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ABSTRACT This is the thirty-third in a set of 36 teacher guides to the Entrepreneurial Training Modules and accompanies CE 031 094. The purpose of the module is to give students some idea of what it is like to own and operate a construction electrician business. 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 a Construction Electrician Business; 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 group activity. Suggested readings for the teacher and a list of goals and objectives complete the module. (CT)

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GETTING DOWN TO BUSINESS:

Construction Electrician Business

Module 33

Teacher Guide

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GETTING DOWN TO BUSINESS:

Construction Electrician Business

Joyce P. Gall

May 1981

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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 a construction electrician business. Students will have an opportunity to make the same decisions that the owner of a construction electrician business makes. While the module is not a complete "how-to" manual, the individual activities will provide your class with the chance to do many of the planning and daily activities that small business owners do.

Today, owners of small businesses face a multitude of problems--some minor, some that threaten their very existence. These problems reflect the constant changes that our society is going through--economic, cultural, and technical. While this module cannot hope to address itself to all of them, the discussion questions at the end of each unit are designed to give your class the opportunity to discuss them and develop, on a hypothetical basis, solutions for themselves.

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 a construction electrician business 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 page listing the unit's goal and objectives.
2. Case Study--an account of an owner of a construction electrician business for a more intimate view of owning a construction electrician business.
3. Text--three to four pages outlining business management principles introduced in the case study.
4. Learning Activities--three separate sections, including:
 - a. Individual Activities--finding information given in the text or applying information 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	Each unit = 1 class period; total class periods = 9
Time:	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. Experience as a Construction Electrician as a Basis for Your Own Business.
 - a. Requires good measurement skills, patience, and endurance.
 - b. Requires the ability to estimate costs and time requirements of jobs, each of which is different.
- II. Find out what students already know about the construction electrician business. 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. Questions to ask are:
 - What is a construction electrician?
 - What is a construction electrician subcontracting business?
 - What do students think are the advantages of owning a construction electrician business?
 - What do they think are the disadvantages?
 - As of right now, how many students feel they would consider being the owner of a construction electrician business?
 - Do students have a stereotyped image of what an electrician is like?
- 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 owners of a construction electrician business need to succeed;
 - to acquaint students with the kind of work small business owners do in addition to using their vocational skills; and
 - 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 a Construction Electrician Business (1 class period)

- I. Case Study: Richard Novotny and Jeff Shimus become partners. They open R-W Electric, offering electrical contracting services and selling electrical supplies. They have a combined background as construction electricians, in supervising electrical work, and in sales.

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

II. Responses to Individual Activities

1. Apprenticeship training. Bonding. An electrical contractor's license. Union membership.
2. The more "no" answers, the better your chances of success.
3. A construction electrician does not work with heavy equipment for the most part. He or she does use tools that require a steady hand and eye and also has to work for long periods in one position to install electrical wiring or hook up equipment.
4. Offer a service for which there is high demand. Locate in an area that needs your services. Build a good reputation. Have many contacts.
5. Possibly mentioned: pumps, motors, ranges, dryers, solar energy, heating, lighting, swimming pool, marine control systems, wiring, installing, repair, sales, and security monitoring.

III. Responses to Discussion Questions

1. Richard and Jeff both have a background in electrical construction. Jeff has a sales background, and Richard has supervised electrical workers. They seem to have a good combination of technical and business skills.
2. Problems: You are to blame if the work is not done right. You may make less money because you are responsible for losses. You will not have a steady income.

Benefits: You get to keep the profits. You get to make your own decisions. You can take time off without getting someone else's permission. You get credit if the work is done well.

3. To do a certain amount of work. To do the work in a certain amount of time or by a certain deadline. To do the work for a fixed price. To do work of acceptable quality in terms of safety, durability, and appearance.

