

LEADERSHIP FOR BUSINESS



Jamie Hammond
Western Technical College



Leadership for Business (Hammond)

Western
Technical College



I developed the new Leadership for Business course for the Business Management program at Western Technical College to follow the Operations Management course, building on foundational skills in task management, process optimization, supply chain management, and competitive strategy.

Students will gain essential expertise in operations leadership, including forecasting, inventory management, facility layout principles, and strategic decision-making. The course emphasizes critical thinking and ethical decision-making, empowering students to make informed, responsible choices. Additionally, it fosters a growth mindset, equipping students with the tools to navigate challenges and lead effectively.

This course provides a practical, cost-effective introduction in leading business operations, offering hands-on experience with real-world scenarios. By applying course principles, students will develop strong decision-making skills and implement effective solutions.

Jamie Hammond - Business Management program instructor

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1: Forecasting

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1.1: Overview and Guiding Questions

Forecasting

This section introduces students to **forecasting concepts** important to the Operations Manager's role.

Consider the following questions as you review the learning materials:

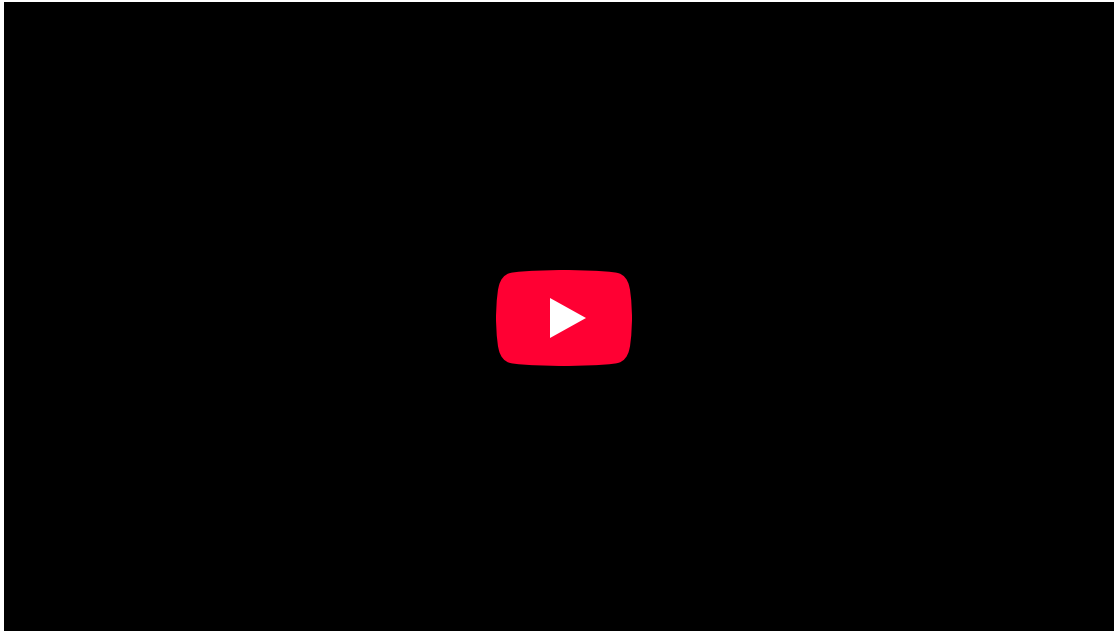
- What is the significance of accurate forecasting?
- How does qualitative forecasting differ from quantitative forecasting?
- What is time series forecasting?
- How are simple moving average forecasts calculated?
- How are weighted moving average forecasts calculated?

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1.2: What is Forecasting?

Process and Benefits of Forecasting

Begin by watching the following 5:04 video that provides a good introduction to the basics of forecasting in business:



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SECTION OVERVIEW

1.3: Forecasting

Key Concepts in Forecasting



Learning Objectives

- What is forecasting and why is it important? Understand the differences between qualitative and quantitative forecasting.
- Describe types of demand patterns exhibited in product demand.
- Calculate forecasts using time series analysis and seasonal index.
- Determine forecast accuracy.

1.3.1: Introduction to Forecasting

1.3.2: Qualitative Forecasting

1.3.3: Quantitative Forecasting

1.3.4: Causal (Econometric) Forecasting Methods (Degree)

1.3.5: Forecasting Assumptions and Demand Patterns

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1.3.1: Introduction to Forecasting

What is Forecasting?

Forecasting is the process of making predictions of the future based on past and present data. This is most commonly by analysis of trends. A commonplace example might be estimation of some variable of interest at some specified future date. Prediction is a similar, but more general term. Both might refer to formal statistical methods employing time series, cross-sectional or longitudinal data, or alternatively to less formal judgmental methods. Usage can differ between areas of application: for example, in hydrology, the terms “forecast” and “forecasting” are sometimes reserved for estimates of values at certain specific future times, while the term “prediction” is used for more general estimates, such as the number of times floods will occur over a long period.

Risk and uncertainty are central to forecasting and prediction; it is generally considered good practice to indicate the degree of uncertainty attached to specific forecasts. In any case, the data must be up to date in order for the forecast to be as accurate as possible. In some cases, the data used to predict the variable of interest is itself forecasted.^[1]

As discussed in the previous chapter, functional strategies need to be aligned and supportive to the higher level corporate strategy of the organization. One of these functional areas is marketing. Creating marketing strategy is not a single event, nor is the implementation of marketing strategy something only the marketing department has to worry about.

When the strategy is implemented, the rest of the company must be poised to deal with the consequences. An important component in this implementation is the **sales forecast**, which is the estimate of how much the company will actually sell. The rest of the company must then be geared up (or down) to meet that demand. In this module, we explore forecasting in more detail, as there are many choices that can be made in developing a forecast.

Accuracy is important when it comes to forecasts. If executives overestimate the demand for a product, the company could end up spending money on manufacturing, distribution, and servicing activities it won't need. Data Impact, a software developer, recently overestimated the demand for one of its new products. Because the sales of the product didn't meet projections, Data Impact lacked the cash available to pay its vendors, utility providers, and others. Employees had to be terminated in many areas of the firm to trim costs.

Underestimating demand can be just as devastating. When a company introduces a new product, it launches marketing and sales campaigns to create demand for it. But if the company isn't ready to deliver the amount of the product the market demands, then other competitors can steal sales the firm might otherwise have captured. Sony's inability to deliver the e-Reader in sufficient numbers made Amazon's Kindle more readily accepted in the market; other features then gave the Kindle an advantage that Sony is finding difficult to overcome.

The firm has to do more than just forecast the company's sales. The process can be complex, because how much the company can sell will depend on many factors such as how much the product will cost, how competitors will react, and so forth. Each of these factors has to be taken into account in order to determine how much the company is likely to sell. As factors change, the forecast has to change as well. Thus, a sales forecast is actually a composite of a number of estimates and has to be dynamic as those other estimates change.

A common first step is to determine market potential, or total industry-wide sales expected in a particular product category for the time period of interest. (The time period of interest might be the coming year, quarter, month, or some other time period.) Some marketing research companies, such as Nielsen, Gartner, and others, estimate the market potential for various products and then sell that research to companies that produce those products.

Once the firm has an idea of the market potential, the company's sales potential can be estimated. A firm's sales potential is the maximum total revenue it hopes to generate from a product or the number of units of it the company can hope to sell. The sales potential for the product is typically represented as a percentage of its market potential and equivalent to the company's estimated maximum market share for the time period. In your budget, you'll want to forecast the revenues earned from the product against the market potential, as well as against the product's costs.^[2]

Forecasting Horizons

Long term forecasting tends to be completed at high levels in the organization. The time frame is generally considered longer than 2 years into the future. Detailed knowledge about the products and markets are required due to the high degree of uncertainty. This

is commonly the case with new products entering the market, emerging new technologies and opening new facilities. Often no historical data is available.

Medium term forecasting tends to be several months up to 2 years into the future and is referred to as intermediate term. Both quantitative and qualitative forecasting may be used in this time frame.

Short term forecasting is daily up to months in the future. These forecasts are used for operational decision making such as inventory planning, ordering and scheduling of the workforce. Usually quantitative methods such as time series analysis are used in this time frame.

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1.3.2: Qualitative Forecasting

Qualitative Forecasting

Qualitative forecasting techniques are subjective, based on the opinion and judgment of consumers and experts; they are appropriate when past data are not available. They are usually applied to intermediate- or long-range decisions.

In the following, we discuss some examples of qualitative forecasting techniques:

Executive Judgement (Top Down)

Groups of high-level executives will often assume responsibility for the forecast. They will collaborate to examine market data and look at future trends for the business. Often, they will use statistical models as well as market experts to arrive at a forecast.

Sales Force Opinions (Bottom up)

The sales force in a business are those persons most close to the customers. Their opinions are of high value. Often the sales force personnel are asked to give their future projections for their area or territory. Once all of those are reviewed, they may be combined to form an overall forecast for district or region.

Delphi Method

This method was created by the Rand Corporation in the 1950s. A group of experts are recruited to participate in a forecast. The administrator of the forecast will send out a series of questionnaires and ask for inputs and justifications. These responses will be collated and sent out again to allow respondents to evaluate and adjust their answers. A key aspect of the Delphi method is that the responses are anonymous, respondents do not have any knowledge about what information has come from which sources. That permits all of the opinions to be given equal consideration. The set of questionnaires will go back and forth multiple times until a forecast is agreed upon.

Market Surveys

Some organizations will employ market research firms to solicit information from consumers regarding opinions on products and future purchasing plans.

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1.3.3: Quantitative Forecasting

Quantitative Forecasting

Quantitative forecasting models are used to forecast future data as a function of past data. They are appropriate to use when past numerical data is available and when it is reasonable to assume that some of the patterns in the data are expected to continue into the future. These methods are usually applied to short- or intermediate-range decisions. Some examples of quantitative forecasting methods are causal (econometric) forecasting methods, last period demand (naïve), simple and weighted N-Period moving averages and simple exponential smoothing, which are categorized as time-series methods. Quantitative forecasting models are often judged against each other by comparing their accuracy performance measures. Some of these measures include Mean Absolute Deviation (MAD), Mean Squared Error (MSE), and Mean Absolute Percentage Error (MAPE).

We will elaborate on some of these forecasting methods and the accuracy measure in the following sections.^[3]

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1.3.4: Causal (Econometric) Forecasting Methods (Degree)

Forecasting Methods

Some forecasting methods try to identify the underlying factors that might influence the variable that is being forecast. For example, including information about climate patterns might improve the ability of a model to predict umbrella sales. Forecasting models often take account of regular seasonal variations. In addition to climate, such variations can also be due to holidays and customs: for example, one might predict that sales of college football apparel will be higher during the football season than during the off-season.

Several informal methods used in causal forecasting do not rely solely on the output of mathematical algorithms, but instead use the judgment of the forecaster. Some forecasts take account of past relationships between variables: if one variable has, for example, been approximately linearly related to another for a long period of time, it may be appropriate to extrapolate such a relationship into the future, without necessarily understanding the reasons for the relationship.

One of the most famous causal models is **regression analysis**. In statistical modeling, regression analysis is a set of statistical processes for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables (or 'predictors'). More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'criterion variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed.

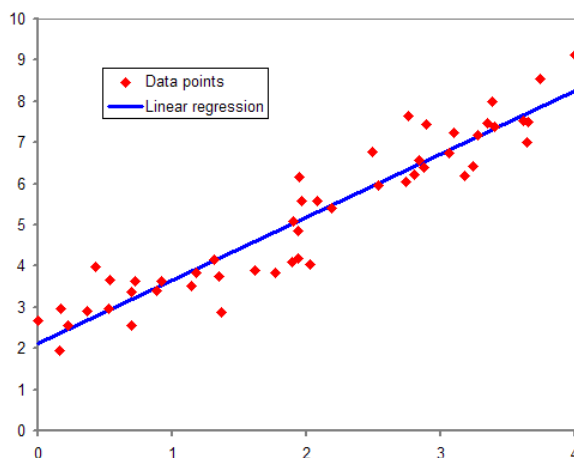


Figure 1.3.4.1: Example of regression analysis.

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1.3.5: Forecasting Assumptions and Demand Patterns

✓ Common Forecasting Assumptions:

1. Forecasts are rarely, if ever, perfect. It is nearly impossible to 100% accurately estimate what the future will hold. Firms need to understand and expect some error in their forecasts.
2. Forecasts tend to be more accurate for groups of items than for individual items in the group. The popular Fitbit may be producing six different models. Each model may be offered in several different colours. Each of those colours may come in small, large and extra large. The forecast for each model will be far more accurate than the forecast for each specific end item.
3. Forecast accuracy will tend to decrease as the time horizon increases. The farther away the forecast is from the current date, the more uncertainty it will contain.

