This is the thirty-sixth in a set of 36 teacher guides to the Entrepreneurial Training Modules and accompanies CE 031 100. The purpose of the module is to give students some idea of what it is like to own and operate an air conditioning and heating service. Following an overview are general notes on use of the module. Suggested steps for module use contain suggestions on introducing the module, a brief discussion of the nine units, responses to learning activities, suggestions for summarizing the module, and responses to the quiz. The units are Planning an Air Conditioning and Heating Service; Choosing a Location; Getting Money to Start; Being in Charge; Organizing the Work; Setting Prices; Advertising and Selling; Keeping Financial Records; and Keeping Your Business Successful. Each unit contains a case study; responses to individual activities; responses to discussion questions; and a group activity. Suggested readings for the teacher and a list of goals and objectives complete the module. (CT)
GETTING DOWN TO BUSINESS:

Air Conditioning and Heating Service

Module 36

Teacher Guide
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GETTING DOWN TO BUSINESS:

Air Conditioning and Heating Service

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OVERVIEW

The purpose of these Getting Down to Business modules is to provide high school students in vocational classes with an introduction to the career option of small business ownership and to the management skills necessary for successful operation of a small business. Developed under contract to the Office of Vocational and Adult Education, U.S. Department of Education, the materials are designed to acquaint a variety of vocational students with entrepreneurship opportunities and to help reduce the high failure rate of small businesses.

As the students become familiar with the rewards and demands of small business ownership, they will be able to make more informed decisions regarding their own interest in this career possibility. It is hoped that, as a result of using these materials, some students will enter small business ownership more prepared for its challenges. Others will decide that entrepreneurship is not well suited to their abilities and interests, and they will pursue other career paths. Both decisions are valid. The materials will encourage students to choose what is best for them.

These Getting Down to Business modules are designed to be inserted into ongoing high school vocational programs in the seven vocational disciplines—Agriculture, Distributive Education, Occupational Home Economics, Business and Office, Trades and Industry, Technical, and Health. They will serve as a brief supplement to the technical instruction of vocational courses, which prepare students well for being competent employees but which generally do not equip them with skills related to small business ownership. The modules are self-contained and require a minimum of outside training and preparation on the part of instructors. Needed outside resources include only those types of materials available to all students, such as telephone directories, newspapers, and city maps. No special texts or reference materials are required. For further optional reading by instructors, additional references are listed at the end of the Teacher Guide. An annotated Resource Guide describing especially valuable entrepreneurship-related materials is also available.

The purpose of this module is to give students some idea of what it is like to own and operate an air conditioning and heating service. Students will have an opportunity to learn about the kinds of activities and decisions an air conditioning and heating service owner is involved in every day. While the module is not a complete "how-to" manual, the individual activities will provide your class with the chance to practice many of these activities and decisions.

Today, owners of small businesses face many problems—some minor, some not so easily taken care of. These problems are reflections of the changes our society is going through. While this module cannot address itself to all of them, the discussion questions at the end of each unit are designed to give students an opportunity to explore possible solutions.
You may want to present this module after completing Module 1, Getting Down to Business: What's It All About? Module 1 is a 16-hour program covering a more in-depth approach to owning any small business. The terms introduced in Module 1 are used in this module with a restatement of their definitions. Also, the forms used are the same, with some minor changes to fit an air conditioning and heating service specifically. Module 1 provides an introduction to owning a small business in addition to some skills and activities that, due to their general nature, are not covered in this module.

Content Organization

Each unit of the module contains the following:

1. Divider Page— a list of what the student should be able to do at the end of that unit.

2. Case Study— an account of a business owner in the field.

3. Text— three to four pages outlining business management principles introduced in the case study but focused more on the student.

4. Learning Activities— three separate sections, including:
   a. Individual Activities— finding information given in the text or applying information in the text to new situations.
   b. Discussion Questions— considering broad issues introduced in the text; several different points of view may be justifiable.
   c. Group Activity— taking part in a more creative and action-oriented activity; some activities may focus on values clarification.