IV. Group Activity

The purpose of this activity is to give students firsthand exposure to someone who has used a background as a construction electrician to go into business for him- or herself. A second outcome of the activity is to give students practice in interviewing people running a small business as a way of getting information to help them explore career options.

The teacher should check the questions students plan to ask to see if they are relevant to the objectives of this unit, clear, etc. Give students feedback on their class report. Discuss with students whether other information would have been desirable to get from the person and how they might have gotten it.

Unit 2 * Choosing a Location (1 class period)

- I. Case Study: Richard and Jeff debate the need to rent a business location versus working out of their homes. They rent a commercial location so that they can work together to manage the business, have more room for storage, and sell electrical supplies in addition to providing contracting services.

Text: Importance of the General Area You Live In
What You Need from Your Business Location
Paying for a Separate Business Location

II. Responses to Individual Activities

1. Need for the electrical services you want to specialize in. Amount of competition. Whether you will like living there. Whether you have friends, relatives, or business associates in the area. Whether you are familiar with the area.
2. Talk to general contractors in the area. Talk to realtors. Talk to homeowners. Talk to representatives of the local electrical workers' union.
3. Room to store tools and equipment. A place to do electrical work. A place to plan, keep records, and pay bills. A place where customers can reach you.

4. "A" costs 40¢ a square foot (\$250 divided by 625). "B" costs 70¢ a square foot (\$840 divided by 1200). So "A" is a better buy.
5. Possible features mentioned: shop, office space, parking, heavy electrical power, busy location, access to the freeway.

III: Responses to Discussion Questions

1. Possible reasons to support each choice: being in an industrial area; being far away from (or close to) competition; being convenient for customers to find; low-rent area; being in an area zoned for both residences and businesses so you could have a home-based business.
2. Doing electrical wiring for new homes or businesses suited to a rural area. Doing electrical work to maintain farm equipment. Doing electrical work for remodeled farm houses, barns, and warehouses.
3. Pros: Less expensive. You can quickly get tools or materials you need. You can alternate between work and home activities readily.

Cons: Space may be limited. Noise or dirt from your work may be a problem for people you live with. You must work harder to make your business visible to the public.

IV: Group Activity

1. This activity is designed to provide a practical exercise on locating a construction electrician business.
2. Before conducting the activity, find a local map of your area.
3. Help students locate construction electrician businesses on the map. Then help them draw appropriate boundaries that enclose these businesses.
4. Discuss the general area so defined. How large is it? Is it too small to support another business? Where might possible office locations exist?
5. Lead students to determine where the best location would be, stressing the need for centrality (in the middle of the service area) and convenience (easily accessible--for example, near an area where there is a lot of development or remodeling going on).
6. Discuss additional things to look for (students can use their answers to Individual Activity 5).

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

- I. Case Study: Jeff and Richard estimate the start-up expenses for their planned electrical business. They decide they need a business loan in addition to the money they each put in and write a business description and statement of financial need to apply for it.

Text: Purpose of a Statement of Financial Need
What a Statement of Financial Need Includes
Purpose of a Business Description
What a Business Description Should Include

II. Responses to Individual Activities

1. Advantages: Friends may not charge interest. You don't have to spend much time convincing a friend who knows you well that you can be trusted. Friends may be more willing to support your business venture than a lending institution.

Disadvantages: Friendships often suffer when a loan is not paid back promptly. Your friends may need the money themselves. Being in debt to a friend may make you feel uncomfortable around that person.

2. Business type and names. Products or services. Location and reason for choosing it. Potential customers. Competition. Plan for competing. Plan for running the business.

3. Problems: You have to wait until the loan is granted, which can delay the start of your business. You must pay interest on a loan. You must pay back a loan in a specified time.

Benefits: Most people don't have enough money on hand to get started. You increase your chances of success by having enough capital. You can reserve your personal capital for a backup if the business does poorly at first.

4. The statement of financial need helps you think of all the sources of money you might use. b) It helps you plan more carefully to meet expenses. c) When you finish the statement, you may decide you need a loan after all.

