Profit and Loss Statements

Unit: Entrepreneurial Opportunities in the Culinary Business

Problem Area: Food Cost Accounting

Lesson: Profit and Loss Statements

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. **Define profit and loss statement terms.**
2. **Complete a simple profit and loss statement.**

Resources. The following resources may be useful in teaching this lesson:

Collins, James. “How to Calculate the Depreciation for Restaurant Equipment,” *eHow*™. Accessed Oct. 28, 2011. <http://www.ehow.com/how_7622274_calculate-depreciation-restaurant-equipment.html>.

Fullen, Sharron. *Opening a Restaurant or Other Food Business Starter Kit: How to Prepare a Restaurant Business Plan & Feasibility Study with CD-ROM.* Atlantic, 2004.

“The Income Statement,” *How to Open a Restaurant Guide*. Accessed Oct. 28, 2011. <http://startingarestaurantguide.com/accounting/62-the-income-statement>.

“Income Statement Analysis,” *About.com: Investing for Beginners*. Accessed Oct. 28, 2011. <http://beginnersinvest.about.com/od/incomestatementanalysis/Income_Statement_Analysis.htm>.

McBride, Carter. “How to Calculate Income Statements,” *eHow*™. Accessed Oct. 28, 2011. <http://www.ehow.com/how_6329452_calculate-income-statements.html>.

Plewa, Jr., Franklin J., and Gerorge T. Friedlob. *Understanding Income Statements*. Wiley, 1995.

"The Profit and Loss Statement: What Does It Mean?" *The Ohio State University Fact Sheet*. Accessed Oct. 28, 2011. <http://ohioline.osu.edu/cd-fact/1153.html>.

Schmidgall, Raymond S., David K. Hayes, and Jack D. Ninemeier. *Restaurant Financial Basics.* Wiley, 2002.

Equipment, Tools, Supplies, and Facilities

- ✓ Overhead or PowerPoint projector
- ✓ Visual(s) from accompanying master(s)
- ✓ Copies of sample test, lab sheet(s), and/or other items designed for duplication
- ✓ Materials listed on duplicated items
- ✓ Computers with printers and Internet access
- ✓ Classroom resource and reference materials
- ✓ Calculator

Key Terms.

The following terms are presented in this lesson (shown in bold italics):

- breakeven
- controllable expenses
- cost of goods sold (COGS)
- cost of sales
- costs
- depreciation
- expenses
- gross
- gross profit
- income
- income statement
- loss
- net
- net profit
- non-controllable expenses
- operating profit
- P & L sheet
- payroll
- prime cost
- profit
- profit and loss sheet (P & L)
- revenue

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

> *Ask students the following questions: What is the financial goal of a restaurant? (The likely response will be "to make a profit.") How do you know if you have made a profit?*

> *Continue the discussion by prodding students to articulate what they believe about profit. Is profit the amount of money in the register or in the bank? Hopefully a student will bring "cost" into play. If not, bring it up quizzically, asking, "Do you think cost plays a role in profit?" Steer them towards the answer "yes." Then ask, "How do you know how much all the costs total?" "How will you know if you have made more than enough money to meet those costs (profit)?"*

> *Encourage students to think through the problem verbally. After enough time, explain that an accounting form called a profit and loss statement (sheet) is a tool to get a business organized. It is a formal structure to list all the information needed to know if a profit has been made.*

CONTENT SUMMARY AND TEACHING STRATEGIES

Objective 1: Define profit and loss statement terms.

Anticipated Problem: What is a profit and loss statement? What are the common terms used in a profit and loss sheet?