General Notes on Use of the Module

Instructional Time:
Each unit = 1 class period; total class periods = 9
Introduction, quiz, summary = 1
Total instructional time = 10 class periods

The case study and text are central to the program's content and are based on the instructional objectives appearing in the last section of this Guide. Learning activities are also linked to these objectives. You will probably not have time, however, to introduce all the learning activities in each unit. Instead, you will want to select those that appear most related to course objectives, are most interesting to and appropriate for your students, and are best suited to your particular classroom setting. Certain learning activities may require extra classroom time and may be used as supplementary activities if desired.
Before presenting the module to the class, you should review both the Student and Teacher Guides and formulate your own personal instructional approach. Depending on the nature of your classroom setting and the students' abilities, you may want to present the case study and text by instructional means that do not rely on students' reading—for example, through a lecture/question-answer format. Case studies and certain learning activities may be presented as skits or role-playing situations.

No particular section of the module is designated as homework, but you may wish to assign certain portions of the module to be completed out of class. You may want students to read the case study and text in preparation for discussion in the next class period, or you may want them to review the material at home after the class discussion. You may also prefer that students read the material in class. Similarly, individual activities may be completed in class or for homework. Discussion questions and group activities are specially intended for classroom use, although some outside preparation by students may also be needed (for example, in the case of visiting a small business and interviewing the owner).

Methods that enhance student interest in the material and that emphasize student participation should be used as much as possible. Do not seek to cover material exhaustively, but view the course as a brief introduction to entrepreneurship skills. Assume that students will obtain more job training and business experience before launching an entrepreneurial career.

The quiz may be used as a formal evaluation of student learning or as a self-assessment tool for students. Answers to learning activities and the quiz are provided in a later section of this guide.
SUGGESTED STEPS FOR MODULE USE

Introduction (15 minutes, or integrate within first hour of Unit 1)

I. In introducing this module you will want to find out what students already know about the air conditioning and heating business. Points to cover include:

- The need for air conditioning and heating services in your local area. Some parts of the country have a limited need for one or both of these services, depending on the climate.
- Asking students if they have had people come to their home or apartment to work on the air conditioning or heating system. Ask what services were provided.
- Asking students if they know of anyone who owns or works for an air conditioning and heating service. Ask them to describe the work these people do.
- Asking how many students feel they would consider operating their own small air conditioning and heating business.
- Asking what the students think would be the advantages and disadvantages of owning their own business.

II. Discuss small businesses briefly. Over 90% of all businesses in the United States are small businesses. In this module we will be dealing with very small businesses, meaning a self-employed owner working alone or with one to four employees. Often small businesses are owned and run by members of a family.

III. Discuss the purposes of the module:

- To increase students' awareness of small business ownership as a career option.
- To acquaint students with the skills and personal qualities air conditioning and heating service owners need to succeed.
- To acquaint students with the kind of work small business owners do in addition to using their vocational skills.
- To expose students to the advantages and disadvantages of small business ownership.

IV. Emphasize that even if students think they lack management aptitudes, some abilities can be developed. If students "turn on" to the idea of small business ownership, they can work at acquiring abilities they don't have.
Also, students who work through this module will have gained valuable insights into how and why business decisions are made. Even if they later choose careers as employees, they will be better equipped to help the business succeed because of their understanding.

Unit 1 - Planning an Air Conditioning and Heating Service (1 class period)

I. Case Study: Willis Jones is starting a small air conditioning and heating service. He has an appropriate background, knows what services he will provide, and is ready to learn what he needs to know.