III. Responses to Discussion Questions

1. Repairs and remodeling: Do the work themselves. Rent a business site that is in good repair and is already suited to the electrical contracting business' needs.

Equipment and furniture: Build up a good supply of personal tools and equipment beforehand. Use furniture from home or buy it secondhand.

Salaries: Don't pay any salaries to the owners until you take in more revenues. Don't hire employees at first.

2. It should explain the plan to serve both commercial builders as electrical subcontractors and homeowners through the sale of electrical supplies.
3. She could find a different location with lower rent or one that is already suitable for a construction electrician business. She could work out of her home for a while.

IV. Group Activity

This activity is designed to give students practice in writing a business description based on information provided in the case study.

Give students feedback on the completeness of the business description with respect to the coverage of:

1. business type and name;
2. products or services to be offered;
3. business location and reason for choice;
4. potential customers;
5. competition;
6. plan for competing; and
7. plan for running the business and keeping it successful.

Also give students an overall opinion about how persuasive the business description is--that is, how likely you think it is to get them a loan, and why.

Unit 4 - Being in Charge (1 class period)

- I. Case Study: Richard and Jeff share all aspects of running the business at first. Then they hire an employee to help in the store. Jeff manages the sales operation and supervises the employee. Richard does estimating and hires electrician's helpers for big jobs. The partners share bookkeeping and making major business decisions.

Text: What It Means to Be in Charge
Dividing the Work
Paying for Services
What to Look for in Hiring Employees
Supervising and Training Employees

II. Responses to Individual Activities

1. Possible benefits: You can take on more work. You have help on hand for hard jobs. You have company while you work.

Possible problems: You will have to supervise someone. Your helper's salary will be added to your expenses. If your helper does not do a good job, it will reflect on your business.

2. Robert could take more vocational courses in high school or at a vocational school. He could learn on the job from Ted. He could go through an apprenticeship program that would give him experience in different aspects of an electrician's work.
3. There is no "best" answer. Possible reasons for selecting each choice: Lee Jones would not need much additional training and would take the work seriously. Lynn Jenks would be fun to work with and would provide adequate help at a reasonable price. Ray Summer would appreciate direction, would work hard, and would work for low pay.
4. Do it yourself. Hire an employee to do bookkeeping. Pay for bookkeeping services from an independent agent.
5. a) Good math skills: wire and position electrical equipment accurately. b) Patient: will take time to put in each piece of equipment properly. c) Gets along with others: will accept supervision. d) Good physical health: can work for long periods in cramped positions.

III. Responses to Discussion Questions

1. Ask friends and business associates for possible names. Contact local high schools and vocational schools. (They generally help their graduates obtain jobs.) Check directory of services and "situations wanted" in classified ads. Contact the electrical workers' union or contractors' association in their area.
2. Advantages: Your partner will have more knowledge of some aspects of the business than you do. Two people can usually come up with more ideas for solving a problem than one person can.

Disadvantages: It may be harder to make decisions since you may have different ideas about what's best. It takes longer to reach a decision because you have to take time to communicate back and forth.

3. Observe the employee's work. Ask the employee questions to test his or her knowledge of various aspects of electrical construction. Ask the employee's own opinion of kinds of additional training he or she needs. Compare the quality of the employee's work on different tasks.

IV. Group Activity

This activity is designed to give students practice in dealing with the difficult task of firing an employee as an owner of a construction electrician business or electrical contractor. Give students suggestions, if necessary, about possible "Dos" and "don'ts." Ask them to explain their own list.

