREE = 4 NOT SURE = 3 DISAGREE = 2
STRONGLY DISAGREE = 1

SECTION ONE: ASSESSMENT OF PROGRAM

26. The concept of entrepreneurship was clearly explained to me during the SEP orientation seminar. 1 2 3 4 5

27. Parents should be invited to attend the SEP orientation seminar. 1 2 3 4 5

28. The classroom instruction that I received during my first two years at LAC prepared me for my SEP project. 1 2 3 4 5

29. The technical skills that I learned for my SEP project are useful. 1 2 3 4 5

30. The skills necessary to become an entrepreneur at LAC should begin the first academic year. 1 2 3 4 5

31. The level of communication between me and my SEP supervisor concerning my project is inadequate. 1 2 3 4 5

32. The level of communication between me and the college administrative staff concerning the SEP is inadequate. 1 2 3 4 5

33. The level of communication between my supervisor and the college administration regarding the SEP is adequate. 1 2 3 4 5

34. Access to transportation and use of a telephone to conduct business should be provided by the college administrative staff. 1 2 3 4 5

35. I believe the college administrative staff strongly supports the SEP. 1 2 3 4 5

SECTION TWO: MANAGEMENT

36. The facilities provided for SEP projects are satisfactory.
1 2 3 4 5

37. An entrepreneur should have good practical management skills.
1 2 3 4 5

38. The level of production for my SEP project was sufficient to realize a profit.
1 2 3 4 5

39. I am completely satisfied with the management of my SEP project.
1 2 3 4 5

40. The courses that I have taken in management prepared me to become an entrepreneur. 1 2 3 4 5

41. An entrepreneur should have a good academic background in business management. 1 2 3 4 5

42. An entrepreneur should be able to communicate effectively in a business environment. 1 2 3 4 5

43. An entrepreneur should be an experienced manager. 1 2 3 4 5

44. An entrepreneur has to make decisions in unusual situations in order to remain competitive. 1 2 3 4 5

SECTION THREE: MARKETING

45. An entrepreneur should have an established market in which to conduct business. 1 2 3 4 5

46. The quality of product was comparable to my competitors' in the market.
1 2 3 4 5

47. An entrepreneur should know how his or her competitors are faring in the marketplace. 1 2 3 4 5

48. An entrepreneur does not have to cope with a changing market.
1 2 3 4 5

49. An entrepreneur should identify a niche in the market, to be competitive.
1 2 3 4 5

50. Sorting, packing, and processing are all about marketing.
1 2 3 4 5

51. Marketing is complete with the sale of fresh or processed products of consumers. 1 2 3 4 5

SECTION FOUR: This section of the survey seeks to identify the factors that advance and inhibit the development of entrepreneurial skills in the Student Enterprise Program. Please respond in writing to the following open-ended questions.

52. Describe your average customer.

53. Which of the following groups are you most comfortable selling your product or livestock to: individuals, local business, or a village community? (circle answer and explain the reason for your choice)

54. Does your project or business require irrigation? (circle answer)
Yes No

55. How often do you purchase inputs?

56. Do you feel your project is safe at the college? (circle answer)
Yes No

57. Describe how you arrive at a selling price for your product or livestock.

58. Do you preserve and story any of your product or livestock? (circle answer) Yes No

59. Describe the quality of the facility that you used for your project.

60. Did your project require labor other than yourself? (circle answer)
Yes No
Did you budget for additional labor cost? Yes No

61. Do you extend credit to your customers? (circle answer) Yes No
If yes, How has extending credit benefited or hindered your business?

62. Do you believe extending credit is a marketing strategy? (circle answer and explain the reason for your choice) Yes No

63. Explain the benefits of developing a market survey for your business.

64. Have you ever experienced a net loss in your business? (circle answer and describe the situation) Yes No

65. As an entrepreneur, what courses do you think would be helpful to you in your business?

66. When do you think is the best time to have an internship with a locally established entrepreneur, Before or After you begin your SEP project? (circle and explain your answer)

67. Do you think it will be helpful to visit with other SEP graduates (who are self-employed) to learn and share experiences? (circle answer and explain the reason for your choice) Yes No

68. Do you think it will benefit you to have a locally established entrepreneur visit your project and share information, and provide insight about the industry that you are working in? (circle answer and explain the reason for your choice) Yes No