Text: Services, Customers, and Competition
Personal Qualities
How to Compete Well
Legal Requirements

II. Responses to Individual Activities

1a. Typical terms to describe services: repair, emergency service, maintenance, cleaning, sales, installation, replacement, remodeling, new construction, etc.

b. Customers: residential, commercial, industrial (or other names for these)

c. Special services, specialties, or strengths might include: free estimates, 25 years of experience, repairs made in your home if possible, reasonable rates, financing available, special brands, reliable service, 24-hour service, locally owned and operated, in business since 1950, etc.

2. All five qualities are desirable. Emphasize that if students do not have these traits, they can work at developing them.

3. Check if the list of requirements is clear.

III. Responses to Discussion Questions

1. Point out that what is an advantage for one person may be a disadvantage for someone else. For example, one person may like making a lot of decisions, while someone else may not.

Possible advantages: may make more money, not having a boss, more control over the work, challenge, etc.

Possible disadvantages: risk losing money, too much work, too many decisions and worries.

2. The list of users will depend on your particular area. Examples include: houses, apartments, mobile homes, schools, churches, stores, restaurants, office buildings, factories,
Building contractors, etc. Many responses can be listed for typical services.

3. Willis Jones does have a good background for starting a business. He has skills of the trade and also has an interest in and some knowledge of business. He has worked as a supervisor. Additional sources of information might include business classes, a friend who runs a business, a lawyer, an accountant, a banker, the Small Business Administration, teachers, and his trade association.

IV. Group Activity

The purpose of this activity is to prepare students for a class visit by someone who operates a small air conditioning and heating business. The visit can be made at any time while the students are working on this module. The visit would be of most benefit toward the end of the module, when the students have been exposed to most of the issues involved. A good time would be at the end of the module as a final wrap-up activity.

Unit 2 - Choosing a Location (1 class period)

I. Case Study: Willis decides what area to service and finds out what the competition is. He also investigates possible locations for an office and shop.

Text:
- Customers
- Competition
- Balance between Customers and Competition
- Personal Considerations
- Selecting a Specific Location

II. Responses to Individual Activities

1. They should include factors concerning both customers and competition. Specific responses may include:
   - population of the area;
   - number of competing businesses;
   - services offered by other businesses;
   - personal preference—want to work there;
   - personal preference—family or friends;
   - expected growth of the town;
   - climate—use of air conditioning and heating;
   - income of the area;
   - age of the houses;
   - amount of new construction; and
   - prosperity of industry in the area.

2. A large firm might have a larger ad, offer more services, or have more than one location listed. A smaller business may have a plain listing or may have only a person's name listed.
3. Have students find the locations on the map and suggest why air conditioning and heating businesses might be located in these spots—e.g., low rent, "basic" decor, etc.

4. Reasons could include: an industrial area, near similar businesses, near customers, close to the major roads, low rent, etc.

5. Reasonable price for your area. Desirable features might include: shop, small offices, garage doors, near freeway, etc.

III. Responses to Discussion Questions

1. Students should include the demand for services such as age of houses, use of air conditioning and heating, and economic level of residents. They should also consider available services. For example, if new construction is slow, there may be a lot of competition for available jobs, and services may be charging lower prices.

2. There is no "right" answer. The medium-sized town seems to have more of a need, particularly in new construction, but it also has more competition. Point out that there are advantages and disadvantages to different situations and that sometimes it is not clear what the best choice is.

3. There is no "right" answer. The first choice is at a cheaper rate and has more space, but the rent per month is higher; there is no office, and the low rate may reflect other undesirable features.

   The second choice has a lower monthly rent, may have a good location, and has an office. The rate per square foot is higher, which may reflect desirable features. It is smaller than Willis wanted but adequate for his immediate needs.

   Willis could visit the places and get more information on the condition of the buildings, appropriateness of the space, and convenience of the location. He could also find other listings to compare these to.

   Point out that in business you must often make choices in which you have to weigh the advantages and disadvantages and it is not clear what the "best" choice is.