I. Purpose and terms

A. Profit and loss statement, ***profit and loss sheet***, ***P & L sheet***, and ***income statement*** all describe the same document: a financial statement that summarizes the revenues, costs, and expenses during a specific period of time—usually a fiscal quarter or year. The P & L sheet provides a "snapshot" of finances for the time period chosen. The goal of a P & L statement is to show the result of all the financial transactions that occurred for a business in a given period of time. It shows whether a profit or a loss occurred. P & L terms are:

1. ***Income*** and ***revenue*** are gains (dollars) brought in through sales by a specific business or department during a specific period of time.
2. ***Costs*** and ***expenses*** (expenditures) are dollars spent to purchase goods and services for sale by a business or department during a specific period of time.

Costs include materials or goods, operating expenses (e.g., salaries), taxes, and interest paid on loans.

3. ***Profit*** is the amount of money (revenue) gained by a business after all the costs (expenses) have been paid. Profit equals the total revenue minus the total expenses.
4. ***Loss*** is an instance in which an insufficient amount of revenue was taken in during a time period to cover all the expenses. Therefore, more money was paid out than was received.
5. ***Breakeven*** is a point at which no profit or loss occurs. So the same amount of money was taken in as was spent.

B. Profit or revenue

1. ***Gross*** is the sum or the amount of revenue received before deductions (the cost of the goods sold).
2. ***Gross profit*** (gross income) is revenue (income) minus the cost of the goods sold. Gross profit can reflect different amounts based on how it is used. P & L statements must be read carefully. Some people use the term to reflect gross revenue or all the money taken in before any costs are paid. In the foodservice industry, it is more common to see the term used to reflect the money remaining after food and beverage costs have been paid (but no other expenses). Taking the cost of food off the top of income and considering it gross profit is accepted because there would have been no income without food sales, and food had to be purchased before it could be sold. It is an essential expense to make the sale, and what is left is gross profit.
3. ***Net*** is the clear gain; it is the amount remaining after costs are paid.
4. ***Net profit*** (net income or the bottom line) is the total amount of money remaining or lost after all expenses are paid. Net profit can be thought of as revenue minus the cost of doing business (e.g., depreciation, taxes, and interest).
   a. The net profit can be a negative number; it can represent a loss if expenses exceed revenue.
   b. The net profit is commonly shown before taxes (the last expense that needs to be paid). This is common as businesses pay tax on the net profit.
   c. Net profit before taxes is operating profit minus non-controllable expenses. At this point on the P & L, the input and calculations are complete. The total revenue has been shown—minus all the expenses—and what is left is profit (money left over) or loss (insufficient revenue to pay all expenses).

C. Costs or expenses

1. ***Cost of sales*** or ***cost of goods sold*** (COGS) is the total dollars spent in the production of the goods the business sells (e.g., food and beverage). The amount it costs the business to purchase the materials (COGS) plus produce the goods (labor) is the prime cost. With gross profit generally indicating the dollars left after food has been paid for, the initial expense of food and beverages is important to recognize.

2. ***Payroll*** is the sum of all compensation paid by a business to its employees: salaries, benefits (e.g., insurance), and taxes (e.g., Worker's Compensation and unemployment).
3. Many other types of costs are paid by businesses. They are each broken down and shown individually to illustrate where the business is spending its money. Those costs can usually be broken into two subcategories: controllable and uncontrollable expenses. Each subcategory is usually totaled as a "group" or "category" and then totaled to find the sum of all costs.
    a. ***Controllable expenses*** are costs for which management makes decisions to spend or not spend dollars or decides how much to spend: negotiable costs. Controllable expenses are expenditures that are not essential or are in some way controllable (e.g., how much was purchased).
        (1) Salaries and benefits
        (2) Advertising
        (3) Accounting and linen services
        (4) Office and cleaning supplies
        (5) Maintenance
        (6) Utilities
        (7) Repairs
        (8) Entertainment
    b. ***Non-controllable expenses*** are fixed costs; they are the cost of doing business and are only minimally controllable or able to be manipulated.
        (1) Rent or mortgage
        (2) Taxes
        (3) Insurance
        (4) Business licenses and permits
        (5) Loan payments
        (6) ***Depreciation*** is the amount of value lost by an asset (property: tools, equipment, and furniture) during a set period of time. It is considered a non-controllable cost because the oven that was worth $10,000 last year may only be worth $8,900 this year because of wear and tear, resulting in a loss or expense of $1,100. Depreciation is listed on its own or under non-controllable costs on the P & L.