Demand Patterns

When we plot our historical product demand, the following patterns can often be found:

Trend – A trend is consistent upward or downward movement of the demand. This may be related to the product's life cycle.

Cycle – A cycle is a pattern in the data that tends to last more than one year in duration. Often, they are related to events such as interest rates, the political climate, consumer confidence or other market factors.

Seasonal – Many products have a seasonal pattern, generally predictable changes in demand that are recurring every year. Fashion products and sporting goods are heavily influenced by seasonality.

Irregular variations – Often demand can be influenced by an event or series of events that are not expected to be repeated in the future. Examples might include an extreme weather event, a strike at a college campus, or a power outage.

Random variations – Random variations are the unexplained variations in demand that remain after all other factors are considered. Often this is referred to as noise.

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1.3.6: Time Series Methods

Time Series Methods

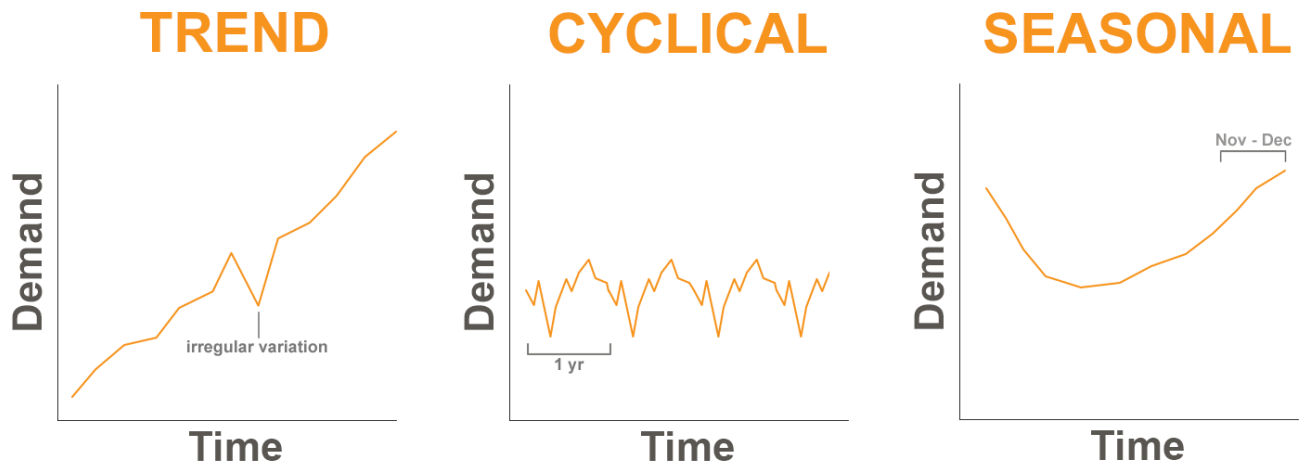


Figure 1.3.6.1: Diagram of trend, cyclical, and seasonal demand patterns.

Time series methods use historical data as the basis of estimating future outcomes. A time series is a series of data points indexed (or listed or graphed) in time order. Most commonly, a time series is a sequence taken at successive equally spaced points in time. Thus, it is a sequence of discrete-time data. Examples of time series are heights of ocean tides, counts of sunspots, and the daily closing value of the Dow Jones Industrial Average.

Time series are very frequently plotted via line charts. Time series are used in statistics, signal processing, pattern recognition, econometrics, mathematical finance, weather forecasting, earthquake prediction, electroencephalography, control engineering, astronomy, communications engineering, and largely in any domain of applied science and engineering which involves temporal measurements.^[4]

In the following, we will elaborate more on some of the simpler time-series methods and go over some numerical examples.

Naïve Method

The simplest forecasting method is the naïve method. In this case, the forecast for the next period is set at the actual demand for the previous period. This method of forecasting may often be used as a benchmark in order to evaluate and compare other forecast methods.

Simple Moving Average

In this method, we take the average of the last “n” periods and use that as the forecast for the next period. The value of “n” can be defined by the management in order to achieve a more accurate forecast. For example, a manager may decide to use the demand values from the last four periods (i.e., $n = 4$) to calculate the 4-period moving average forecast for the next period.

✓ Example 1.3.6.1

Some relevant notation:

D_t = Actual demand observed in period t

F_t = Forecast for period t

Using the following table, calculate the forecast for period 5 based on a 3-period moving average.

Period	Actual Demand
1	42
2	37

3	34
4	40

Solution

Forecast for period 5 = $F_5 = (D_4 + D_3 + D_2) / 3 = (40 + 34 + 37) / 3 = 111 / 3 = 37$

Here is a video explaining simple moving averages.

<https://www.linkedin.com/learning/forecasting-using-financial-statements/simple-moving-average>

Weighted Moving Average

This method is the same as the simple moving average with the addition of a weight for each one of the last “n” periods. In practice, these weights need to be determined in a way to produce the most accurate forecast. Let’s have a look at the same example, but this time, with weights:

✓ Example 1.3.6.2

Period	Actual Demand	Weight
1	42	
2	37	0.2
3	34	0.3
4	40	0.5

Solution

Forecast for period 5 = $F_5 = (0.5 \times D_4 + 0.3 \times D_3 + 0.2 \times D_2) = (0.5 \times 40 + 0.3 \times 34 + 0.2 \times 37) = 37.6$

Note that if the sum of all the weights were not equal to 1, this number above had to be divided by the sum of all the weights to get the correct weighted moving average.

Here is a video explaining weighted moving averages.

<https://www.linkedin.com/learning/forecasting-using-financial-statements/weighted-moving-average>

Exponential Smoothing

This method uses a combination of the last actual demand and the last forecast to produce the forecast for the next period. There are a number of advantages to using this method. It can often result in a more accurate forecast. It is an easy method that enables forecasts to quickly react to new trends or changes. A benefit to exponential smoothing is that it does not require a large amount of historical data. Exponential smoothing requires the use of a smoothing coefficient called Alpha (α). The Alpha that is chosen will determine how quickly the forecast responds to changes in demand. It is also referred to as the Smoothing Factor.

There are two versions of the same formula for calculating the exponential smoothing.

Here is version #1:

$$F_t = (1 - \alpha) F_{t-1} + \alpha D_{t-1}$$

Note that α is a coefficient between 0 and 1

For this method to work, we need to have the forecast for the previous period. This forecast is assumed to be obtained using the same exponential smoothing method. If there were no previous period forecast for any of the past periods, we will need to initiate this method of forecasting by making some assumptions. This is explained in the next example.

✓ Example 1.3.6.3

Period	Actual Demand	Forecast
1	42	
2	37	
3	34	
4	40	
5		

Solution

In this example, period 5 is our next period for which we are looking for a forecast. In order to have that, we will need the forecast for the last period (i.e., period 4). But there is no forecast given for period 4. Thus, we will need to calculate the forecast for period 4 first. However, a similar issue exists for period 4, since we do not have the forecast for period 3. So, we need to go back for one more period and calculate the forecast for period 3. As you see, this will take us all the way back to period 1. Because there is no period before period 1, we will need to make some assumption for the forecast of period 1. One common assumption is to use the same demand of period 1 for its forecast. This will give us a forecast to start, and then, we can calculate the forecast for period 2 from there. Let's see how the calculations work out:

If $\alpha = 0.3$ (assume it is given here, but in practice, this value needs to be selected properly to produce the most accurate forecast)

Assume $F_1 = D_1$, which is equal to 42.

Then, calculate $F_2 = (1 - \alpha) F_1 + \alpha D_1 = (1 - 0.3) \times 42 + 0.3 \times 42 = 42$

Next, calculate $F_3 = (1 - \alpha) F_2 + \alpha D_2 = (1 - 0.3) \times 42 + 0.3 \times 37 = 40.5$

And similarly, $F_4 = (1 - \alpha) F_3 + \alpha D_3 = (1 - 0.3) \times 40.5 + 0.3 \times 34 = 38.55$

And finally, $F_5 = (1 - \alpha) F_4 + \alpha D_4 = (1 - 0.3) \times 38.55 + 0.3 \times 40 = 38.985$

Period	Actual Demand	Forecast
1	42	42 (assumed = D_1)
2	37	$(1 - 0.3) \times 42 + 0.3 \times 42 = 42$
3	34	$(1 - 0.3) \times 42 + 0.3 \times 37 = 40.5$
4	40	$(1 - 0.3) \times 40.5 + 0.3 \times 34 = 38.55$
5		$(1 - 0.3) \times 38.55 + 0.3 \times 40 = 38.985$

Figure 1.3.6.2: Solution for Exponential Smoothing Version 1

□ Accessible format for Figure 1.3.6.2

Here is a video explaining exponential smoothing using EXCEL.

<https://www.linkedin.com/learning/search?keywords=exponential%20smoothing&u=2169170>

Here is version #2:

$$F_t = F_{t-1} + \alpha(D_{t-1} - F_{t-1})$$

✓ Example 1.3.6.4

Assume you are given an alpha of 0.3, $F_{t-1} = 55$

Solution

Period	Actual Demand	Forecast
1	60	55 (assumed)
2	55	$55 + 0.3 \times (60 - 55) = 56.5$
3	51	$56.5 + 0.3 \times (55 - 56.5) = 56.05$
4	58	$56.05 + 0.3 \times (51 - 56.05) = 54.53$
5		$54.53 + 0.3 \times (58 - 54.53) = 55.64$

Figure 1.3.6.3: Solution for Exponential Smoothing Version 2

□ Accessible format for Figure 1.3.6.3



Seasonal Index

Many organizations produce goods whose demand is related to the seasons, or changes in weather throughout the year. In these cases, a seasonal index may be used to assist in the calculation of a forecast.

✓ Example 1.3.6.5

Season	Previous Sales	Average Sales	Seasonal Index
Winter	390	500	$390 / 500 = .78$
Spring	460	500	$460 / 500 = .92$
Summer	600	500	$600 / 500 = 1.2$
Fall	550	500	$550 / 500 = 1.1$
Total	2000		

Using these calculated indices, we can forecast the demand for next year based on the expected annual demand for the next year. Let's say a firm has estimated that next year annual demand will be 2500 units.

Solution

Season	Anticipated annual demand	Avg. Sales / Season (2500/4)	Seasonal Factor	New Forecast
Winter		625	0.78	.78 x 625 = 487.5
Spring		625	0.92	.92 x 625 = 575
Summer		625	1.2	1.2 x 625 = 750
Fall		625	1.1	1.1 x 625 = 687.5
	2500			

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1.3.7: Forecast Accuracy Measures

Forecast Accuracy: Mean Absolute Deviation

Watch this video about Mean Absolute Deviation using EXCEL

Week	Sales	6 day average	Forecast error	Forecast error
1	\$ 20			
2	40			
3	50			
4	30			
5	60			
6	70			
7	50	\$ 45.00	\$ 5.00	\$ 5.00
8	80	50.00	30.00	30.00
9	40	56.67	(16.67)	16.67
10	20	55.00	(35.00)	35.00
11	30	53.33	(23.33)	23.33
12	50	48.33	1.67	1.67
15	Average			

In this section, we will calculate forecast accuracy measures such as **Mean Absolute Deviation (MAD)**, **Mean Squared Error (MSE)**, and **Mean Absolute Percentage Error (MAPE)**. We will explain the calculations using the next example.

✓ Example 1.3.7.1

The following actual demand and forecast values are given for the past four periods. We want to calculate MAD, MSE and MAPE for this forecast to see how well it is doing.

Note that $Abs(e_t)$ refers to the absolute value of the error in period t (e_t).

Period	Actual Demand	Forecast	e_t	$Abs(e_t)$	e_t^2	$[Abs(e_t) / D_t] \times 100\%$
1	63	68				
2	59	65				
3	54	61				
4	65	59				

Solution

Here are what need to do:

Step 1: Calculate the error as $e_t = D_t - F_t$ (the difference between the actual demand and the forecast) for any period t and enter the values in the table above.

Step 2: Calculate the absolute value of the errors calculated in step 1 [i.e., $Abs(e_t)$], and enter the values in the table above.

Step 3: Calculate the squared error (i.e., e_t^2) for each period and enter the values in the table above.

Step 4: Calculate $[Abs(e_t) / D_t] \times 100\%$ for each period and enter the value under its column in the table above.