IV. Group Activity

Location factors to consider for all businesses are listed under the response to Individual Activity #1. There is no "correct" answer. Point out that different people may feel that different factors are most important.
For repair work, important factors would include the age of the houses, number of houses in the area, and income level in the area.

Important factors for new construction would include growth trends, prosperity of local industry, local regulations on construction, and general economic conditions.

Unit 3 - Getting Money to Start (1 class period)

I. Case Study: Willis started out on a small budget. He used his own savings and borrowed money from his uncle. He could have borrowed money from a bank.

Text: Information to Get a Business Loan
- Personal Background Information
- Business Description
- Financial Information

II. Responses to Individual Activities

1. a. personal background information
   b. description of the business
   c. financial information

2. Suggestions for improvement should include:
   a. listing personal background information
   b. giving plans for the future—expenses, growth, hiring, etc.
   c. other responses, such as more details, more financial information, etc.

3. List could include: salaries, benefits, rent, utilities, equipment, tools, parts, supplies, trucks, gas, maintenance, advertising, license fees, insurance, office equipment, office supplies, answering service, lawyer, accountant, bookkeeping service, interest, taxes, etc.

4. Total Starting Expenses $7,000
   Total Money on Hand $4,000
   Total Loan Money Needed $3,000

III. Responses to Discussion Questions

1. Advantages of starting low: less risk, can see if there is enough business, trying things on a small scale, keeping expenses low, etc.

Advantages of starting high: can provide more services, may make more money, can advertise more, can buy better equipment, etc.
2. Conditions on the loan might include interest, time to pay the loan back, and some collateral.

3. Reasons for more tools and inventory may include: he learned what he needed, he needed more tools and parts and lost time on the job going to get them, he had more money, he saw new jobs he could do for customers, etc.

IV. Group Activity

The role playing should be done in a supportive atmosphere in small groups of five to seven. Do not have students comment on other students' "performance." Rather, have only the students who participated share how they felt playing their roles. Then ask other students who have an idea about how they might do it differently to play the roles.

In regard to what to wear, the banker will be wearing a suit. It isn't necessary for the loan applicant to wear a suit, but clean, neat clothes will certainly give a more favorable impression than dirty work clothes.

Unit 4 - Being in Charge (1 class period)

I. Case Study: Willis hires two union journeymen and a half-time office worker.

Text: Tasks
Selecting Staff
Keeping People Happy

II. Responses to Individual Activities

1. 1. c
2. a
3. a
4. b

2. Students should report their findings. Having a union or apprenticeship program representative visit the class can be a very valuable learning experience.

3. Students should bring in job listings. Prepare a bulletin board to post them.

4. b., possibly c., not a

5. Three of these: good pay and benefits; clear policies; clear directions; training; and good personal relations.
III. Responses to Discussion Questions

1. Legally, a business owner cannot discriminate against job applicants because of their sex. The decision of whom to hire should be made on the basis of how well the person does the work. You may or may not feel comfortable about it. Some of the other employees and customers may like it, others may not like it, and still others will not care.

2. Advantages of supervising might include: more pay, more responsibility, interesting work, more decision making, etc.

Disadvantages might include: having to tell other people what to do, not as much fun, you're responsible if something goes wrong, etc.

3. The second ad is more specific about the desired skill level and what is required on the job. The first ad may get more responses.

IV. Group Activity

Issues might include: being clear with Hank about when he should be there, keeping track of how often it happens and how late he is, exploring the possibility of changing the time he should come in, having a clear penalty if the lateness continues, etc.

Students can role play the situation of Willis talking to Hank if that seems appropriate.