D. Other financial data on an income statement
1. ***Prime cost*** is the cost of goods sold plus the payroll costs.
2. ***Operating profit*** is the gross profit minus the payroll minus the controllable costs.

E. Format
1. New headings and subheadings are usually indented to effectively start a new area or spreadsheet column. Using indents makes a document easier to read.
2. At the end of the financial input, it is typical to insert a line to indicate the reader is at the end of the input. Totals are shown below the line.

3. Net profit is entered at the end of the document and is double-underlined, indicating it is the "bottom line" or the final result of all computations.

Teaching Strategy: *Use VM–A. Assign LS–A.*

Objective 2: Complete a simple profit and loss statement.

Anticipated Problem: How can profit and loss sheets be completed?

II. P & L template

A. An endless number of pre-designed income statement templates are available for various business uses. The basic format of most P & L statements is largely the same (for all businesses) and can be easily customized for the specific needs of an individual business. Whether designing one from scratch or using a provided template, the basic structure is the following:

B. Top of the statement

1. Line 1: Title—Profit and Loss Statement, P & L Sheet, Income Statement, etc.
2. Line 2: Name of the business
3. Line 3: Time period of the document
    a. From _____ to _____
    b. Begin date _____ end date _____
    c. Month ending _____ 20 _____

C. Categories

1. Sales, Income, or Revenue
    a. Food $_____
    b. Beverage $_____
    c. Liquor $_____
    d. Gift shop $_____
    e. Total sales (a + b + c + d) $_____
2. Cost of Goods Sold (COGS) or Cost of Sales
    a. Food $_____
    b. Beverage $_____
    c. Other $_____
    d. Total cost of goods sold (a + b + c) $_____
3. Gross Profit: Total Sales Minus Total COGS $_____
4. Payroll
    a. Salaries and wages $_____
    b. Payroll taxes and benefits $_____
    c. Total payroll (a + b) $_____
5. Prime Cost = COGS + Total Payroll $_____

6. Controllable Expenses
   a. Salaries
   b. Benefits $_____
   c. Advertising $_____
   d. Utilities $_____
   e. Other $_____
   f. Total controllable expenses $_____
7. Operating Profit: Gross Profit Minus Payroll Minus Controllable Expenses $_____
8. Non-Controllable Expenses
   a. Rent $_____
   b. Mortgage $_____
   c. Insurance $_____
   d. Depreciation $_____
   e. Other $_____
   f. Total non-controllable expenses $_____
9. Net Profit (before taxes): Operating Profit Minus Non-Controllable Expenses $_____
   a. If net profit results in a negative number, a loss has occurred and is shown in parenthesis as in (1,500).
   b. If net profit results in a positive number, a real profit has been made and is simply shown as the number without parenthesis.

Teaching Strategy: *Use VM–B. Assign LS–B.*

Review/Summary. Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used in determining which objectives need to be reviewed or taught from a different angle. Questions at the ends of chapters in the textbook may also be used in the Review/Summary.

Application. Use the included visual master(s) and lab sheet(s) to apply the information presented in the lesson.

Evaluation. Evaluation should focus on student achievement of the objectives for the lesson. Various techniques can be used, such as student performance on the application activities. A sample written test is provided.

Answers to Sample Test:

Part One: Short Answer

1. In some businesses, gross profit is total revenue or all income from sales. In a foodservice, it is common that gross profit is total revenue after food and beverage cost has been paid, as those items had to be purchased to make the sales that brought in revenue.
2. Cost of sales reflects the dollars spent on food and beverages purchased to make a sale; it is the cost incurred to make the sale.
3. The P & L sheet provides a "snapshot" of finances that reflect the time period chosen. The goal of a P & L statement is to show the result of all the financial transactions that occurred for a business in a given period of time. It typically shows that a profit or a loss occurred.