Period	Actual Demand	Forecast	e_t	Abs (et)	e_t^2	[Abs (e_t) / D_t] x 100%
1	63	68	-5	5	25	7.94%
2	59	65	-6	6	36	10.17%
3	54	61	-7	7	49	12.96%
4	65	59	6	6	36	9.23%

Calculations for Accuracy Measures:

MAD = The average of what we calculated in step 2 (i.e., the average of all the absolute error values)

$$= (5 + 6 + 7 + 6) / 4 = 24 / 4 = \mathbf{6}$$

MSE = The average of what we calculated in step 3 (i.e., the average of all the squared error values)

$$= (25 + 36 + 49 + 36) / 4 = 146/4 = \mathbf{36.5}$$

MAPE = The average of what we calculated in step 4

$$= (7.94\% + 10.17\% + 12.96\% + 9.23\%) / 4 = 40.3/4 = \mathbf{10.075\%}$$

Here is a video on Mean Absolute Deviation using EXCEL

<https://www.linkedin.com/learning/search?keywords=mean%20absolute%20deviation%20&u=2169170>

1.3.7: Forecast Accuracy Measures is shared under a CC BY-NC 4.0 license and was authored, remixed, and/or curated by Jamie Hammond and Western Technical College.

1.3.8: End of Chapter Problems

End of Chapter Problems

Problem #1

Below are monthly sales of light bulbs from the lighting store.

Month	Sales
Jan	255
Feb	298
Mar	357
Apr	319
May	360
June	

Forecast sales for June using the following

1. Naïve method
2. Three- month simple moving average
3. Three-month weighted moving average using weights of .5, .3 and .2
4. Exponential smoothing using an alpha of .2 and a May forecast of 350.

Solution

1. 360
2. $(357 + 319 + 360) / 3 = 345.3$
3. $360 \times .5 + 319 \times .3 + 357 \times .2 = 347.1$
4. $350 + .2(360 - 350) = 352$

Problem #2

Demand for aqua fit classes at a large Community Center are as follows for the first six weeks of this year.

Week	Demand
1	162
2	158
3	138
4	190
5	182
6	177
7	

You have been asked to experiment with several forecasting methods. Calculate the following values:

- a) Forecast for weeks 3 through week 7 using a two-period simple moving average
- b) Forecast for weeks 4 through week 7 using a three-period weighted moving average with weights of .6, .3 and .1
- c) Forecast for weeks 4 through week 7 using exponential smoothing. Begin with a week 3 forecast of 130 and use an alpha of .3

Solution

Week	Demand	a)	b)	c)
1	162			
2	158			
3	138	$(162 + 158) / 2 = \mathbf{160}$		130
4	190	$(158 + 138) / 2 = \mathbf{148}$	$138 \times .6 + 158 \times .3 + 162 \times .1 = \mathbf{146.4}$	$130 + .3 \times (138 - 130) = \mathbf{132.4}$
5	182	$(138 + 190) / 2 = \mathbf{164}$	$190 \times .6 + 138 \times .3 + 158 \times .1 = \mathbf{171.2}$	$132.4 + .3 \times (190 - 132.4) = \mathbf{149.7}$
6	177	$(190 + 182) / 2 = \mathbf{186}$	$182 \times .6 + 190 \times .3 + 138 \times .1 = \mathbf{180}$	$149.7 + .3 \times (182 - 149.7) = \mathbf{159.4}$
7		$(182 + 177) / 2 = \mathbf{179.5}$	$177 \times .6 + 182 \times .3 + 190 \times .1 = \mathbf{179.8}$	$159.4 + .3 \times (177 - 159.4) = \mathbf{164.7}$

Problem #3

Sales of a new shed has grown steadily from the large farm supply store. Below are the sales from the past five years. Forecast the sales for 2018 and 2019 using exponential smoothing with an alpha of .4. In 2015, the forecast was 360. Calculate a forecast for 2016 through to 2020.

Year	Sales	Forecast
2015	348	360
2016	372	
2017	311	
2018	371	
2019	365	
2020		

Solution

Year	Sales	Forecast
2015	348	360
2016	372	$360 + .4 \times (348 - 360) = \mathbf{355.2}$
2017	311	$355.2 + .4 \times (372 - 355.2) = \mathbf{361.9}$
2018	371	$361.9 + .4 \times (311 - 361.9) = \mathbf{341.6}$
2019	365	$341.6 + .4 \times (371 - 341.6) = \mathbf{353.3}$
2020		$353.3 + .4 \times (365 - 353.3) = \mathbf{358.0}$

Problem #4

Below is the actual demand for X-rays at a medical clinic. Two methods of forecasting were used. Calculate a mean absolute deviation for each forecast method. Which one is more accurate?

Week	Actual Demand	Forecast #1	Forecast #2
1	48	50	50
2	65	55	56
3	58	60	55
4	79	70	85

Solution

Week	Actual Demand	Forecast #1	ErrorI	Forecast #2	ErrorI
1	48	50	2	50	2
2	65	55	10	56	9
3	58	60	2	55	3
4	79	70	9	85	6
		Mean Deviation:	Abs 5.75	Mean Deviation:	Abs 5

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1.3.9: References

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 4. Wikipedia contributors. (2019). Time series. In *Wikipedia, The Free Encyclopedia*. Retrieved on November 4, 2019, from https://en.Wikipedia.org/w/index.php?title=Time_series&oldid=934671965 ↵
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1.4: Excel Tutorials

Microsoft Excel

Microsoft Excel is an important tool for business leaders. It is especially helpful in making and communicating forecasting decisions.

To improve your proficiency in using Excel, access the following website: [Free Excel Tutorials](#)

The website contains a comprehensive collection of free tutorials that are designed to help users master Microsoft Excel. Tutorials include a wide range of topics, from basic spreadsheet navigation and data entry to more advanced features like formulas, functions, charts, and pivot tables. The tutorials are organized into easy-to-follow modules that include step-by-step instructions, visuals, and even interactive practice exercises. The tutorials are arranged in sections, as follows:

- Excel Basics: Sections 1 - 4
- Working with Cells and Sheets: Sections 5 - 12
- Formulas and Functions: Sections 13 - 16
- Working with Data: Sections 17 - 24
- Doing More with Excel: Sections 25 - 29

Practice replicating the forecasts from the End of Chapter Problems in section 1.3.8 of this textbook. Are you able to calculate the correct values?

Source

GFC Global: Excel Basics <https://edu.gcfglobal.org/en/excel/>

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CHAPTER OVERVIEW

2: Inventory Management

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2.1: Overview and Guiding Questions

Inventory Management

This section introduces students to **inventory management**, focusing on optimizing inventory levels.

Consider the following questions as you review the learning materials:

- What is the significance of having the appropriate amount of inventory?
- What types of inventory do organizations typically manage?
- What costs are associated with inventory?
- What does the Reorder Point represent?
- How can you determine the quantity of inventory to order?
- How does EOQ differ from EPQ?

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2.2: Introduction to Inventory Management

The Role of Inventory Management

Inventory management plays a crucial role in industrial operations by overseeing the material resources that generate future revenue for an organization. This responsibility falls under the purview of the Operations Manager. Consider a retail store selling various products like packaged foods, groceries, apparel, and electronics. Typically, not all merchandise is stored within the store premises. A portion of the stock is kept in a warehouse facility. The combined inventory, comprising goods in the store and warehouse at any given time, constitutes the total inventory

This chapter will explore inventory management models that deal with certain or known demands. These models aim to address two fundamental questions:

1. How many units to order
2. When to place the order for those units

The primary objective of inventory control or inventory management is to achieve satisfactory levels of customer service while keeping inventory costs reasonably low. Therefore, there is a trade-off between the amount of inventory held and the level of customer service provided.

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2.3: Types of Inventory

Identifying Types of Inventory

Organizations typically manage several types of inventory, including:

1. **Raw materials or purchased parts:** These are the basic components or materials required for production or assembly processes.
2. **Work in process (WIP) or work in progress:** These are semi-finished or partially completed items found in the middle of assembly lines and manufacturing facilities.
3. **Finished goods or merchandise:** These are the final products ready for sale and distribution to customers, commonly found in retail stores and warehouses.
4. **Spare parts, tools, and supplies:** These are additional inventory items required for maintenance, repair, and operational purposes within the organization.

Understanding and effectively managing these different types of inventory is crucial for organizations to ensure smooth operations, meet customer demand, and maintain optimal inventory levels. The inventory management models discussed in this chapter will provide insights and techniques to help organizations make informed decisions regarding order quantities and timing, ultimately leading to improved customer service and cost efficiency.

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2.4: Reasons for Maintaining Inventory

Why It's Important to Maintain Inventory

Organizations maintain inventory for various reasons, including:

- *In-Transit Inventory*: Inventory may be held simply because it is in transit and has not yet arrived at the facility. Since payment has been made for these goods, they are counted as part of the organization's inventory, referred to as in-transit inventory holding.
- *Preventing Stock-Outs*: One of the most common reasons for keeping inventory is to protect against stock-outs. When customers request to purchase a product, organizations aim to have sufficient stock available to meet the demand.
- *Leveraging Quantity Discounts*: Suppliers may offer quantity discounts for larger purchases. Although the organization may not immediately require the additional units, they may choose to purchase in bulk to take advantage of these discounts, resulting in excess inventory.
- *Smoothing Production Requirements*: Inventory can help organizations smooth out production requirements when demand fluctuates. During periods of low demand, they may produce more and stockpile inventory to avoid ramping up production excessively when demand increases again. This approach helps maintain a steadier production level, which is often more cost-effective.
- *Mitigating Operational Disruptions*: Maintaining inventory can help organizations cover for disruptions in specific production processes. In case of operational issues, having sufficient inventory on hand can prevent complete shutdowns or delays until the problem is resolved.
- *Cost Considerations*: In all these scenarios, organizations must carefully weigh the holding costs of inventory against other costs. For instance, if holding costs are high, they may prefer to risk occasional stock-outs rather than carrying excessive inventory. Alternatively, they may forgo supplier discounts if the total savings do not justify the additional inventory holding costs.
- *Inventory Management Models*: In inventory management, demand is classified as either known or steady versus uncertain. Several factors influence the choice of inventory model, including lead time and review time.
- *Lead Time*: Lead time refers to the duration between placing an order with a supplier and receiving the ordered goods. This factor plays a crucial role in determining the appropriate inventory model and ensuring timely replenishment.
- *Review Time*: Review time pertains to the frequency at which inventory levels are monitored. Two common approaches exist:
- *Continuous Review*: In this method, an information system continuously tracks inventory levels and triggers a reorder notification or automatically places an order when stock reaches a predetermined reorder point. This automated process eliminates manual intervention and ensures timely order placement with pre-established suppliers.
- *Periodic Review (Fixed Order Interval)*: Alternatively, inventory levels can be reviewed at fixed intervals. At the end of each interval, if the stock falls below a predetermined maximum level, an order is placed for the difference between the current stock and the maximum level. This approach allows for periodic adjustments based on actual demand patterns.
- *Additional Considerations*: Other factors, such as product perishability or obsolescence, may further complicate inventory models. For perishable items like food products, the product's lifespan must be carefully considered to avoid overstocking and subsequent waste or loss of inventory value due to expiration or obsolescence. Failing to account for these factors can result in significant financial losses.

While the above factors are fundamental to inventory management models, additional variables specific to an organization's operations or product characteristics may necessitate more intricate modeling approaches to optimize inventory levels and minimize costs.

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2.5: Relevant Costs

Types of Costs

The costs are usually defined separately for each item or Stock Keeping Unit (SKU). As a result, the optimal order quantities and the time of order are determined for each item specifically. The relevant costs that we have in any inventory management are as follows:

Total Purchasing or Acquisition Cost

Total purchasing or acquisition costs refer to the total expenditure incurred by an organization in procuring an item over a specific period, such as a year, quarter, or month. The time unit used for measurement depends on the organization's operational requirements.

In certain inventory models, this cost component may remain constant. This scenario arises when the total demand for the item remains unchanged throughout the period, and the supplier does not offer any quantity discounts. In such cases, the total acquisition cost or purchasing cost is fixed, as it does not vary based on the order quantities placed.

Consequently, in these scenarios, the total acquisition cost is often excluded from the mathematical models used to determine optimal order quantities. Since this cost component is fixed and does not change based on the order size, it does not influence the optimization calculations.

However, it is important to note that if the total demand or supplier pricing varies or quantity discounts are available, the total acquisition cost may become a variable component that must be incorporated into the optimization models.

By carefully analyzing the demand patterns, supplier pricing strategies, and the availability of quantity discounts, organizations can determine whether the total purchasing or acquisition cost should be treated as a fixed or variable component in their inventory management models. This approach ensures accurate cost considerations and facilitates the determination of optimal order quantities, ultimately contributing to operational efficiency and cost minimization.