Unit 5 - Organizing the Work (1 class period)

I. Case Study: Willis develops a system for organizing and scheduling the work. He also learns to manage his time.

Text: The Work Order
      Scheduling
      Time Planning

II. Responses to Individual Activities

1. Any of these: company name and address; customer name, address, and telephone number; date order taken; order number; who took the order; when the work will be done; when the work is done; who does the work; cost.
2. Person Doing Work | Description of Work | Materials | Labor
| Della Jackson | Replace thermostat | $30.00 | $28.00 |
| | | Total Materials | $30.00 |
| | | Total Labor | $28.00 |
| | | Tax (5% on materials) | $1.50 |
| | | Total Cost | $59.50 |

3. A work schedule would include: the name of the workers, the date, the work to be done, and the work order number and/or job description.

4. WORK SCHEDULE
   Date: Tuesday, March 4

   Employee | Description of Job
   | James | Work Orders #81, #76, and #82

5. Probably at least three copies—one to keep at the office, a completed copy to leave with the customer, and a completed one to bring back to the office. You may want a fourth copy, depending on how your records are kept.

III. Responses to Discussion Questions

1. This can be an excellent activity for students to see different ways of recording information.

2. The worker might not write it down and might forget or misinterpret what you say. The customer may say something different, and there would be no work order to check with. In general, the work order reduces the chances for misinterpretation and confusion.

3. The best order would be b, a, c, and d. Students can defend other orders also.

IV. Group Activity

   Typical tasks might include: scheduling work; returning telephone messages; answering telephone calls; supervising work; preparing an estimate; going out on a work order; applying for a construction permit; ordering parts; reviewing financial records; etc.

   Students can learn from the process of trying to rank these activities how to plan time more effectively. Stress the importance of planning and organizing and the need to make trade-offs. Also point out that sometimes the owner can delegate some tasks. Discuss the factors of "urgency" and "importance" in planning schedules. For example, planning an advertising campaign is not urgent but it is important. Reading junk mail is neither urgent nor important.
Unit 6 - Setting Prices (1 class period)

I. Case Study: Willis sets an hourly rate plus cost of parts for his repair work charges. On larger jobs he visits the site and makes an estimate.

Text: Acceptable to Customers
In Line with the Competition
Components of Price
Establishing a Price

II. Responses to Individual Activities

1. Responses should include profit, salaries, benefits, equipment, office expenses, rent, taxes, etc.

2. The best answer is $100, which gives a 15% profit. $85 would not provide any profit; $125 is too high—your competition would probably offer a lower bid and be chosen to do the job.

3. $1,000 would give Willis $100, or 10%, profit.

4. Assess adequacy of students' information.

5. Students will bring a manual to class and/or report to the class on the type of information it contains—such as estimates on how long certain jobs take to do. Tell students that the estimates would need to be adjusted for their own local situation and for particular workers.

III. Responses to Discussion Questions

1. Make the point that different businesses have different strategies. Some emphasize quality and charge higher prices, while others may stress low prices and count on doing a large volume of business. Ultimately, the success of the strategy depends on whether customers like your prices or not.

2. Stress the point that what seems cheaper in the short run may end up being more expensive in the long run. However, the homeowner may only be able to afford the less expensive bid and may be satisfied with a less efficient unit. You could ask Company B to make another bid based on the unit suggested by Company A to have a better cost comparison.

3. The restaurant job is probably most desirable, although Willis would need to check on the complexity of the job. It might not be worth Willis' time to make a bid for the homeowner, as it may take him an hour or more just to do the estimate. The commercial job would require many hours to prepare an estimate, and it is unlikely his offer would be accepted (although the size of the job makes it attractive, and Willis may want to get experience in learning how to bid larger jobs). Given the
size of Willis' operation at this time, he would probably be expanding too fast if he took on the commercial job.

IV. **Group Activity**

The customer may prefer a fixed rate so he or she will know how much it will cost and can compare rates. The employee would probably prefer actual time spent so he or she wouldn't feel as much time pressure. The owner would also probably prefer a flexible rate, although a standard rate may be a better strategy for getting business, may be useful in planning, and may be more profitable if the workers are efficient.