Possible "Dos"

1. Let the person know in advance (for example, two weeks).
2. Explain the reason the person is being terminated
3. Be ready to give specific examples of the problems involved
4. Let the person know in private
5. Be firm but nice
6. Give some terminating pay if possible

Possible "Don'ts"

1. Don't discuss it with the person's coworkers
2. Don't let the person who is being fired train his or her replacement
3. Don't let the person talk you out of it once you've decided to terminate him or her
4. Don't be in such a hurry to replace the person that you make the same mistake with the new person you hire

Unit 5 - Organizing the Work (1 class period)

- I. Case Study: Richard makes a bid on an electrical subcontract. Jeff and a helper use a work order to do an installation job. They each have to schedule their time to take into account delays in getting supplies, schedules of employees and people hired for electrical jobs, and handling other details.

Text: Making an Estimate
Work Orders
Scheduling Work
Time Planning

II. Responses to Individual Activities

1. Customer's name and address. Person(s) doing the work. Cost of materials. Cost of labor. Total cost of job. Starting and completion date.

2.

Person Doing Work	Description of Work
Shimus	Connect vapor degreaser. Install power to 120 volt battery charger
	TOTAL LABOR \$270.00
	MATERIALS 200.00
	TAX ON MATERIALS 10.00
	TOTAL COST \$480.00

3. The schedule should include all three "must do" tasks. It should include either both of the one-hour "like to do" tasks or the one two-hour "like to do" task at the end of the day, since these are less critical to do today. Any order of tasks that fits Richard's morning time block of four hours and his afternoon time block of five hours is acceptable, for example:

8-9	Pick up supplies for factory wiring	1-2	Complete warehouse lighting installation
9-10	Estimate work for S. Hills department store	2-3	" "
10-11	" "	3-4	Get car radiator fixed
11-12	" "	4-5	" "
12-1	LUNCH	5-6	Visit dentist

4. To remind yourself of appointments. To make sure you do all the necessary jobs first. To help people who may need to contact you know where you will be at any given times.
5. Have a superintendent work out daily or weekly assignments with each member of the electrical work crew. Give workers the contract, estimate, and/or blueprints to use in doing the work.

III. Responses to Discussion Questions

1. Possible reasons for leaving out each "like to do" task:

Visit dentist: It might have taken longer than an hour. It is easier to leave out unpleasant tasks. This is not critical to the business.

Order new business cards: This can be delayed a bit without any major damage to the business. Richard may be able to delegate this task.

2. The worker might forget to do the work. The worker might not understand some part of the job. The customer might complain that the work was not done as agreed, and you would have no way to check on the customer's statement.
3. Not if Richard likes being in charge. He has less time to spend on electrical work because he must also spend time on all the tasks involved in running a business. If he wants to do only electrical work, he should consider becoming an employee of an electrical contractor or construction company again.

IV. Group Activity

The purpose of this activity is to give students practice in planning time for an owner of a construction electrician business.

Possible suggestions: Do the books in the evening or on weekends. Hire someone else to do the books. Answer phone messages in the evening--more people are home then, and it leaves more day hours free for jobs. Look at supply catalogs and sales ads once a week rather than each day, or do this after the jobs for the day are finished.

Unit 6 - Setting Prices (1 class period)

- I. Case Study: In bidding on the electrical work for construction jobs, Richard takes into account the cost of materials plus tax, cost of labor, overhead, and profit. In setting prices for supplies sold in their store, Jeff figures cost of supplies plus tax, operating expenses, and profit.

Text: Factors That Determine Price
Total materials
Total labor
Overhead
Profit

Other Factors That Affect Price
Competition
Demand

II. Responses to Individual Activities

1. Advantages for the electrical contractor: The planning involved in making an estimate will give the contractor a better idea of the likely costs of the job and thus help him or her set a fair price.

Advantages for the customer: The customer will have a more realistic idea of what the work will cost, and why, before deciding whether to have the work done. The customer can compare prices of different electrical contractors by getting more than one estimate.

2. Salaries, operating expenses, and profit.
3. The best answer is \$100, which gives a 15% profit:

$$\frac{(\$100 - 85)}{\$100} = .15 \text{ or } 15\%$$

This is a reasonable profit and will also allow you to underbid the competition.