Inventory Holding Costs

Inventory holding costs aim to capture all the actual and opportunity costs incurred by an organization due to maintaining inventory. The main components of holding costs include:

Financing Costs

Inventory represents a significant portion of a firm's assets and working capital. This holding cost component is often estimated as the cost of borrowing or the opportunity cost of deploying funds for alternative uses. The most accurate estimate is the weighted average cost of capital used in capital budgeting decisions. This cost component is directly proportional to the value of the firm's inventory.

Storage and Handling Costs

These costs are incurred due to the physical storage of inventory and are typically a function of the item's size rather than its value. Storage costs may include expenses related to the physical space required for inventory storage. However, these costs are irrelevant when calculating pipeline inventory (inventory in transit).

Inventory Risk Costs

This component accounts for the costs associated with deterioration, obsolescence, shrinkage, theft, or damage to inventory. The level of risk and associated costs depend on the nature of the item. For instance, fashion goods, perishable products, and high-technology items will likely have higher inventory risk costs due to their shorter shelf life or rapid obsolescence.

Insurances

Since we always need to have insurance for our warehouses, the insurance cost can be calculated as a percentage for each item. This cost will, in turn, be used as another part of the holding cost percentage.

By carefully considering and quantifying these components, organizations can accurately estimate their inventory holding costs and make informed decisions regarding inventory levels, storage strategies, and risk mitigation measures. Managing inventory holding costs effectively can contribute to overall operational efficiency and profitability.

Insight

“If the price or the value of the item is higher, the holding cost will be higher. That is one of the main reasons why companies tend to keep as few units as possible for those items when dealing with more expensive items. Sometimes, they keep only one unit just for showing at their store, and they get the customers’ orders to deliver the item to them later or to bring it to the store for customers’ pick up later. They could not afford to keep several of those very expensive items in the store because otherwise, the cost of holding them would be very high.”

Calculating Inventory Holding Costs

In operations management, inventory holding costs are typically calculated as a percentage of the item’s value. This approach allows organizations to estimate the cost of holding a particular item in stock for a specific period.

Example Scenario

Consider an item valued at \$1,000, and the organization’s inventory holding cost is 20% per annum.

Annual Holding Cost per Unit

If the organization holds one unit of this item for an entire year, the annual holding cost would be:

Annual Holding Cost per Unit = Item Value × Inventory Holding Cost Percentage

Annual Holding Cost per Unit = \$1,000 × 0.2 = \$200

Holding Cost for a Partial Year

If the same item is held in inventory for only a quarter of the year (3 months), the holding cost per unit would be:

Quarterly Holding Cost per Unit = $(\frac{1}{4}) \times$ Annual Holding Cost per Unit.

Quarterly Holding Cost per Unit = $(\frac{1}{4}) \times$ \$200 = \$50

Total Annual Holding Cost for Multiple Units

If the organization holds 10 units of this item for an entire year, the total annual inventory holding cost would be:

Total Annual Holding Cost = Number of Units × Annual Holding Cost per Unit

Total Annual Holding Cost = 10 × \$200 = \$2,000

Organizations can accurately estimate the expenses associated with maintaining inventory levels by calculating inventory holding costs as a percentage of the item’s value. This approach allows for effective inventory management, cost optimization, and informed decision-making regarding order quantities and inventory levels.

Ordering Costs

Ordering costs refer to the expenses incurred by an organization when placing an order for inventory replenishment. These costs comprise several components:

Administrative Costs

Placing an order involves administrative tasks such as preparing purchase orders, obtaining necessary approvals, and completing other formalities. The administrative cost component includes all fixed costs associated with these activities, regardless of the order size. Electronic ordering systems can help reduce the time and effort required, thereby minimizing this cost component.

Transportation Costs

A fixed transportation cost is often incurred when transporting ordered goods, regardless of the order size. This cost component accounts for the logistics expenses associated with the delivery of inventory.

Receiving Costs

Upon receiving an order, administrative work is required, such as preparing goods receipt notes, updating inventory records, and verifying the order against the respective purchase order. The receiving cost component accounts for the expenses associated with these receiving activities.

It is important to note that all fixed costs, which do not vary with the order quantity, should be included in the ordering costs. Conversely, costs that vary with the order size should be included in the cost of the item itself.

In a purchasing environment, a significant portion of the ordering cost is information-intensive. Implementing electronic ordering systems can substantially reduce these costs. In a production environment, the ordering cost is referred to as the setup cost, which is the fixed cost associated with preparing machinery or equipment for production, also called Economic Production Quantity (EPQ). Unlike purchasing environments, setup costs are less information-intensive and are primarily influenced by the time lost during the setup activity. Consequently, in production environments, the focus is reducing setup time to minimize these costs.

By carefully considering and quantifying these components, organizations can accurately estimate their ordering costs and make informed decisions regarding order quantities, inventory levels, and potential cost-saving measures, such as implementing electronic ordering systems or optimizing setup processes.

Stock-Out Costs

Stock-out costs refer to the economic consequences an organization faces when it runs out of stock for a particular item. There are two possible scenarios in this situation: either the customer is willing to wait for the item to be restocked (backorder), or the customer's order cannot be fulfilled from the current inventory (lost sale). Stock-out costs can be categorized into two types (Singla, 2018):

Lost Sales Costs

When a company cannot fulfill a customer's order due to a lack of finished goods inventory, it results in a lost sale. The associated cost is the opportunity cost of the potential profit from that transaction. Additionally, lost sales can negatively impact the company's goodwill and future sales prospects.

Backorder Costs

Backorder costs are incurred when a customer is willing to wait for their order to be fulfilled after the item is restocked. In such cases, the organization incurs additional administrative costs and potential additional transportation and handling costs if the material needs to be rushed through to meet the backorder. While some of these costs are tangible, backorder costs also include intangible costs related to the firm's goodwill and potential impact on future sales.

It is important to note that stock-out costs are often intangible and difficult to measure precisely. However, organizations must consider these costs when making inventory management decisions, as they can significantly impact customer satisfaction, profitability, and long-term business performance.

By implementing effective inventory management strategies and maintaining appropriate stock levels, organizations can minimize the occurrence of stock-outs and the associated costs, thereby enhancing customer satisfaction, operational efficiency, and overall profitability.

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2.6: Inventory Models for Certain Demand- Economic Order Quantity (EOQ) Model

Economic Order Quantity (EOQ) Model

The Economic Order Quantity (EOQ) model is a fundamental inventory management model used when the following assumptions hold:

Assumptions

- The item is ordered from an external supplier (no internal production)
- Demand is fixed or steady over time (known with certainty)
- Lead time (the duration between order placement and receipt) is constant
- A fixed order quantity is placed each time
- The ordering cost is fixed per order, regardless of order size

Inventory Control Cycles

Each order placement initiates an inventory control cycle or order cycle. Upon receiving an order, the inventory level increases, and as demand is satisfied, the inventory level decreases over time. When the inventory level reaches a predetermined reorder point, a new order is placed, and the cycle repeats.

The inventory level fluctuates, as shown in the following diagram:

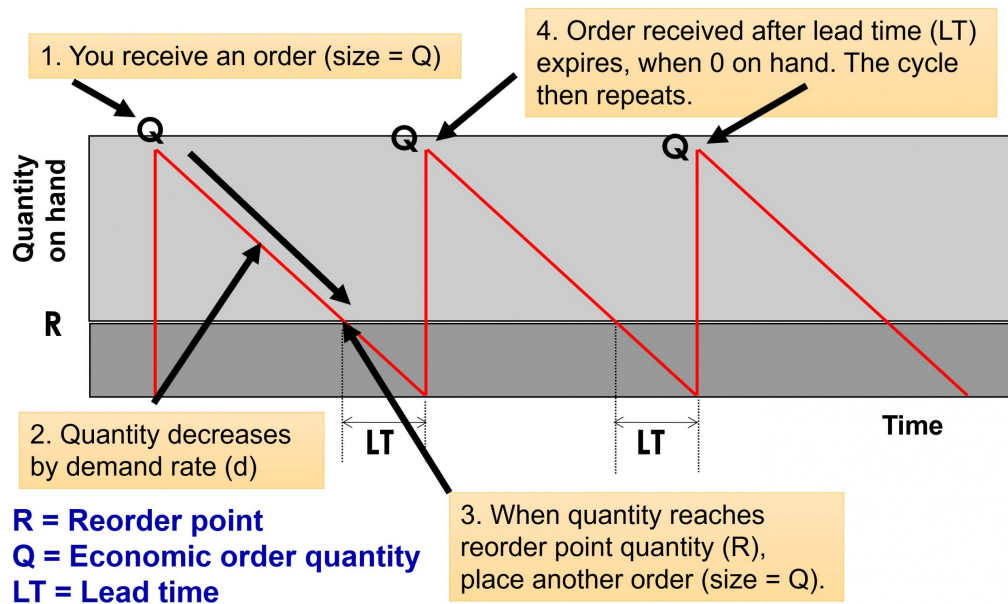


Figure 8.5.1: A diagram showing how the inventory level change over time (described below).

At point 1, an order of quantity Q is received, increasing the inventory level from zero to Q units. As time progresses, the inventory level decreases due to demand. When the inventory level reaches the reorder point R , a new order is placed to ensure that the order is received just as the inventory level reaches zero, preventing stock-outs.

Objective and Cost Components

The objective of the EOQ model is to determine the optimal order quantity (Q^*) that minimizes the total relevant costs, which include:

1. Total Ordering Costs
2. Total Inventory Holding (Carrying) Costs

Other costs, such as total acquisition (purchasing) costs and shortage costs, are excluded from the model due to the assumptions of fixed demand and no stock-outs.

Notation and Calculations

Let:

D = demand (units/year)

Q = order quantity

S = order cost (\$/order)

H = carrying cost (\$/item/year)

I_{avg} = Average inventory

N = number of orders per year

TC = Total Cost

Total Cost = Ordering cost + Carrying cost

$$TC = (S \times N) + (H \times I_{\text{avg}})$$

$$TC(Q) = (S \times D \div Q) + (H \times Q \div 2)$$

The number of orders per year (N) can be calculated as $N = D \div Q$.

The average inventory level is $Q \div 2$, assuming a constant demand rate.

The total relevant cost function, $TC(Q)$, is given by:

$$TC(Q) = (D \div Q) \times S + (Q \div 2) \times H \quad \text{HTC}(Q) = (D \div Q) \times S + (Q \div 2) \times H$$

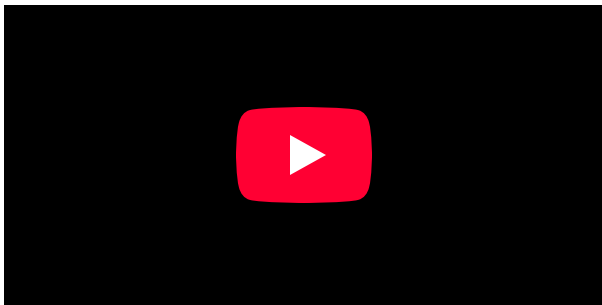
By setting the derivative of $TC(Q)$ with respect to Q equal to zero and solving for Q , the optimal order quantity Q^* is obtained:

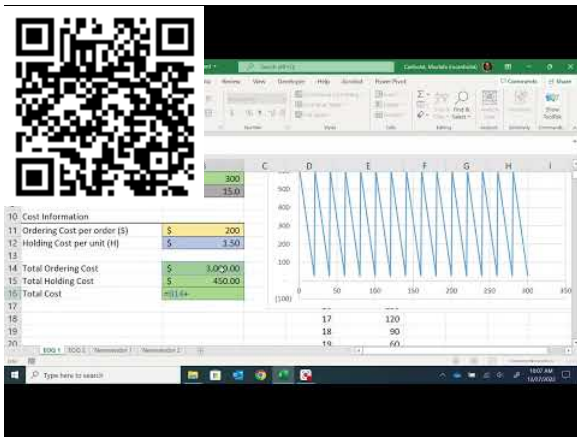
$$Q^* = \sqrt{2DS/H}$$

This optimal order quantity minimizes the total relevant costs for the given demand, ordering cost, and holding cost parameters.

The EOQ model provides a straightforward approach to determining the optimal order quantity when demand is certain, and other assumptions are met, enabling organizations to optimize their inventory management strategies and minimize associated costs.

The * on top of Q shows that it is a special value of the Q , which, in this case, is the optimal value. Let's have a look at some examples.





Video: “[Inventory Management: Economic Order Quantity \(EOQ\) Model Video 1](#)” by [Excel@Analytics – Dr. Canbolat](#) [15:25] is licensed under the [Standard YouTube License](#). Transcript and closed captions available on YouTube.

EOQ Model Examples

Example 1

Assume that Apple Canada has an annual demand of 250,000 for one of its tablets. A component has annual holding cost of \$12 per unit, and ordering cost of \$150. Calculate EOQ, total cost of ordering and inventory holding, number of orders per year and the order cycle time for this item. Assume 250 working days in a year.