**Unit 7 - Advertising and Selling (1 class period)**

I. **Case Study:** Willis advertised by having an ad in the phone book, telling friends, and having a newspaper ad. He found that part of his job was selling to customers.

**Text:**
Customer Needs
Advertising and Promotion
Selling and Customer Relations

II. **Responses to Individual Activities**

1. Five of these: telephone book, telling friends, contacting contractors and other mechanics, the newspaper, mailings, telephoning prospective customers, brochures.

2. Students should have the name of a service that does emergency repair, one that does installation, and one that does commercial work. Note that the same company may use a different ad under air conditioning and under heating.

3. All students should list "name" and "telephone number." Other common pieces of information include: the business address, contractor's license number, services, customers, and hours.

4. Students should find where such ads might appear in the classified section of the newspaper, even if no ads are listed. Students should defend their choice of ads based on their conduct and format.

5. Reasons for selecting a name may include: comes early in the alphabet, describes the service, emphasizes low prices, is personalized, etc.

III. **Responses to Discussion Questions**

1. Home repair work--Yellow Pages; new construction--contacts with contractors; remodeling--newspaper, Yellow Pages.
2. Students should be aware of how all contacts with the customer are part of selling the service. Mechanics win or lose customers by their attitude on the job and their workmanship.

3. There is no "correct" answer. Issues to be considered include what size ad his competitors have, how important he thinks the Yellow Pages are, and alternative uses for the money.

IV. Group Activity

Ads should be simple, attractive, informative, and "catchy." The illustration should project an image that will appeal to the targeted customers. The most important information should be most prominent in the ad. Ads should also have a certain amount of "white space." Overly cluttered layouts are unappealing and confusing to readers. In summary, ads should be creative and organized.

Unit 8 - "Keeping Financial Records (1 class period)

I. Case Study: Willis needed to learn new skills in bookkeeping and accounting to run his business.

Text: Importance of Financial Records
Customer Billing
Daily Cash Sheet

II. Responses to Individual Activities

1. Making decisions and planning; keeping track of revenues; keeping track of expenses; and preparing taxes and other reports.

2. 

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of Work</th>
<th>Amount Charged</th>
<th>Payment Received</th>
<th>Balance Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/15</td>
<td>Air Conditioning Maintenance</td>
<td>$50.00</td>
<td>--</td>
<td>$50.00</td>
</tr>
<tr>
<td>2/5</td>
<td>Check Received</td>
<td>--</td>
<td>$50.00</td>
<td>--</td>
</tr>
<tr>
<td>4/4</td>
<td>Air Conditioning Maintenance</td>
<td>$50.00</td>
<td>--</td>
<td>$50.00</td>
</tr>
<tr>
<td>5/2</td>
<td>Adjust Air Conditioning System</td>
<td>$80.00</td>
<td>--</td>
<td>$130.00</td>
</tr>
</tbody>
</table>
### DAILY CASH SHEET

<table>
<thead>
<tr>
<th>Cash Receipts</th>
<th>Cash Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Sales</td>
<td>Salaries $1,500.00</td>
</tr>
<tr>
<td>Collection on 550.00</td>
<td>Building Expenses</td>
</tr>
<tr>
<td>Credit Sales</td>
<td>Equipment and Furniture</td>
</tr>
<tr>
<td></td>
<td>Inventory or Supplies</td>
</tr>
<tr>
<td></td>
<td>Advertising 100.00</td>
</tr>
<tr>
<td></td>
<td>Other 85.00</td>
</tr>
<tr>
<td><strong>TOTAL CASH RECEIPTS</strong></td>
<td><strong>TOTAL CASH PAYMENTS</strong></td>
</tr>
<tr>
<td>$550.00</td>
<td>$1,685.00</td>
</tr>
</tbody>
</table>

4. A progress billing is when the customer pays the bill in parts as work is completed.

5. Depends on your local area--adult education class, community college, college, self-study, correspondence class, special seminar.