Part Two: Multiple Choice

1. a
2. b
3. d
4. d
5. b
6. a

Part Three: True/False

1. T
2. F
3. F
4. T
5. T
6. T

Sample Test

Name ______________________________

Profit and Loss Statements

Part One: Short Answer

Instructions: **Answer the following.**

1. What is typically viewed as "Gross Profit" for a foodservice?

2. What does the term "cost of sales" mean?

3. What is the purpose of a P & L Statement?

Part Two: Multiple Choice

Instructions: **Circle the letter of the correct answer.**

1. Another word for "income" is _____.

   a. revenue
   b. profit
   c. prime cost
   d. None of the above

2. The cost of the food sold is _____.

   a. prime cost
   b. the dollars paid to purchase food to be sold
   c. operating profit
   d. breakeven

3. Net profit _____.

   a. is the money left after food costs are paid
   b. is the money left after payroll costs are paid
   c. is the money left after controllable costs are paid
   d. could be a negative number

4. Payroll expenses include _____.

   a. linen service
   b. taxes and benefits
   c. loan payments
   d. All of the above

5. “Non-controllable” costs include all of the following *except* _____.

   a. utilities
   b. insurance
   c. rent
   d. depreciation

6. All of the following categories could potentially be listed as “Revenue” *except* _____.

   a. cost of goods sold
   b. food
   c. beverages
   d. gift shop

Part Three: True/False

Instructions: **Write *T* for true or *F* for false.**

_____1. Prime costs are equal to the cost of goods sold plus labor costs.
_____2. Income statements reflect a one week time period.
_____3. The time frame for the P & L sheet is shown at the bottom of the form.
_____4. Breakeven occurs when costs equal revenue.
_____5. Net profit is the final entry on an income statement; it is the bottom line.
_____6. Advertising and cleaning supplies are controllable costs.

PROFIT AND LOSS STATEMENT OR P & L TERMS

- Income—Revenue
- Costs—Expenses
- Profit—Money remaining after all expenses are paid
- Loss—More money was paid out than was received
- Breakeven—No profit or loss (sales = costs)
- Gross profit—Income (COGS)
- Net profit—Final result of P & L; the bottom line
- Cost of goods sold (COGS)/cost of sales—Cost to produce the product (e.g., materials and labor)
- Payroll—All costs associated with employees (e.g., wages, benefits, and taxes)
- Controllable expenses—Negotiable costs (e.g., salaries and advertising)
- Non-controllable expenses—Fixed costs (e.g., rent, taxes, and insurance)
- Depreciation—Shrinking value of tools and equipment

VM–B

INCOME STATEMENT TEMPLATE

Income Statement

Any Business, USA

From: ______________________ **to:** ______________________

Sales

Food		$	______________________	+
Beverage		$	______________________	+
*Other		$	______________________	+
Total sales	=	$	______________________	

Cost of Goods Sold

Food		$	______________________	+
Beverage		$	______________________	+
*Other		$	______________________	+
Total cost of goods sold	=	$	______________________	

Gross Profit:

total sales – COGS	=	$	______________________

Payroll

Salaries		$	______________________	+
Taxes and benefits		$	______________________	+
Total payroll expenses	=	$	______________________	

Prime Cost: COGS + total payroll = $____________________

Controllable Expenses

Advertising	$____________________	+
Utilities	$____________________	+
Cleaning supplies	$____________________	+
*Other	$____________________	+
Total controllable expenses =	$____________________	

Operating Profit: gross profit – total payroll – controllable expenses =
$____________________

Non-Controllable Expenses:

Mortgage/rent	$____________________	+
Insurance	$____________________	+
Depreciation	$____________________	+
*Other	$____________________	+
Total non-controllable expenses =	$____________________	

Net Profit before taxes: operating profit—non-controllable expenses
$____________________

*"Other" is a reminder to add as many lines as required based on specific subcategories within a category.