Solution

$H = \$12$ per unit

$S = \$150$

$D = 250,000$ units

$$EOQ = Q^* = \sqrt{2DS/H} = \sqrt{2 \times 250,000 \times 150 / 12} = 2500$$

$$TC(Q^*) = S \times D / Q^* + H \times Q^* / 2 = 150 \times 250,000 / 2500 + 12 \times 2500 / 2 = 15000 + 15000 = \$30,000$$

$$\text{Optimal number of orders per year} = D / Q^* = 250,000 / 2500 = 100$$

$$\text{Length of order cycle time} = 250 \text{ days in a year} / 100 \text{ orders} = 2.5 \text{ days}$$

Example 2

Assume that it costs BestBuy \$625 each time it places an order with a manufacturer for a specific model of laptop. The cost of carrying one laptop in inventory for a year is \$130. The store manager estimates that total annual demand for the laptops will be 1500 units, with a constant demand rate throughout the year. The store policy is never to have stockouts of the laptops. The store is open for business every day of the year except Christmas Day.

Determine the following:

- Optimal order quantity per order
- Minimum total annual inventory costs
- The optimal number of orders per year
- The time between orders (in working days)

Solution

$D = 1500$

$S = \$625$

$H = \$130$

- a. $Q^* = \sqrt{2DS/H} = \sqrt{2(1500)(625)/130} = 120.1$
- b. $TC(Q) = SD/Q + HQ/2 = 625 \times 1500/120.1 + 130 \times 120.1/2 = \$15,612.49$
- c. $D/Q = 1500/120.1 = 12.49$ orders
- d. $364/12.49 = 29.14$ days

Example 3

The Modern Furniture Company purchases upholstery material from textile supplier in Halifax, Canada. The company uses 45,000 yards of material per year to make sofas. The cost of ordering material from the textile company is \$1500 per order. It costs Modern Furniture \$0.70 per yard annually to hold a yard of material in inventory. Determine:

- a. The optimal number of yards of material Modern Furniture should order
- b. The minimum total inventory cost
- c. The optimal number of orders per year, and
- d. The optimal time between orders

Solution

$$D = 45,000$$

$$S = \$1500$$

$$H = \$0.70$$

- a. $Q^* = \sqrt{2DS/H} = \sqrt{2(45000)(1500)/0.70} = 13,887.3$ yd
- b. $TC(Q) = SD/Q + HQ/2 = 1500 \times 45000/13887.3 + 0.7 \times 13887.3/2 = \9721.11
- c. $D/Q = 45000/13887.3 = 3.24$ orders per year
- d. $365/3.24 = 112.6$ days

Source

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2.7: Inventory Models for Certain Demand- Economic Production Quantity (EPQ)

Economic Production Quantity (EPQ) Model

The Economic Production Quantity (EPQ) model is applicable when an organization has its own internal production capabilities rather than ordering from an external supplier. Unlike the Economic Order Quantity (EOQ) model, where inventory is received in a single batch, the EPQ model accounts for a gradual replenishment of inventory through production.

Key Differences from EOQ

1. **Production Setup Cost:** In the EPQ model, there is a production setup cost associated with preparing the machines or production area before commencing each production run or cycle.
2. **Gradual Inventory Replenishment:** Instead of receiving the entire order quantity (Q) at once, as in the EOQ model, the inventory level increases gradually during the production uptime or run time.

Inventory Level Behaviour

The inventory level fluctuates in a distinct pattern under the EPQ model, as illustrated in the following diagram

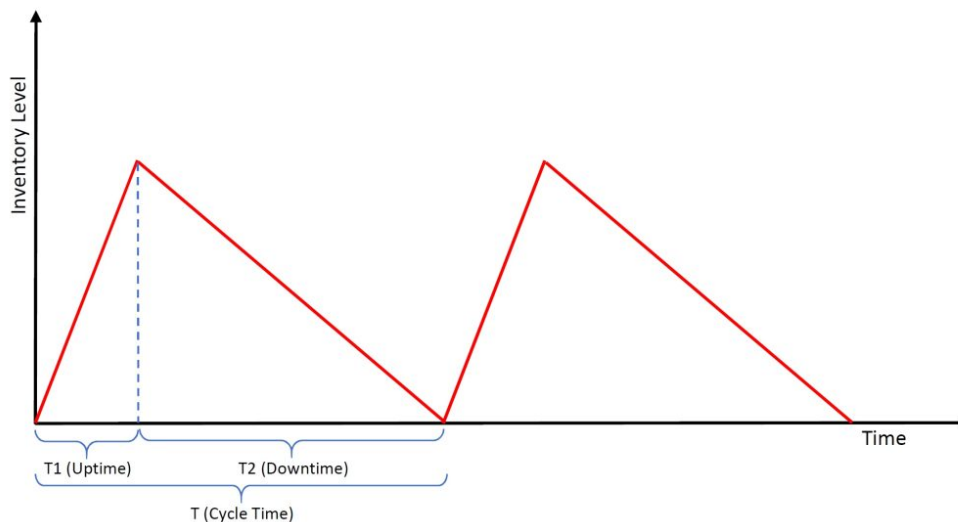


Figure 8.6.1: A chart showing how the inventory level changes over time (described below).

The red line in the diagram represents the fluctuating inventory level over time. During the uptime or run time (T_1), production is ongoing at a rate of p units per day, while customer demand is occurring simultaneously at a rate of d units per day. Consequently, the inventory level increases at a rate of $(p - d)$ units per day, reflecting the net accumulation of inventory.

Production continues until the inventory level reaches a predetermined maximum level. At this point, production is halted, and the accumulated inventory is utilized solely to satisfy customer demand during the downtime period (T_2). During the downtime, the inventory level gradually decreases as the piled-up stock is depleted to meet demand.

A fundamental assumption of the EPQ model is that the production rate (p) exceeds the demand rate (d). If this assumption is violated, and the demand rate surpasses the production rate, the organization will inevitably face stock-outs, as the production capacity would be insufficient to replenish the inventory at the required rate.

By adhering to the condition of $p > d$, the EPQ model ensures that the production process can consistently replenish inventory levels, enabling the organization to meet customer demand without experiencing stock-outs during the downtime period. This assumption is crucial for maintaining a stable inventory management system and ensuring uninterrupted operations.

In terms of calculations, if we use the following notation and replace the H (i.e., the holding cost per unit of item per year) by it, we can use the same formulations from the EOQ model for the optimal lot size (run size) and the total cost. Here are the calculations:

$$H' = H(1 - d/p)$$

EPQ = Q^* = The optimal production lot (run) size in each cycle

$$EPQ = Q^* = \sqrt{2DS/H'} = \sqrt{2DS/H(1-d/p)}$$

$$T1 = \text{Uptime or production time} = Q^*/P$$

$$T = \text{Cycle time} = Q^*/d$$

$$T2 = \text{Downtime} = T - T1$$

$TC(Q)$ = Total cost of production setup and inventory holding associated with a production lot size of Q

$$TC(Q) = S \times D/Q + Q/2 \times H' = S \times D/Q + Q/2 \times H(1-d/p)$$

$$\text{Maximum Inventory} = Q^*(1-d/p)$$

Note that “ D ” is defined as the demand per year, while “ d ” is the demand per day. In addition, Q^* is a specific value for Q , which is associated with the optimal quantity. If we need to find the optimal total cost, we will need to use the value of Q^* as the Q in the formula for $TC(Q)$. Let’s have a look at an example.

Example

An automotive manufacturer uses 48,000 M1 gearboxes per year for its X1 SUV series. The firm makes its own M1 gearboxes, which it can produce at a rate of 800 per day. The carrying cost is \$1 per gearbox per year. Setup cost for a production run of M1 gearboxes is \$45. The firm operates 240 days per year. Determine:

- The optimal run size
- The minimum total annual cost for carrying and setup
- Cycle time for the optimal run size
- The production run time (uptime)
- Maximum inventory

Solution

$$\text{Demand per year} = D = 48000$$

$$\text{Production rate per day} = p = 800$$

$$\text{Demand rate per day} = d = 48000 \div 240 = 200$$

$$\text{Ordering cost per unit} = S = \$45$$

$$\text{Unit inventory holding cost} = H = \$1$$

$$H' = H(1-d/p) = 1 \times (1 - 200/800) = 0.75$$

- The optimal run size

$$Q^* = \sqrt{2SD/H'} = \sqrt{2 \times 45 \times 48000 / 0.75} = 2400$$

- The minimum total annual cost for carrying and setup

$$TC(Q^*) = S \times D/Q^* + H' \times Q^*/2 = 45 \times 48000 / 2400 + 0.75 \times 2400 / 2 = 1800$$

- Cycle time for the optimal run size

$$T = Q^*/D = 2400 / 48000 = 0.05 \text{ year} = 0.05 \times 240 = 12 \text{ days}$$

- The production run time (uptime)

$$T1 = Q^*/p = 2400 / 800 = 3 \text{ days}$$

- Maximum inventory

$$I_{\max} = Q^*(1-d/p) = 2400 \times (1 - 200/800) = 1800$$

Source

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2.8: Inventory Models for Uncertain Demand

Inventory Models for Uncertain Demand

The previous models are valid on the assumption that the market demand is known and stays unchanged. However, sometimes, the market demand could change unexpectedly. This could lead to an inventory shortage, which would change the reorder point. To keep pace with the market, it would be prudent to consider the oscillation in demand during lead time and add in a safety stock. The demand oscillation is commonly measured in terms of the standard deviation (δ) from the average demand during the total time for an order as calculated below:

$$\delta_L = \delta_t \sqrt{L}$$

Knowing the demand variation, the safety stock should be considered to avoid stock out. However, the level of certainty for not facing stock out must also be considered. For example, if we choose to have 95% certainty that stock out and backorder does not happen (also known as Cycle Service Level), then we are reducing the risk of stock out to 5% (100%-95%). Assuming that the demand during lead time is normally distributed, the Z value (Z table) for the selected certainty level would be multiplied to the calculated δ_L to determine the Safety stock as shown below:

$$SS = Z\delta_L$$

The incorporation of safety stock, based on the cycle service level, would move the reordering point to:

$$ROP = d_L + SS$$

Example

A cell phone kiosk has an average demand of 20 phones per week with a variation of 4 phones. The lead time for this kiosk is always 1 week. The Kiosk wishes to maintain a 90% cycle service level. What would be the safety stock and reorder point for this kiosk?

Solution

$$\delta_L = \delta_t(\sqrt{L}) = 4(\sqrt{1}) = 4$$

$$SS = Z\delta_L = 1.28(4) = 5.12 \text{ or } 5$$

Note: Z value for 90% in Z table is 1.28

$$ROP = \delta_L + SS = 4 + 5 = 9$$

Source

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CHAPTER OVERVIEW

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3.1: Overview and Guiding Questions

The Link Between an Organization's Facility and it's Competitiveness

This section asks students to consider **how an organization's facility impacts their competitiveness.**

Consider the following questions as you review the learning materials:

- How does an organization gain a competitive advantage?
- What are the key factors in determining the optimal location of a facility?
- How can the layout of a facility impact an organization's competitiveness?
- What facility-related Key Performance Indicators (KPIs) would be important for an organization to monitor?

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3.2: Competitiveness

What Does it Mean to Be Competitive?

Competitiveness refers to a firm's ability and performance in selling and supplying goods and services within a given market ("Competition (companies)", 2019). It's about how a company can win over customers to become their preferred choice. Competitive Advantage is achieved by offering better value than competitors through lower prices or higher quality. Key purchasing criteria include price, quality, variety, and timeliness. Customer decisions are influenced by these criteria when choosing a service or product.

Competitive Advantage and Key Purchasing Criteria

Competitive Advantage and Key Purchasing Criteria are two sides of the same coin in business. They both deal with why a customer chooses one company over another.

Competitive advantage is what makes a business stand out from its competitors. It's the reason a customer would choose their product or service over another company's offering. This advantage can come in many forms, like:

- *Lower prices:* Some companies can offer a similar product at a cheaper cost due to efficiencies or economies of scale.
- *Higher quality:* Some companies focus on building superior products that last longer or perform better.
- *Better customer service:* Companies that prioritize customer experience can build loyalty through strong support.
- *Unique features:* A groundbreaking product or service can create a competitive advantage if it fills a specific customer need.

Understanding what motivates buyers is crucial for any organization, regardless of who those buyers are. These motivators, known as Key Purchasing Criteria, are the factors that influence buying decisions.