### III. Responses to Discussion Questions

1. If the owner has more than two employees, it is generally not the best use of the owner's time to keep all the records. It would depend on the amount of recordkeeping needed, how much it would cost to hire someone to do it, and how the owner wants to spend his or her time.

2. Cash--small jobs; not sure they will pay; ask for cash as much as possible so you don't need to collect.

   Credit--good customer; may not get the job otherwise; so employees don't need to collect the money; if your competition gives credit.

3. Students should discuss the issue of how to collect bills while still being on good terms with the customer. In this case, Willis should probably call the restaurant and make an agreement as to when the owner can pay the bill. He probably won't do any more work for this customer until the bill is paid.

### IV. Group Activity

Financial information would be helpful in deciding:

- to expand--buying a new van, hiring a new employee;
- to take a large contract--hiring an employee, etc.;
- how much salary he can take;
- if there is enough cash for expenses;
- if a bank loan is needed;
• if there is more cash than needed and it can be invested elsewhere;
• how to figure costs on an estimate;
• how much to charge for which services; and
• what hourly rate to charge.

Unit 9 - Keeping Your Business Successful (1 class period)

I. Case Study: At the end of five years Willis was enjoying running his own business and was considering improvements he could make.

Text: Profit and Personal Satisfaction
       Profit/Loss Statement
       How to Increase Profits

II. Responses to Individual Activities

1. Expense Ratio = \( \frac{\text{Expenses}}{\text{Revenues}} \)

   Profit Ratio = \( \frac{\text{Net Profit}}{\text{Revenues}} \)

   The expense and profit ratios provide a way to compare years or other periods of time as well as a way to compare your success to that of other businesses.

2. Profit = $45,000
   Expense Ratio = 35%
   Profit Ratio = 15%

   He had the same profit ratio and more profit than in years four or five—hence, he had a better year.

3. Reasons can include: more competition; customers don't like the service; prices are too high; new construction is slow; economic conditions; not enough advertising, etc.

4. Ways to increase revenues can include: raising prices; doing more business; being more efficient; providing more services; providing different services; emphasizing more profitable services, etc.

5. Ways to reduce costs include: keeping less inventory; putting off buying new equipment; being more efficient; paying lower rent; doing less advertising; supervising employees more closely, etc.
III. Responses to Discussion Questions

1. Students should discuss how much the owner should be rewarded for what he or she does and the risks he or she takes. Any answer can be defended.

2. Issues here might include personal preferences, type of customer, profitability, amount of coordination required, stability of work, competition, etc.

3. Students should discuss how being a small business owner would appeal to them personally.

IV. Group Activity

The point of this activity is for students to see that the best decision is often not clear and that there are trade-offs in most cases.

Summary (30 minutes)

If desired, the Quiz may be given prior to summarizing the module and doing wrap-up activities.

Emphasize major points of the module such as:

- Being a small business owner is not appropriate for everyone.
- A business owner takes a risk; he or she may make money, but he or she may also lose money.
- To be successful in a small business, you must be able to sell your service.
- A small business owner should know about business matters and should like managing.
- Planning and organization are important in running a business successfully.

Remind students that their study of this module was intended as an awareness activity so they could consider entrepreneurship as a career option. Their introduction to the skills required for successful small business management has been brief. They should not feel that they are now prepared to go out, obtain a loan, and begin their own business. More training and experience are necessary. You can suggest at least these ways of obtaining that experience: one way is to work in the business area in which they would eventually want to have their own venture; another is to go to school (community colleges are starting to offer AA degrees in entrepreneurship).
This is a good time to get feedback from the students as to how they would rate their experience with the module. Could they identify with the characters portrayed in the case studies? How do they feel about the learning activities?

If possible, use a final wrap-up activity to help students apply what they have learned in the module. Possible ideas include the following:

- Have students discuss or write about how they see themselves owning an air conditioning and heating service now that they know more about it. If time runs short, students could do this on their own time as a means of self-assessment.