4. Total Cost of Job:	10% Profit:	Total Estimate:
\$ 5,000	\$10,000	\$10,000
+ 5,000	x .10	+ 1,000
\$10,000	\$ 1,000	\$11,000

He should estimate the job at \$11,000.

5. Problems of raising prices: Customers may not use as many of Jill's services. She may lose customers to lower-priced competition.

Problems of cutting the number of employees: Jill may not be able to take as many jobs. Her revenues and profit may decrease.

III. Responses to Discussion Questions

1. Employees' salaries and hours. Amount of time the owner spends supervising and keeping records on employees. Cost of any tools, equipment, workspace, etc. that the owner provides for employees.
2. It is true that making an estimate takes time. But Richard could lose more money than he would save if he failed to make an estimate and (a) he under-calculated the materials he needed and then had to wait to order more; (b) he overcalculated the materials needed and then was stuck with an excess; (c) he lost a job that was half done because he raised the price and the customer would not pay the increased cost; or (d) he lost money on a job that took him longer to do than he had estimated it would.
3. Offer necessary services such as repair work. Build a reputation for doing work of high quality. Deliver quickly on jobs.

IV. Group Activity

The purpose of this activity is to give students practice in dealing with the unknowns that may be involved in pricing the electrical work for a remodeling, repair, or construction job.

Another outcome is to illustrate the differing perspectives of a business owner and a customer with regard to price and the importance of communication between them.

Help students predict the possible problems for Richard if he gives a fixed estimate and for Tim if he okays the work without knowing what it will cost.

Possible agreements acceptable to both parties: Richard could set some maximum limit on the amount he will charge and review this as the work proceeds. Tim could agree to pay a certain amount upon completion and the rest within a given time limit if the price is higher than he expected.

Unit 7 - Advertising and Selling (1 class period)

- I. Case Study: Richard and Jeff use business cards, special forms and stationery, the Yellow Pages, and good customer relations to advertise and sell their services.

Text: Advertising Methods

Word-of-mouth
A business card
Printed forms and stationery
The Yellow Pages
Newspaper ads
Your vehicle
Other methods
What Makes a Good Ad?
Selling Your Services

II. Responses to Individual Activities

1. Offer services of high quality. Treat your customers with respect. Explain their alternatives. Answer questions. Refer people to others if you cannot provide the service they need.
2. A good ad should catch people's attention; give important information about your business; make people want to buy what you are offering; be easy to understand; and be easy to recognize.
3. c; d; b; a
4. Comfort: Having an electrician install new appliances, equipment, or heavy duty wiring makes a home more modern, adaptable, and comfortable to live in.

Convenience: It is more convenient to hire someone to do electrical work than for homeowners to do the work themselves.

Pride or status: Having modern or unique appliances, heating, lighting, etc. will increase owners' pride in their homes.

Saving money: It may be far more economical to remodel a home and have the necessary electrical work done to get the features an owner wants than to sell one's home and have to buy a more expensive one.

Security or safety: Having a trustworthy electrical contractor do your electrical repair, installation, or construction work makes you more confident that there will be no fire damage, electric shock, etc. when you use electricity.

III. Responses to Discussion Questions

1. Reasons to choose a newspaper ad: To attract new business, advertise sales, introduce unique products or services.

Reasons not to choose a newspaper ad: May be expensive, circulation may be low, may not reach people you want to reach.

Reasons to choose the Yellow Pages: To help people who want to buy electrical construction services choose a business, because it is a well-known medium.

Reasons not to choose the Yellow Pages: May take too long before a new phone book comes out, may be too expensive.

Reasons to choose a business card: It is handy, it is not expensive.

Reasons not to choose a business card: You may soon expect some changes in your business name, location, etc.