The Customer isn't always a single person. Sometimes, it can be another company. For example, imagine the City of Toronto buying heavy-duty trucks for park maintenance or Toyota searching for a new supplier of car windshields. In both cases, key purchasing criteria will guide their choices.

Key Purchasing Criteria are the factors that influence a customer's buying decision. When customers consider different options, they will weigh these criteria to determine the best fit for their needs. Here are some common factors:

- *Price* – Firms must understand how much the Customer will pay for an item. If products are seen to be very similar, the Customer will choose based on price.
- *Quality* – Many customers are willing to spend more to obtain a product with specific characteristics or brand reputation. Not only are we considering a product with a great design but also one that is long-lasting and defect-free.
- *Variety* – A part of the market values the opportunity to choose from a wide variety of products. They look for options to change the style, colour, dimensions, or technical characteristics.
- *Timeliness* – Some customers care greatly about how long it will take to obtain the product or service. For companies in the transportation business, this will be a key necessity to gain new customers. This can also be related to the capability of the company to deliver at the time that they had promised.

By understanding their competitive advantage, a business can tailor their marketing and sales to resonate with a customer's key purchasing criteria. This increases the chance of the Customer choosing them over the competition.

Key Purchasing Criteria

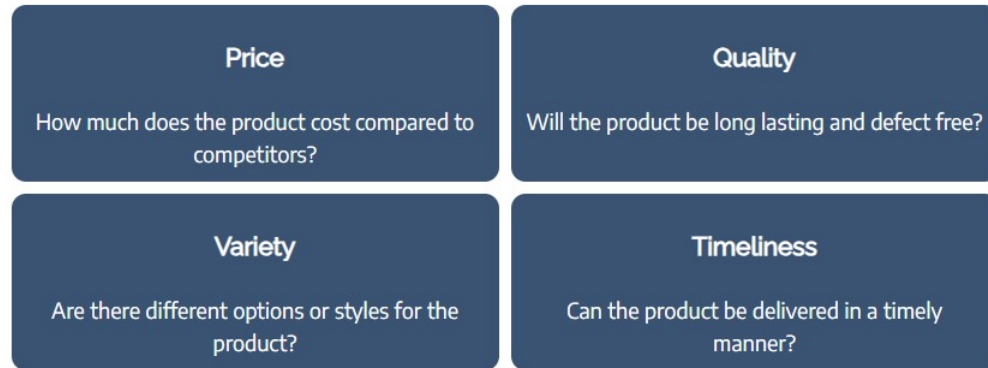


Figure 2.2.1: Categories of key purchasing criteria.

Order Qualifiers vs. Order Winners

Two essential concepts related to purchasing criteria are order qualifiers and order winners, which were initially introduced by Terry Hill (Hill, 2000). When making significant purchases, customers evaluate which characteristics are non-negotiable requirements and which can influence their decision.

Order Qualifiers

These are the non-negotiable features or requirements that customers expect. If a product or service lacks these characteristics, customers will seek alternatives.

For example, minimum safety features and air conditioning might be order qualifiers for a car. In Smartphones, customers expect a minimum level of battery performance, a certain level of display quality is essential, and the phone must function reliably.

Order Winners

These characteristics differentiate a product or service and lead to winning the Customer's order.

Order winners can include new technical features, attractive warranties, service agreements, or competitive pricing.

Over time, what was once an order winner may become an order qualifier and vice versa. For instance, air conditioning in cars was a novelty (order winner) in 1989 but has now become an expected feature (order qualifier). Regarding the example of Smartphones, a superior camera with advanced features can be a decisive factor; a visually appealing and distinctive design can attract customers, and innovative software functionalities set a product apart.

Marketing teams must understand their customers' order qualifiers and order winners. Operations should promptly address these requirements to meet customer expectations.

These concepts evolve, so businesses must stay attuned to changing customer preferences.

Competitive Priorities

In the world of business, every company wants to be the champion. But how do they win? Operations Management plays a critical role by focusing on four key areas that customers care about cost, quality, flexibility, and speed.

Cost: Keeping it Affordable

Imagine customers who only want the best deals. For these price-conscious shoppers, companies need to be cost champions. This means finding ways to cut waste and get the most out of everything they have. They become ninjas at identifying and eliminating unnecessary steps in their operations. Reducing mistakes (defects) also saves money, so these companies keep a close eye on quality to keep costs down. Think of it like this: the less you waste, the less you spend!

Quality: Products Worth Bragging About

Some customers value quality above all else. For them, companies strive to be quality kings and queens. This means creating top-notch products and figuring out the best way to make them. Imagine the marketing and engineering teams working together to design amazing products that meet Customer needs precisely. Then, the manufacturing team ensures these products are built perfectly every single time. It's like a two-part recipe for success: a great design and a perfect production process, both working together to satisfy happy customers.

Flexibility: Adapting on the Fly

What if customers want lots of choices and new products all the time? In that case, companies need to be flexibility fighters. They achieve this by using equipment that can handle many different tasks, like a Swiss Army knife of the business world! They also keep some extra space and resources on hand to ramp things up quickly. Imagine having employees who can wear many hats and switch between tasks or machines easily. This allows these companies to get new products to market fast and switch between making different products in a flash. They also want to be able to adjust their production levels quickly if demand changes. Think of it like this: the more adaptable you are, the easier it is to keep up with customer needs.

Delivery: Getting There Fast

Sometimes, speed is king (or queen!). Companies whose customers value fast delivery need to be in the delivery dash. Imagine companies like McDonald's or Amazon – they're all about getting things to you quickly and efficiently. This means having streamlined processes and being super fast at providing their products and services.

These competitive priorities are also outlined in the chart below. By understanding these competitive priorities, operations managers can make strategic decisions to give their company the edge and become the ultimate champion in the eyes of their customers!

Customer's priorities determine a firm's strategy.

Customer's priority	Firm's strategy
Cost	Minimizing product costs and waste, maximizing productivity
Quality	Designing superior, durable products, minimizing defects
Flexibility	Adaptability in product design and output, utilizing general-purpose machinery and multi-skilled workers
Delivery	Maintaining reliable and speedy delivery services

Fig. 2.2.2 Matches customer's priorities with the firm's strategy.

Trade-offs in Operations: The Balancing Act

Have you ever tried juggling? It takes practice to keep all the balls in the air! In operations management, it's similar. There are many important things to focus on, but you can't necessarily be the best at everything all the time. This is because of trade-offs. Imagine a company that wants to be the absolute cheapest (cost champion). To make fewer mistakes (defects), they might switch to a higher-quality part. But guess what? That usually costs more! This is a classic trade-off between cost and quality.

Just like juggling different colored balls, there are trade-offs between flexibility and speed. If a company wants to offer many choices (flexibility), it can get complicated to make everything quickly (speed). Think about a pizza place that makes everything from hand-tossed dough to gourmet toppings. It might take longer to get your pie compared to a place with just a few basic options.

Every decision in operations management involves a balancing act. By understanding these trade-offs, companies can determine what matters most to their customers and focus on excelling in those areas.

Core Competencies

Imagine a bakery famous for its mouthwatering pies. What makes their pies so good? Maybe it's a secret family recipe, perhaps it's their generation of baking experience, or maybe it's their special touch for creating flaky crusts. This special something is like a company's core competency.

Core competency is a business term that means a company's unique strengths and talents. It's what makes them stand out from the crowd, just like the secret ingredient that makes those pies so delicious.

This idea of core competencies came from a Harvard Business Review article, 'The Core Competence of the Corporation,' written in the 1990s.

Core competencies are the resources and capabilities that comprise the strategic advantages of a business. A modern management theory argues that a business must define, cultivate, and exploit its core competencies to succeed against the competition.

Many things can contribute to a company's core competency. It could be their amazing employees, equipment, a secret formula they hold (like a patent), or even their awesome brand reputation.

The key thing is that a successful company knows what it does better than anyone else and why. Their core competency is the "why" behind their success. By identifying and using their core competency, a company can become the bakery everyone raves about or whatever industry they're in!

The Core Competency Checklist: Three Must-Haves

In an article, C.K. Prahalad and Gary Hamel came up with a special checklist to identify core competencies.

1. A core competency should deliver a superior value or benefit to the Customer. Think about McDonald's fries. They might not be the most gourmet, but they're tasty, consistent, and affordable – a win for customers who want a quick and reliable fry fix.
2. It should be difficult for competitors to imitate. Imagine Apple's stylish designs. Sure, other companies can make phones, but Apple's unique design and user experience blend is tough to replicate.
3. A core competency should be rare. Only some companies can have the same strength. Take Walmart's buying power. Their massive size allows them to negotiate incredible deals with suppliers, giving them a big advantage over smaller competitors. (Twin, 2023).

These three conditions are like a secret code for identifying a company's strengths. If a strength checks all these boxes, then it's a core competency. By focusing on these core competencies, businesses can become the McDonald's of fries, the Apple of style, or the Walmart of low prices, dominating their competition!

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SECTION OVERVIEW

3.3: Facility Location



There are many factors that can determine where an organization will locate its facilities. For any given situation, some factors become more important than others in how facility location affects an organization's performance. For example, when a company needs to open a new manufacturing facility, there are several factors that determine which location reduces the company's operating costs while providing a great level of responsiveness to the market.

3.3.1: Key Factors in Facility Location Decision-Making

3.3.2: Methods for Finding the Best Facility Location

3.3.3: Center of Gravity Method

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3.3.1: Key Factors in Facility Location Decision-Making

- Proximity to sources of supply:
 - Firms that process bulk raw materials usually locate close to the source of supply to reduce transportation costs. Paper mills locate close to forests, canneries are built close to farming areas, and fish processing plants are located close to the harbors where the fishing vessels dock.
- Proximity to customers:
 - There are several reasons why an organization would locate close to end customers. Service firms need to be close to customers to be convenient, as is the case for grocery stores, gas stations, fast food restaurants, and hospitals. Transportation costs can also require proximity to customers, as in the case of concrete manufacturing. Perishable products often require that they be produced close to the final market, as is the case for bakeries and fresh flowers.
- Community factors:
 - Communities may offer a number of incentives to entice companies, including waiving or reducing taxes, and providing access roads, water and sewer connections, and utilities. Community attitudes can also play a role in an organization's location decision. Some communities may actively discourage companies that might bring more pollution, noise, and traffic to the area. Some communities may not want a prison to be located in their community. Other communities may welcome such firms because of the jobs, tax revenues, and economic diversity they promise.
- Labor factors:
 - Research shows that the majority of location decisions are largely based on labor factors, since labor is a critical variable for many firms. Labor factors include the prevailing wage rate in a community for similar jobs, the supply of qualified workers, and the average education level of the local population (percentage of high school graduates, etc.). Other labor factors can include the degree of union organizing and the general work ethic of a community, as well as other measures of absenteeism, and worker longevity in a job can play a strong role when a firm makes a location decision.
- Other factors:
 - Many other factors can play a role in the location decision, including quality of life (crime rates, good schools, climate, and recreation options), access to major transportation arteries, construction costs, proximity of the competition, and opportunities for future expansion.^[1]

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3.3.2: Methods for Finding the Best Facility Location

Location Factor Rating

One method to assist in choosing the best location is the Location Factor Rating (also known as Weighted Scoring Model). The various factors important in this decision are decided upon and each is given a weight between zero and 1.0 to reflect each factor's importance. Every site is then evaluated in comparison with each other and given a score. Weighted scores are calculated by multiplying each score by its corresponding weight. When weighted scores are summed up, the highest weighted score reflects the location which is the most attractive based on all factors.

✓ Example 3.3.2.1

Location Factor	Weight	Site #1	Site #2	Site #3
Proximity to Suppliers	0.3	80	85	80
Business Environment	0.25	65	90	55
Wage Rates	0.15	72	55	65
Community	0.1	65	60	40
Proximity to Customers	0.1	55	90	70
Labour Pool	0.05	40	45	65
Proximity to Airport	0.05	60	55	80

Solution

Weighted Score

Location Factor	Site #1	Site #2	Site #3
Proximity to Suppliers	24.0	25.5	24.0
Business Environment	16.3	22.5	13.8
Wage Rates	10.8	8.3	9.8
Community	6.5	6.0	4.0
Proximity to Customers	5.5	9.0	7.0
Labour Pool	2.0	2.3	3.3
Proximity to Airport	3.0	2.8	4.0
Total Score	68.1	76.3	65.8

In this example, site #2 shows the highest score when evaluated against site #1 and #3. So, we choose site #2.