69. Was your Trust Fund Loan enough to start your project? (circle answer) Yes No

70. What qualities do you possess that you think will help you become a successful entrepreneur?

71. How do (did) you plan to finance your project after graduation?

72. Would you recommend the SEP to a friend, family member, or anyone else? (circle answer and explain the reason for your choice) Yes No

APPENDIX B

QUESTIONNAIRE FOR LESOTHO AGRICULTURAL COLLEGE

ADMINISTRATORS AND LECTURERS

ADMINISTRATORS' AND LECTURERS' QUESTIONNAIRE

FOR THE STUDY ON

Factors That Influence Entrepreneurial Development
in the Student Enterprise Program at
Lesotho Agricultural College

Please check appropriate category:

____ Administrator
____ Lecturer

Dear Participant:

I am a doctoral candidate in the Department of Agricultural and Extension Education at Michigan State University, USA. Dr. Frank Bobbitt, my major professor, and I are conducting a study whose purpose is to identify the factors that influence entrepreneurial development in the Student Enterprise Program (SEP) and to determine the extent to which the program's original goals and objectives are being achieved. Our interest is in the way students prepare themselves for careers as entrepreneurs and employment in the agricultural private sector.

This portion of the study is designed to obtain the views held by the college's administrators and lecturers as a result of your participation and support in the SEP.

I will take notes for later use about our findings, which will be forwarded to the college in the form of a doctoral dissertation. **Everything you say will be confidential.**

As a participant you have the following rights:

* You will be asked to respond to open-ended questions for up to one hour.

* Responding is voluntary; you can refuse to participate or otherwise withdraw at any time.

* You will receive a written transcript of the questionnaire and a summary of the research findings.

* You will be invited to provide reactions to the written transcript.

* The questionnaire will be strictly confidential through the use of codes.

* Excerpts of the questionnaire will be used in sections of the final research report.

* Your name will not be associated with any excerpts or included in any report.

Thank you for agreeing to participate in the study. Should you have any comments or questions after returning the form, you may contact me, John L. Graham, directly at Michigan State University, 409C Agriculture Hall, East Lansing, Michigan 48824, USA. Phone: (517) 355-6580, Fax: (517) 353-4981, E-mail: Grahamj2@student.MSU.EDU.

I understand the research and procedures as described above and voluntarily agree to participate in the study.

_____	_____	_____
Name (Print)	Signature	Date

QUESTIONS

Note: If you need more space to respond to any of the following items, you may use additional sheets and submit them along with the questionnaire.

1. Describe your entrepreneurial experience and level of competence in entrepreneurial skills.

2. What type of support (if any) does the SEP need to sustain itself?

3. What is your opinion of the students who selected the SEP as a career alternative?

4. Do you believe that the original goals and objectives of the SEP are being met? Why or why not?

5. In your opinion, what are the strengths and weaknesses of the SEP?

6. What changes (if any) do you believe are needed to improve the SEP?

7. What is your overall perception of the SEP?

APPENDIX C

LETTERS FROM LESOTHO AGRICULTURAL COLLEGE AND THE MINISTRY OF AGRICULTURE RESEARCH DIVISION IN SUPPORT OF THE STUDY

Michigan State University
Lansing, Michigan
U.S.A.

R. Williams, Extension Department Head
Lesotho Agricultural College
Private Bag #A-4
Maseru 100, Lesotho
Southern Africa

13 June 1994

Dear Sir/Madam:

This letter is written in support of John Graham who is interested in conducting research at Lesotho Agricultural College (LAC) for his dissertation. The proposal that we have reviewed for his research can have a great impact toward sustaining the Student Enterprise Program (SEP) at LAC. I believe that the research will also impact the development of agriculture in Lesotho.

As the Extension Department Head, I will personally give John all the assistance he needs toward meeting his research goals and objectives. I have already taken steps to facilitate John's project by organizing meetings with S.E.P. students, as well as coordinating meetings with the faculty of agriculture at LAC and the National University of Lesotho (NUL).

These preliminary contacts will contribute a great deal to John's work, particularly when he returns to Lesotho in January to carry out the in-depth research of the S.E.P. for his dissertation.

I can assure you that we will do all that we can do to make John feel comfortable during his tenure here at LAC.