2. An ad can be liked more by some customers than by others. For example, saving money will have more appeal to some customers than increasing the beauty or comfort of their home, while other customers will be more interested in beauty and comfort than cost. What you can do: Advertise in more than one way. Write an ad to address several different needs. Write different ads to appeal to different needs.

3. Skywriting--Pros: It may be seen by people in isolated areas; it is a unique way to advertise. Cons: It may be expensive. It may not appeal to conservative people.

Television--Pros: It could give a realistic idea of the kind of electrical work Joseph can do. Cons: It is likely to be expensive; it will not reach people who are outside the broadcast area or who don't have television sets.

Direct mail--Pros: It can be directed specifically at those people who are likely to need electrical services. Cons: It may be fairly expensive.

IV. Group Activity

The purpose of this activity is to give students practice in designing a printed ad for a business based on providing electrical construction services.

The teacher should give students feedback on each element of their ad, addressing the following points:

- a. Headline--Does it express the major single idea about R-W Electric's special services? Is it the right length? Does it have the right mood to attract the kind of customers Richard and Jeff want?
- b. Copy--Does the copy give the basic facts about the business? Does it include the right amount of detail? Does it emphasize the special services offered and the types of customers who need them? Does it appeal to important customer needs?
- c. Illustration--Is there a picture, logo, etc. that is easy to recognize and remember? Does it catch the reader's eye? Does it reflect the types of services and products R-W Electric offers? Is it clear and well done?
- d. Identification--Does the ad identify the business name, address, phone number, owners' names? Does it indicate the hours, credit policy, etc.?
- e. Layout--Does the arrangement of the elements and use of white space make the ad easy to read? Does it catch the eye and stimulate the reader to look at all parts of the ad?

The teacher should also discuss with students: (a) whether their ad is appropriate for the medium they chose (Yellow Pages, newspaper, or direct mail); (b) what the ad is likely to cost and whether it is worth the benefits it will provide; (c) possible ways to change the ad to reduce its price, if necessary.

Unit 8 - Keeping Financial Records (1 class period)

- I. Case Study: Richard and Jeff set up an accounting system for their contract work based on the percentage of each job completed. They bill contractors at the end of each month. They fill out a daily cash sheet to keep track of revenues and expenses each day.
- Text: The Importance of Good Financial Recordkeeping
Planning Your Recordkeeping
Handling Credit
Daily Cash Sheet

II. Responses to Individual Activities

1. To keep track of money coming in. To keep track of money going out. To help in writing financial reports. To help in making business decisions.

2.

CUSTOMER BILLING FORM					
Customer: <u>Arbogast Contractors</u>			Work Completed: <u>50%</u>		
<u>1177 Elm</u>			As of Date: <u>8/31</u>		
<u>Rosewood</u>			Payment Due: <u>9/15</u>		
Billing Date	Description of Service	Amount Charged	Previous Payment Received	Percentage Payment Due	Remainder to be Billed
7/31	Electrical Installation as per Contract #1344-G	\$5,000	0	\$1,000	\$4,000
8/31	SAME	\$2,500	\$1,000	\$1,500	\$2,500

3.

DAILY CASH SHEET			
R-W ELECTRIC			
Date: <u>Aug. 31, 19XX</u>			
REVENUES	EXPENSES		
Cash Sales	\$ 350	Salaries	\$ <u>500</u>
Credit Sales	1,000	Building Expenses	_____
		Tools and Equipment	_____
		Materials	_____
		Advertising	<u>125</u>
		Vehicle Expenses	_____
		Other	_____
TOTAL REVENUES	\$1,350	TOTAL EXPENSES	\$ <u>625</u>

III. Response to Discussion Question

Conditions under which cash is preferred: For small jobs; when you are not confident the customer will pay promptly; when you must pay a lot for materials.

Conditions under which credit is preferred: For good, trusted customers; for jobs that are very large; when the competition gives credit; when an employee is handling the payment rather than the business owner.