Name ______________________________

P & L Terminology

Purpose

The purpose of this activity is to practice defining terminology specific to P & L statements.

Objectives

1. Match each P & L term to its definition.
2. Write responses to clarify the differences between P & L terms.

Materials

- lab sheet
- writing utensil
- computer with Internet access
- textbook or reference materials

Procedure

1. Work independently to complete the following P & L terminology activities.
2. Match each P & L term to its definition. Place the corresponding letter of the definition in the space provided.

Definitions

A. Less income than expenses
B. Loss of value over time
C. No profit or loss
D. Employee wages and benefits
E. Final result of P & L
F. Profit and loss sheet
G. Income
H. More revenue than expenses
I. Negotiable expenses
J. Cost to produce a product
K. Income minus COGS
L. Fixed costs

P & L Terms

1. _____ Revenue
2. _____ Net profit
3. _____ Payroll
4. _____ Cost of sales (COGS)
5. _____ Breakeven
6. _____ Controllable expenses
7. _____ Profit
8. _____ Income statement
9. _____ Gross profit
10. _____ Non-controllable expenses
11. _____ Depreciation
12. _____ Loss

3. Write one or two sentences to answer the following P & L questions.

   a. What is the difference between operating profit, gross profit, and net profit?

   b. Give three examples of controllable expenses.

   c. What is included in the cost of goods and/or the cost of sales?

   d. What time period does a Profit and Loss Statement reflect?

P & L Terminology

Matching Key

1. Revenue = **G**
2. Net profit = **E**
3. Payroll = **D**
4. Cost of sales = **J**
5. Breakeven = **C**
6. Controllable expenses = **I**
7. Profit = **H**
8. Income statement = **F**
9. Gross profit = **K**
10. Non-controllable expenses = **L**
11. Depreciation = **B**
12. Loss = **A**

Short Answer Key

a. Gross profit is the revenue left after food and beverage costs are paid. Operating profit is gross profit minus payroll costs minus controllable costs; it is what is left after everything is paid other than the non-controllable costs. Net profit is what is left (if anything) after all costs are paid. Net profit can be a negative number (or a loss).

b. Controllable expenses are anything considered non-essential or negotiable and include the following: salaries and benefits, advertising, accounting and linen services, office and cleaning supplies, maintenance, utilities, repairs, entertainment, and other items discussed in class.

c. Cost of goods and/or cost of sales include all food, beverages, liquor, and other consumables purchased for resale and the labor involved in producing the item.

d. P & L Statements can reflect any period of time chosen (from day, to week, to month, to year). Typically, P & L Statements are produced quarterly and yearly.

Name ______________________________

Dingy's Diner and Drive-In Emporium P & L Statement

Purpose

The purpose of this activity is to apply the lesson content to complete a P & L Statement and fill in and compute an income statement with supplied financial data.

Objectives

1. Place financial data in the correct category on a P & L Statement.
2. Compute the category totals.
3. Compute the net profit.

Materials

- lab sheet
- calculator
- writing utensil

Procedure

1. Work independently or in pairs to complete the Dingy's Diner and Drive-In Emporium Profit and Loss Statement.
2. Below you will find the Raw Financial Data from Dingy's Diner. Use this information to fill in the P & L sheet. Total each category as required.

Raw Financial Data

Dates: April 1 to April 30

Beverage sales	$21,075
Mortgage	$36,550
Depreciation	$1,209
Food sales	$63,288
Utilities	$7,491
Insurance	$1,981
Cost of food	$17,983
Salaries	$22,771
Advertising	$1,375
Cost of liquor	$5,044
Cleaning supplies	$660
Taxes & benefits	$8,815
Liquor sales	$31,088
Linen service	$410
Cost of beverages	$2,205
Entertainment	$18,625