Sincerely Yours,

R. Williams

Remaketse Williams

LESOTHO
AGRICULTURAL COLLEGE
1994 -06- 16
MINISTRY AGRICULTURE
PRIVATE BAG A4 MASERU

Lesotho Agricultural College
Private Bag A4
MASERU - 100
LESOTHO

13th June, 1994

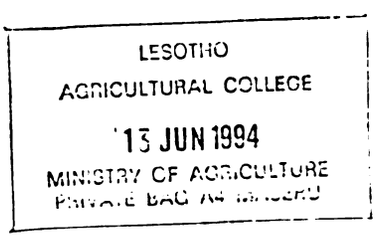
Michigan State University
Graduate School
Department of Agricultural Extension
and Education

We are pleased to inform you that **MR. JOHN GRAHAM** your student will be conducting part of his Ph.D. Research on Student Enterprise Project and Extension Education at our College from January 1995.

Mr. Graham will not only be conducting his research but he has been kind enough to agree to spare his valuable time in conducting lessons to our students on Agric Extension and Agric Business for which we are very grateful indeed.

We hope and believe that his presence in our College will be an impetus to our students to work harder and aim higher. We are also quite certain that his presence will be the beginning of a healthy and mutually advantageous relationship to our two institutions.

Dr. STEVE L. RALITS'OELE
PRINCIPAL - LAC



LESOTHO

15TH JUNE 1994.

The Faculty of Agricultural Education,
Michigan State University,
Lansing,
Michigan.

Dear Sir/Madam,

This is to certify that your student Mr. John Graham visited with us here at Lesotho Agricultural Research. We had very fruitful discussions that immediately proved to have potential of paying dividends for the both of us.

I am, therefore, happy to assure your faculty, indeed the whole of your University, our willingness to assist him with his work should you be willing to let him come back here for his research. I even promised him that my students at IEMS will also assist him.

Very Faithfully Yours,

MUSI 'MATLI(Ph.D)
Director - Agric. Research Dept.
Ministry of Agriculture,
P.O. Box 829,
Maseru.
Lesotho.

APPENDIX D

LETTER OF APPROVAL FROM THE UNIVERSITY COMMITTEE ON RESEARCH INVOLVING HUMAN SUBJECTS

MICHIGAN STATE
UNIVERSITY

June 5, 1995

TO: John Graham
409C Agriculture Hall

RE: IRB#: 95-162
TITLE: AN ANALYSIS OF THE F(X) THAT INFLUENCE THE SUSTAINABILITY OF AN ENTREPRENEURIAL EDUCATION PROGRAM AT LESOTHO AGRICULTURAL COLLEGE
REVISION REQUESTED: N/A
CATEGORY: 1-C
APPROVAL DATE: 06/05/95

The University Committee on Research Involving Human Subjects'(UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revision listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/ CHANGES: Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)432-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:kaa/lcp

cc: William Bobbitt

OFFICE OF
RESEARCH AND GRADUATE STUDIES

University Committee on Research Involving Human Subjects (UCRIHS)

Michigan State University
232 Administration Building
East Lansing, Michigan
48824-1046

517/355-2180
FAX 517/432-1171

APPENDIX E

LIST OF SEP GRADUATES FROM 1987 THROUGH 1995

AND THEIR CURRENT STATUS

Tab

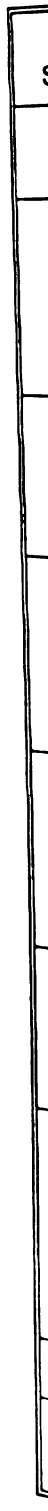


Table E.1: SEP graduates from 1987 through 1995 and their current status.

No. of Students	Year Graduated	Status
5	1987-88	2 Studied abroad 3 Unknown
18	1988-89	7 Attend National University of Lesotho 4 Civil servants 4 Employed in private sector 2 Commercial farmers in South Africa 1 Unknown
19	1989-90	7 Small-scale entrepreneurs 6 Extension assistants 2 Vendors 4 Unknown
21	1990-91	13 Attend National University of Lesotho 4 Employed by Agricultural Development Bank 1 Range manager/livestock division 1 Agricultural officer 2 Unknown
27	1991-92	10 Attend National University of Lesotho 5 Employed by the agricultural private sector 4 Commercial farmers 4 Attend school in South Africa 4 Employed by nongovernment organization
18	1992-93	6 Small-scale agricultural entrepreneurs 6 Attend National University of Lesotho 4 Attend school in South Africa 2 Moved to South Africa
17	1993-94	5 Attend National University of Lesotho 4 Livestock technical officers 3 Grass roots initiative project 2 Conservation agents 2 Commercial farmers 1 Nutritionist
13	1994-95	13 Small-scale agricultural entrepreneurs
TOTAL: 138[a]		

[a]Ten students' status was unavailable at the time of the study.

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