IV. Group Activity

This activity is designed to give students practice in considering the types of positive and negative decisions they would need to make as a construction electrician or electrical contractor based on the information in their financial records.

Possible decisions to make when the business is doing well:
Hire more employees; take a larger salary for yourself; accept larger jobs; take a vacation.

Possible decisions to make when the business is losing money:
Lay off employees; take a smaller salary; get a bank loan; work longer hours.

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

- I. Case Study: Richard and Jeff find that their profit ratio was higher for their second year of business than for the first year. However, they want to do a higher volume of business. They decide to expand the supply sales part of their business and to raise their labor prices for electrical subcontract work.

Text: How to Measure Financial Success
How to Make Your Business More Successful
Getting Information to Change Your Business
Profit and Personal Satisfaction

II. Responses to Individual Activities

1. The profit ratio tells you the percentage of total sales you kept as profit. The expense ratio tells you the percentage of total sales that you paid for business expenses.
2. Increase sales. Reduce expenses. Raise prices.

3.

TWO-YEAR PROFIT/LOSS STATEMENT				
Waramatsu Electrical Contractors, Inc.				
	Year 1		Year 2	
	\$	%	\$	%
<u>Revenues</u>	\$100,000	100%	\$150,000	100%
<u>Cost of Goods Sold</u>	50,000	50%	75,000	50%
<u>Gross Profit</u>	\$ 50,000		\$ 75,000	
<u>Expenses</u>	\$ 30,000	30%	\$ 45,000	30%
<u>Net Profit</u>	\$ 20,000	20%	\$ 30,000	20%

4. Yes, revenues and profits rose, and the profit ratio remained stable. The business is staying successful. Assuming there is one owner, a net profit of \$30,000 (Year 2) is fairly good.
5. Reduce the number of clerical employees. Use the owner's home for business rather than renting a separate location.

III. Responses to Discussion Questions

1. Both level of profit and personal satisfaction are important, though some people may give more weight to the former and others to the latter.
2. Electricians or contractors may want to keep their businesses small because: (a) they want to specialize in services for which there is limited demand; (b) they want to do electrical work more than supervising or managing; or (c) they are satisfied with the existing profit and do not need to expand in order to stay successful.
3. More competition; customers are not satisfied with the work; prices are too high; not enough advertising; low demand for those services at the moment, etc.

IV. Group Activity

This activity is designed to acquaint students with a real-life construction electrician business owner. The interview will help students evaluate the career of a construction electrician business owner and decide whether they are interested in this career. They will also be able to compare their abilities and personalities with those of a successful construction electrician business owner and decide whether they are suited to small business ownership.

This activity will help students see how businesses must change over time in order to stay successful. Hopefully, students will also be made aware of the high potential for failure if a business does not change to meet the changing needs of its customers.

This activity, which will probably be of high interest to students, will require extra time.

Summary (15-30 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:

- Construction electricians can use their skills to become independent electricians or electrical contractors.
- Good skills in the electrical construction trade and an ability to manage your own business are necessary qualities for a construction electrician business owner to have.
- As construction costs and procedures change, you may need to change your business to stay successful.

Remind students that their participation in 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 not 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 would be 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 the learning that the module as a whole is designed to provide.

- You might use one or more of the Group Activities that were not covered earlier. Feel free to combine or expand them so that students can consider all the aspects of running a small construction electrician business.
- Possible activity: Have students develop a "scenario" or structured fantasy of themselves in the future running a construction electrician business. Students can write or discuss the characteristics of their own business, from the services provided and

its name and location to the procedures they would use to keep records, advertise, and maximize profits.