P & L Statement
Dingy's Diner and Drive-In Emporium

From: ____________________ **to:** ____________________

Sales

Food	$____________________	+
Beverage	$____________________	+
*Other __________	$____________________	+
Total sales	= $____________________	

Cost of Goods Sold

Food	$____________________	+
Beverage	$____________________	+
*Other __________	$____________________	+
Total cost of goods sold:	= $____________________	

Gross Profit: total sales – COGS = $____________________

Payroll

Salaries		$__________________ +
Taxes and benefits		$__________________ +
Total payroll expenses	=	$__________________

Prime Cost: COGS + total payroll = $__________________

Controllable Expenses

Advertising		$__________________ +
Utilities		$__________________ +
Cleaning supplies		$__________________ +
*Other __________		$__________________ +
*Other __________		$__________________ +
Total controllable expenses	=	$__________________

Operating Profit: gross profit – total payroll – controllable expenses
= $__________________

Non-Controllable Expenses:

Mortgage/rent		$__________________ +
Insurance		$__________________ +
Depreciation		$__________________ +
*Other __________		$__________________ +
Total non-controllable expenses	=	$__________________

Net Profit before taxes: operating profit – non-controllable expenses = $

**“Other” is a reminder to add as many lines as required based on specific subcategories within a category.*

3. Answer the following questions (based on the P & L Statement for Dingy's Diner) in a sentence or two.

   a. What was the net profit?

   b. What was the operating profit?

   c. How well is this restaurant performing financially? Explain your answer.

   d. Recommend two changes that would increase profits at this restaurant. Explain your answer.

   e. In your own words, define "profit."

   f. In which category did you place "entertainment" costs on the P & L? Why did you choose that category?

   g. In what way(s) has your view of "sales" compared to "profit" changed from this exercise?

Dingy's Diner and Drive-In Emporium P & L Statement

P & L Statement
Dingy's Diner and Drive-In Emporium
Anytown, USA
From: April 1 to: April 30

Sales	
Food	$63,288
Beverage	$21,075
Liquor	$31,088
*Other __________	$0
Total sales	$115, 481
Cost of Goods Sold	
Food	$17,983
Beverage	$2,205
Liquor	$5,044
*Other __________	$0
Total cost of goods sold	$25,232
Gross Profit	$90,158
Payroll	
Salaries	$22,771
Taxes and benefits	$8,815
Total payroll expenses	$31,586
Prime Cost	$56,818
Controllable Expenses	
Advertising	$1,375
Utilities	$7,491

Cleaning supplies	$660
Linen service	$410
*Other __________	$18,625
Total controllable expenses	$28,561
Operating Profit	$30,011
Non-Controllable Expenses	
Mortgage/rent	$36,550
Insurance	$1,981
Depreciation	$1,209
*Other __________	$0
Total non-controllable expenses	$39,740
Net Profit Before Taxes:	($9,729) (loss)

3. a. Net profit was – $9,729 or (9,729).
   b. The operating profit was $30,011.
   c. There is room for interpretation, but it is likely the restaurant is failing due to a near $10,000 loss in one month. How many months of that type of loss could the restaurant survive before closing?
   d. As this question was not a part of the formal lesson, please offer some room for student interpretation. They are easily spotted: 1) Entertainment needs to be dropped or cut drastically. 2) Utilities and payroll seem high, and cost saving measures in both categories would be worth considering. 3) Dingy's mortgage payment is very high; perhaps the loan could be refinanced. 4) Food and beverage costs appear reasonable, but sales could always be higher.
   e. Profit is the income remaining after all costs are paid. However, there are several ways to look at profit, including gross profit, net profit, and operating profit, all representing very different totals.
   f. Entertainment is a completely optional cost for any restaurant and, therefore, must be placed in the "Controllable Expenses" category.
   g. Expect a variety of responses. Look for a depth of understanding that reflects the former view that "sales" or money in the register WAS profit. The money was in-hand and belonged to the business. The current view accepts a myriad of financial obligations that need to be addressed before "profit" comes into the picture.