- Use one or more of the Group Activities that were not done earlier. (The first one, in Unit 1, "Visit to Class by the Owner of an Air Conditioning and Heating Service," might be particularly appropriate.) Feel free to combine, expand, and adapt the activities so that students can consider a more complete picture of running an air conditioning and heating service.

**Quiz (30 minutes)**

The quiz may be used as an assessment instrument or as an optional study tool for students. If you wish to use the quiz for study purposes, duplicate and distribute the answer key to students. In this case, student achievement may be assessed by evaluating the quality of students' participation in module activities.

**Quiz Answer Key**

1. d
2. a
3. d
4. d
5. Responses include: demand for your service, the amount of competition, personal preferences.
6. c
7. a. personal background  
   b. information on business  
   c. financial information
8. Total Starting Expenses $5,000  
   Total Money on Hand $3,000  
   Total Loan Money Needed $2,000
11. Three of these:

- good pay and benefits
- clear policies
- clear directions
- appropriate training
- good personal relations

<table>
<thead>
<tr>
<th>Person Doing Work</th>
<th>Description of Work</th>
<th>Materials</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fred Harris</td>
<td>Repair on air conditioning unit</td>
<td>$54.00</td>
<td>$72.00</td>
</tr>
</tbody>
</table>

- Total Materials: $54.00
- Total Labor: $72.00
- Tax (6%): $3.24
- Total Cost: $129.24

18. Total Cash Receipts: $650.00
   Total Cash Payments: $700.00

19. a. Profit = $20,000
    b. Profit Ratio = 20%
    c. Expense Ratio = 30%

20. Increase revenue or sales; decrease expenses or costs

21. Responses can include: do more advertising, lower prices, improve quality, provide a different service
SUGGESTED READINGS


GOALS AND OBJECTIVES

Goal 1: To help you plan your air conditioning and heating service.

Objective 1: Describe the services, customers, and competition of an air conditioning and heating service.

Objective 2: List three personal qualities an owner of this business might have.

Objective 3: List three ways to help your business compete successfully.

Objective 4: List one or more special legal requirements for running an air conditioning and heating service.

Goal 2: To help you choose a location for an air conditioning and heating service.

Objective 1: List three things to think about in deciding on a service area for your business.

Objective 2: Pick the best location for this business from three choices and explain your choice.

Goal 3: To help you plan how to get money to start an air conditioning and heating service.

Objective 1: Write a business description for an air conditioning and heating service.

Objective 2: Fill out a form showing how much money you need to borrow to start your air conditioning and heating service.
Goal 4: To help you select and manage the people with whom you work.

Objective 1: Decide how to divide the work of your service among several employees.

Objective 2: Pick the best person for a specific job in your company.

Objective 3: List three ways to keep your people happy.

Goal 5: To help learn how to keep track of the work of your air conditioning and heating service.

Objective 1: List what needs to be done for one of your customers on a work order form.

Objective 2: Given several tasks to do on a particular day, write a work schedule for yourself or an employee.

Goal 6: To help you decide how to set prices for your air conditioning and heating service.

Objective 1: Pick the best price for one of the services of this business.

Goal 7: To help you learn ways to advertise and sell the services of an air conditioning and heating business.

Objective 1: Choose the best way to advertise your air conditioning and heating service for a specific purpose.

Objective 2: Design a printed ad for your air conditioning and heating service.
Goal 8: To help you learn how to keep financial records for your air conditioning and heating service.

Objective 1: Fill out a customer account form for a customer.

Objective 2: Fill out a daily cash sheet for money received and paid out in one day.

Goal 9: To help you learn how to keep an air conditioning and heating service successful.

Objective 1: Figure out the net profit, profit ratio, and expense ratio for this business.

Objective 2: State one way this business could increase its profits.

Objective 3: State one way this business could change its services to increase sales.