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3.3.3: Center of Gravity Method

In order to minimize transportation costs, the centre of gravity method may be used to locate a facility that serves several area (or other facilities) such as a warehouse or distribution centre. This method uses an (X-Y) coordinate system to cover the geographical map of the areas under study, and identifies the x and y coordinates for the location of the new facility based on the coordinates of the other facilities and the volume (quantity) of demand for each area (facility). For example, in the following figure, each blue star represents a market area that needs to be served, and the size of area also shows the demand quantity for that market. We are looking for the whereabouts (i.e., \bar{x} and \bar{y}) of the location for our facility to be set up to serve all these markets while minimizing our total transportation costs.

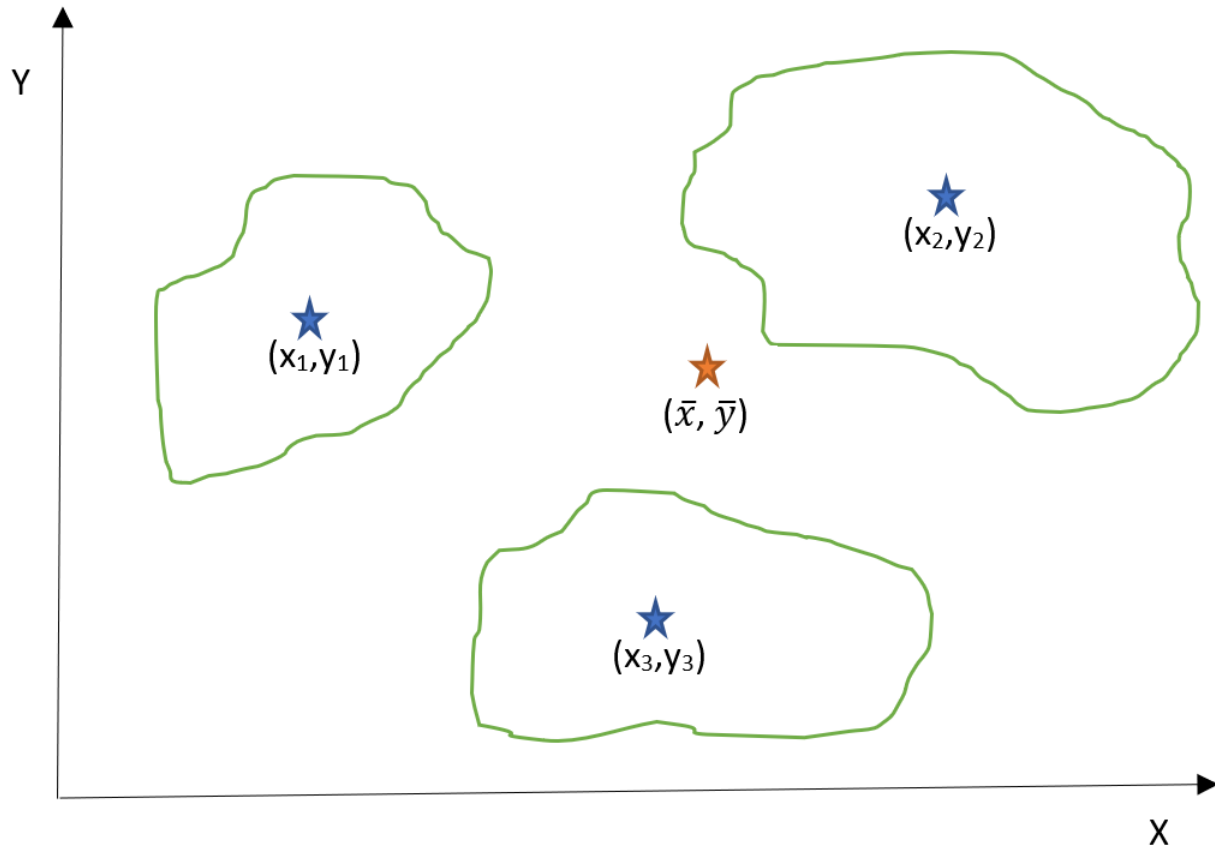


Figure 3.3.3.1: Three market areas on an X-Y coordinate axis.

In the following, we show the Centre of Gravity formulas. and use them in an example:

$$\bar{x} = \frac{\sum x_i Q_i}{\sum Q_i}$$

$$\bar{y} = \frac{\sum y_i Q_i}{\sum Q_i}$$

Figure 8.2:

\bar{x} = the x coordinate for the new facility

\bar{y} = the y coordinate for the new facility

x_i = x coordinate of destination (market) i

y_i = y coordinate of destination (market) i

Q_i = quantity to be transported to destination i

✓ Example 3.3.3.1

Using the center of gravity method and the information on the location of the potential markets, determine where the new facility should be located to minimize the total transportation cost. Note that a selected point in the middle of each region is representing the regional market.

Solution

$$\bar{x} = \frac{1(600) + 3(400) + 6(550) + 2(800)}{600 + 400 + 550 + 800} = 2.9$$

$$\bar{y} = \frac{2(600) + 4(400) + 4(550) + 6(800)}{600 + 400 + 550 + 800} = 4.2$$

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SECTION OVERVIEW

3.4: Strategic Capacity Planning



Learning Objectives

- What are common capacity strategies?
- Calculate efficiency and utilization measures.
- Describe factors that determine effective capacity.
- Understand the steps in the capacity planning process.
- Determine the capacity in a sequential process with a bottleneck.
- Use break even analysis to evaluate capacity alternatives.

This module examines how important strategic capacity planning is for products and services. The overall objective of strategic capacity planning is to reach an optimal level where production capabilities meet demand.

3.4.1: Introduction to Strategic Capacity Planning

3.4.2: Capacity Planning for Products and Services

3.4.3: Defining and Measuring Capacity

3.4.4: Determinants of Effective Capacity

3.4.5: The Sequential Processes and the Bottleneck

3.4.6: Evaluating Capacity Alternatives

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3.4.1: Introduction to Strategic Capacity Planning

Strategic Capacity Planning

Capacity needs include equipment, space, and employee skills. If production capabilities are not meeting demand, it will result in higher costs, strains on resources, and possible customer loss. It is important to note that capacity planning has many long-term concerns given the long-term commitment of resources.

Managers should recognize the broader effects capacity decisions have on the entire organization. Common strategies include **leading capacity**, where capacity is increased to meet expected demand, and **following capacity**, where companies wait for demand increases before expanding capabilities. A third approach is **tracking capacity**, which adds incremental capacity over time to meet demand.

Finally, the two most useful functions of capacity planning are design capacity and effective capacity. **Design capacity** refers to the maximum designed capacity or output rate and the **effective capacity** is the design capacity minus personal and other allowances. These two functions of capacity can be used to find the efficiency and utilization. These are calculated by the formulas below:

$$\begin{aligned}\text{Efficiency} &= (\text{Actual Output} / \text{Effective Capacity}) \times 100\% \\ \text{Utilization} &= (\text{Actual Output} / \text{Design Capacity}) \times 100\% \\ \text{Effective Capacity} &= \text{Design Capacity} - \text{allowances}\end{aligned}\tag{3.4.1.1}$$

✓ Example 3.4.1.1

Actual production last week = 25,000 units

Effective capacity = 28,000 units

Design capacity = 230 units per hour

Factory operates 7 days / week, three 8-hour shifts

1. What is the design capacity for one week?
2. Calculate the efficiency and utilization rates.

Solution

(Using the formulas above)

1. Design capacity = $(7 \times 3 \times 8) \times (230) = 38,640$ units per week
2. Utilization = $25,000 / 38,640 = 64.7\%$
Efficiency = $25,000 / 28,000 = 89.3\%$

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3.4.2: Capacity Planning for Products and Services

Capacity Planning for Products and Services

Capacity refers to a system's potential for producing goods or delivering services over a specified time interval. Capacity planning involves long-term and short-term considerations. Long-term considerations relate to the overall level of capacity; short-term considerations relate to variations in capacity requirements due to seasonal, random, and irregular fluctuations in demand.

Excess capacity arises when actual production is less than what is achievable or optimal for a firm. This often means that the demand in the market for the product is below what the firm could potentially supply to the market. Excess capacity is inefficient and will cause manufacturers to incur extra costs. Capacity can be broken down in two categories: Design Capacity and Effective Capacity.

Three key inputs to capacity planning are:

1. The kind of capacity that will be needed
2. How much capacity will be needed?
3. When will it be needed?

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3.4.3: Defining and Measuring Capacity

Defining and Measuring Capacity

When selecting a measure of capacity, it is best to choose one that doesn't need updating. For example, dollar amounts are often a poor measure of capacity (e.g., a restaurant may have capacity of \$1 million of sales a year) because price changes over time necessitate updating of that measure.

When dealing with more than one product, it is best to measure capacity in terms of each product. For example, the capacity of a firm is to either produce 100 microwaves or 75 refrigerators. This is less confusing than just saying the capacity is 100 or 75. Another method of measuring capacity is by referring to the availability of inputs. This is usually more helpful if we are dealing with several type of output. Note that one specific measure of capacity can't be used in all situations; it needs to be tailored to the specific situation at hand. The following table shows examples of both output and input used for capacity measures.

Table 3.4.3.1: Various businesses and their respective input and output measures of capacity.

Type of Business	Input Measures of Capacity	Output Measures of Capacity
Car manufacturer	Labour hours	Cars per shift
Hospital	Available beds	Patients per month
Pizza parlour	Labour hours	Pizzas per day
Retail store	Floor space (sq. ft.)	Revenue per sq. ft.

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3.4.4: Determinants of Effective Capacity

Determinants of Effective Capacity

- **Facilities:** The size and provision for expansion are key in the design of facilities. Other facility factors include locational factors, such as transportation costs, distance to market, labor supply, and energy sources. The layout of the work area can determine how smoothly work can be performed.
- **Product and Service Factors:** The more uniform the output, the more opportunities there are for standardization of methods and materials. This leads to greater capacity.
- **Process Factors:** Quantity capability is an important determinant of capacity, but so is output quality. If the quality does not meet standards, then output rate decreases because of need of inspection and rework activities. Process improvements that increase quality and productivity can result in increased capacity. Another process factor to consider is the time it takes to change over equipment settings for different products or services.
- **Human Factors:** the tasks that are needed in certain jobs, the array of activities involved, and the training, skill, and experience required to perform a job all affect the potential and actual output. Employee motivation, absenteeism, and labour turnover all affect the output rate as well.
- **Policy Factors:** Management policy can affect capacity by allowing or disallowing capacity options such as overtime or second or third shifts
- **Operational Factors:** Scheduling problems may occur when an organization has differences in equipment capabilities among different pieces of equipment or differences in job requirements. Other areas of impact on effective capacity include inventory stocking decisions, late deliveries, purchasing requirements, acceptability of purchased materials and parts, and quality inspection and control procedures.
- **Supply Chain Factors:** Questions include: What impact will the changes have on suppliers, warehousing, transportation, and distributors? If capacity will be increased, will these elements of the supply chain be able to handle the increase? If capacity is to be decreased, what impact will the loss of business have on these elements of the supply chain?
- **External Factors:** Minimum quality and performance standards can restrict management's options for increasing and using capacity

Summary of examples of capacity factors.

Facility Factors

- e.g. expansion potential, strategic location

Product & Service Factors

- e.g. uniformity within the product manufactured or service executed

Process Factors

- e.g. reducing inspections, efficient equipment adjustments

Human Factors

- e.g. high employee motivation, low absenteeism, low labour turnover

Policy Factors

- e.g. opportunity for overtime and/or additional shifts

Operational Factors

- e.g. well-stocked inventory, minimal scheduling delays

Supply Chain Factors

- e.g. adaptable distributors

External Factors

- e.g. minimal interference with quality and performance standards

Inadequate planning can be a major limitation in determining the effective capacity.

The most important parts of effective capacity are process and human factors. Process factors must be efficient and must operate smoothly. If not, the rate of output will dramatically decrease. They must be motivated and have a low absenteeism and labour turnover. In resolving constraint issues, all possible alternative solutions must be evaluated.

Steps in the Capacity Planning Process:

1. Estimate future capacity requirements
2. Evaluate existing capacity and facilities and identify gaps
3. Identify alternatives for meeting requirements
4. Conduct financial analyses of each alternative
5. Assess key qualitative issues for each alternative
6. Select the alternative to pursue that will be best in the long term
7. Implement the selected alternative
8. Monitor results

The above content is an adaptation of Saylor Academy's BUS300 course.^[1]

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3.4.5: The Sequential Processes and the Bottleneck

The Sequential Processes and the Bottleneck

Any process that has several steps, one after another, is considered a **sequential process**. A good example of these processes is the manufacturing assembly line in which each workstation gets inputs from a previous workstation and give its outputs to the next workstation. It is safe to assume that each step has its own staff member, since this is exactly what happens in assembly lines. For this kind of process, it is crucial to have a balanced time across all steps. That is, there should not be any big difference between the amounts of time that different steps take to process one unit of product. For example, if step 1, 2 and 3 take 3, 10 and 5 minutes consecutively to process one unit of product, two main issues will happen during the production:

1) There will be a big pile of inventory sitting right before step 2, since step 1 is much faster than step 2, and the products that are already processed in step 1 will need to wait for step 2 to be done with its current unit at hand. As a result, this becomes an inventory holding issue, which is costly.