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. b
2. c
3. c
4. a
5. b
6. b
7. c
8. c
9. b
10. a
11. Have the employee watch you work. Watch the employee work and comment or help as needed. Have the employee take a course and read books on installing electrical fixtures.
12. Cost of materials. Cost of labor. Total price of the job.
13. c
14. Cost of materials (cost of goods sold); cost of labor; cost of sub-contracts; profit desired; competition; demand.
15. a
16. d
17. a

18. b

19. d

20. c

21. Raise prices. Cut expenses. Increase sales.

22. c



SUGGESTED READINGS

General Entrepreneurship References

- Holt, N., Shuchat, J., & Regal, M. L. Small business management and ownership. Belmont, MA: CRC Education and Human Development, Inc., 1979.
- Jeanneau, J. A. Small business management: Instructor's manual (4 vols.). Prince Albert, Saskatchewan: Department of Manpower & Immigration, Training Research and Development Station, 1973.
- National Business Education Association. Business ownership curriculum project for the prevocational and exploratory level (grades 7-9): Final report. Reston, VA: Author, 1974.
- Nelson, R. E., Leach, J. A., & Scanlan, T. J. Owning and operating a small business: Strategies for teaching small business ownership and management. Urbana, IL: University of Illinois, Department of Vocational/ Technical Education, Division of Business Education, 1976.
- Rowe, K. L., & Hutt, R. W. Preparing for entrepreneurship. Tempe, AZ: Arizona State University, College of Business Administration, 1979.

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- Bank of America. Small business reporter: Building contractors, 14(3), San Francisco: Author, 1978.
- Office of Minority Business Enterprise. Urban business profiles: Contract construction. Washington, D.C.: U.S. Department of Commerce, 1972.
- Sumichrast, M., & McMahon, C. P. Opportunities in-building construction trades. Skokie, IL: VGM Career Horizons, 1976.
- Wood, R. Opportunities in electrical trades. Skokie, IL: VGM Career Horizons, 1974.

Acknowledgment: Dennis Parker, Redwood City Electric Company, Redwood City, California

GOALS AND OBJECTIVES

Goal 1: To help you plan a small business as a construction electrician.

Objective 1: Describe the services, customers, and competition of a construction electrician business.

Objective 2: List three personal qualities the owner of a construction electrician business should have.

Objective 3: List two ways to help a construction electrician business "stand out" from its competition.

Objective 4: List two special legal requirements for running a business as a construction electrician.

Goal 2: To help you choose a location for a construction electrician business.

Objective 1: List three things to think about in deciding where to locate a construction electrician business.

Objective 2: Pick the best location for a construction electrician's business from three choices and explain your choice.

Goal 3: To help you plan how to borrow money to start a construction electrician business.

Objective 1: Write a business description for a construction electrician business.

Objective 2: Fill out a form showing how much money you need to borrow to start a business as a construction electrician.

Goal 4: To help you learn about managing work and people in a construction electrician business.

Objective 1: Decide how to divide the work of a construction electrician business among several people.

Objective 2: Pick the best person for a specific job in your construction electrician business.

Objective 3: Describe one kind of training construction electricians might give their employees.

Goal 5: To help you organize the work of a construction electrician business:

Objective 1: On a work order form, list what needs to be done for a customer.

Objective 2: Plan a work schedule for an electrical contracting business owner or employee.

Goal 6: To help you decide how to set prices for a construction electrician business.

Objective 1: Pick the best price for one of the services of a construction electrician business.

Goal 7: To help you learn ways to advertise and sell the services of a construction electrician business.

Objective 1: Pick one way to advertise a construction electrician business.

Objective 2: Write an ad for a construction electrician business.

Objective 3: Describe one way to sell the services of a construction electrician business.

Goal 8: To help you learn to keep financial records for a construction electrician business.

Objective 1: Fill out a customer billing form for the services of a construction electrician.

Objective 2: Fill out a daily cash sheet for money a construction electrician receives and pays out in one day.

Goal 9: To help you learn how a construction electrician business can stay successful.

Objective 1: Determine the net profit, profit ratio, and expense ratio for a construction electrician business.

Objective 2: State one way to increase profits.

Objective 3: State one way a construction electrician business can be changed to increase sales.