2) Step 3 will always need to wait for step 2 for an extra 5 minutes. This is due to the fact that step 3 finished its current product at hand in 5 minutes, but step 2 needs a total of 10 minutes to finish its work and feed it to step 3. This causes step 3 to be idle for a long time, which is also costly for the company. This is costly, because the company is already paying the staff who works in step 3 for the whole time, but they are not able to produce as many units as they should due to the very slow entry of the inputs coming from step 2.

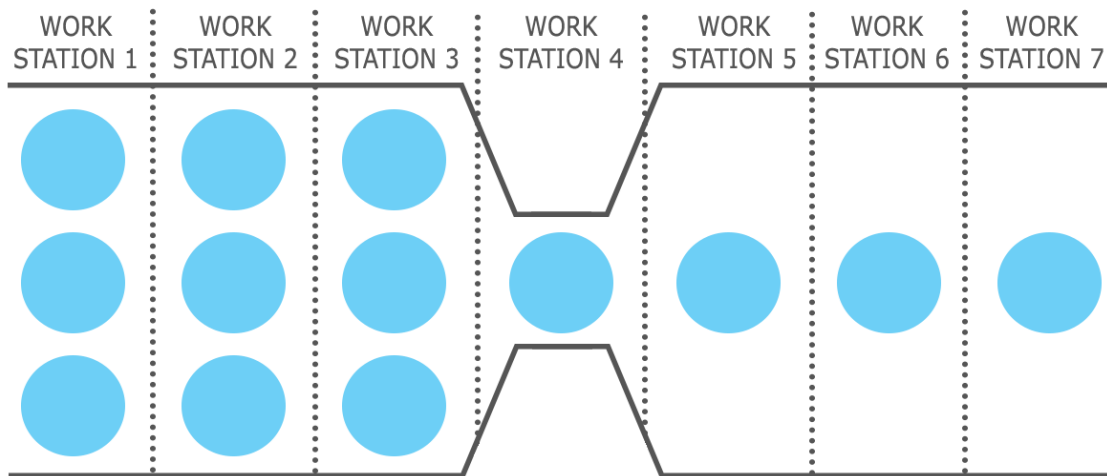


Figure 3.4.5.1: A diagram displaying the effects of a bottleneck.

The bottleneck is the slowest step in each process or the slowest process in a system. The capacity of the bottleneck defines the capacity of the whole process. In our example above, step 2 was the slowest, and as a result, the bottleneck. This means that the whole process (including all steps 1 to 3) will not be able to have an output any faster than one every 10 minutes. In the following, let's see why this is happening:

In an 8-hour shift per day, we have $8 \times 60 = 480$ minutes

Assuming that step 1 has enough input to process during the day, the total output from step 1 will be $480 / 3 = 160$ units per day. This is the capacity for step 1. In a similar way, the capacity for step 2 is $480 / 10 = 48$, and the capacity for step 3 is $480 / 5 = 96$ units.

This means that the input to step 2 will be 160 units to be processed. But as we see, step 2 will only be able to process a maximum of 48 units per day. That means that only 48 units get to step 3 for processing. Since step 3 has a capacity of 96 units per day, it will easily process those 48 units of inputs, and the output from step 3 will be 48 units. Because the step 3 is the last step of our process, this output of 48 units will automatically be the total output of the whole process per day.

The key observation here is that the capacity of step 2, which is the bottleneck, determined the capacity of the whole process. This concept is very important in practice. Often times, the companies that do not pay attention to the concept of bottleneck and its

implications invest in parts of the process that are not bottleneck. This will keep the bottleneck unchanged and as a result, they will not see any improvement in the capacity of the whole process.

✓ Example 3.4.5.1

Caroline has a thriving business selling her tote bags through several popular websites. Her business volume has caused her to hire full-time employees. Her business has four main manufacturing operations: 1) cutting fabric (4 min), 2) stitching fabric (7 min), 3) adding zippers, toggles, and liner (10 min), and 4) inspecting, packing, and labeling (5 min).

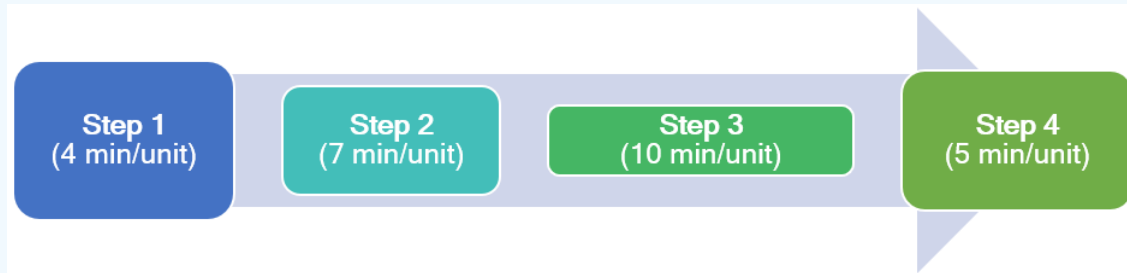


Figure 3.4.5.2: Flow diagram depicting the time taken for each step of Caroline's manufacturing process.

Employees work 7 hours per day. Help Caroline to determine the following:

1. Based on her very high demand, is there a bottleneck and what stage is it? What is the capacity of the process per day?
2. Caroline's employee at step #2 has found a new machine that will enable him to do the stitching faster, at a rate of 5 min per bag instead of 7 min. The machine costs \$3500. Would you suggest this is a good investment to help Caroline increase her output? Why or why not?
3. If there were another person to be added to the process, where should Caroline add him or her and what would be the new capacity?

Solution

3.4.5.1: Solution for Caroline's Totes example

Operation	Time	Daily Capacity
Step 1: Cutting fabric	4 min	$420 / 4 = 105$
Step 2: Stitching fabric	7 min	$420 / 7 = 60$
Step 3: Adding zippers, toggles, liners	10 min	$420 / 10 = 42$
Step 4: Inspecting, packing, labeling	5 min	$420 / 5 = 84$

(Based on $7 \times 60 = 420$ min per day)

1. The maximum output is 42 units, because that is what the bottleneck can do. The bottleneck is at stage #3, which is the slowest part of the process.
2. Caroline should NOT invest any funds into step #2. This may speed up the stitching, but the maximum output of the process will still be 42 units because step #3 has not changed.
3. If Caroline added another person, she should add it to step #3. (Install zippers/ toggles/ liner). Because that is where the bottleneck is. The capacity at stage three would now double to 84 units per day. The new capacity for the whole process would now be 60 units per day, as determined by Step 2 (Basic stitching) which is the new bottleneck of the process.

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3.4.6: Evaluating Capacity Alternatives

Evaluating Capacity Alternatives

Basically, since there is usually a fixed cost (FC) associated with the usage of a capacity, we look for the right quantity of output that gives us enough total revenue (TR) to cover for the total cost (TC) that we have to incur. This quantity is called Break-Even Point (BEP), Break-Even Quantity (Q_{BEP}).

Total cost is the summation of the fixed cost and the total variable cost (VC, which depends on the quantity of output). In other words, at Q_{BEP} , we have: $TC = FC + VC$

A list of relevant notation can be found below:

TC = total cost
 FC = total fixed cost
 VC = total variable cost
 TR = total revenue
 v = variable cost per unit
 R = revenue per unit
 Q = volume of output
 Q_{BEP} = break even volume
 P = profit

Fixed cost is regardless of the quantity of output. Some examples of fixed costs are rental costs, property taxes, equipment costs, heating and cooling expenses, and certain administrative costs

With the above notation and some simplification in the calculation, we have:

$$\begin{aligned}
 TC &= FC + VC \\
 VC &= Q \times v \\
 TR &= Q \times r \\
 P &= TR - TC = Q \times r - (FC + Q \times v) \\
 Q_{BEP} &= FC / (r - v)
 \end{aligned}
 \tag{3.4.6.1}$$

✓ Example 3.4.6.1

The management of a pizza place would like to add a new line of small pizza, which will require leasing a new equipment for a monthly payment of \$4,000. Variable costs would be \$4 per pizza, and pizzas would retail for \$9 each.

1. How many pizzas must be sold per month in order to break even?
2. What would the profit (loss) be if 1200 pizzas are made and sold in a month?
3. How many pizzas must be sold to realize a profit of \$10,000 per month?
4. If demand is expected to be 700 pizzas per month, will this be a profitable investment?

Solution

1. $Q_{BEP} = FC / (r - v) = 4000 / (9 - 4) = 800$ pizzas per month
2. total revenue – total cost = $1200 \times 9 - 1200 \times 4 = \6000 (i.e. a profit)
3. $P = \$10000 = Q(r - v) - FC$;
Solving for Q will give us: $Q = (10000 + 4000) / (9 - 4) = 2800$
4. Producing less than 800 (i.e. Q_{BEP}) pizzas will bring in a loss. Since $700 < 800$ (Q_{BEP}), it is not a profitable investment.

Finding a break-even point between “make” or “buy” decisions:

Question: For what quantities would buying the product be preferred to making it in-house? For quantities larger than the break-even quantity or for smaller ones?

v_m = per unit variable cost of “make”

v_b = per unit variable cost of “buy”

total cost of “make” = total cost of “buy”

$$\begin{aligned}
 &= Q \times v_m + FC = Q \times v_b \\
 &= FC = Q \times v_b - Q \times v_m \\
 &= Q = FC / (v_b - v_m)
 \end{aligned}$$

✓ Example 3.4.6.2

The ABX Company has developed a new product and is wondering if they should make this product in-house or have a capable supplier make the product for them. The costs associated with each option are provided in the following table:

	Fixed Cost (annual)	Variable Cost
Make in-house	\$160,000	\$100
Buy		\$150

1. What is the break-even quantity at which the company will be indifferent between the two options?
2. If the annual demand for the new product is estimated at 1000 units, should the company make or buy the product?
3. For what range of demand volume it will be better to make the product in-house?

Solution

Solution

1. $Q_{BEP} = FC / (v_b - v_m) = 160,000 / (150 - 100) = 3200$
2. Total cost of “make” = $1000 \times 100 + 160,000 = \$260,000$; Total cost of “buy” = $1000 \times 150 = \$150,000$
Thus, it will be better to buy since it will be less costly in total.
3. It will always be better to use the option with the lower variable cost for quantities greater than the break-even quantity.
This can also be proven as follows:

We want “make” to be better than “buy” in this part of the question. Thus, for any quantity Q , we need to have:

$$\begin{aligned}
 &\text{Total cost of “make”} < \text{Total cost of “buy”} \\
 &= 160,000 + 100Q < 150Q \\
 &= 160,000 < 50Q \\
 &= 3200 < Q
 \end{aligned}$$

Finding a break-even point between two make decisions

Question: For what quantities would machine A be preferred to machine B? For quantities larger than the break-even quantity or for smaller ones?

If we assume the two options for making a product are machine A, with a fixed cost of FC_A and a variable cost of v_A , and machine B, with a fixed cost of FC_B and a variable cost of v_B , we have:

$$\begin{aligned}
 &\text{total cost of A} = \text{total cost of B} \\
 &= Q \times v_A + FC_A = Q \times v_B + FC_B \\
 &= FC_A - FC_B = Q \times v_B - Q \times v_A \\
 &= Q = (FC_A - FC_B) / (v_B - v_A)
 \end{aligned}$$

In any problem, it is suggested that you write down the total cost of each option and simplify from there to make sure that you do not miss any possible additional cost factors (if any).

✓ Example 3.4.6.3

The ABX Company has developed a new product and is going to make this product in-house. To be able to do this, they need to get a new equipment to be able to do the special type of processing required by the new product design. They have found two suppliers that sell such equipment. They are wondering which supplier they go ahead with. The costs associated with each option are provide in the following table:

	Fixed Cost (annual)	Variable Cost
Supplier A	\$160,000	\$150
Supplier B	\$200,000	\$100

1. What is the break-even quantity at which the company will be indifferent between the two options?
2. If the annual demand for the new product is estimated at 1000 units, which supplier should the company use?
3. For what range of demand volume each supplier will be better?

Solution

1. $Q_{BEP} = (FC_B - FC_A) / (v_A - v_B) = (200,000 - 160,000) / (150 - 100) = 40,000/50 = 800$
2. Total cost of Supplier A = $1000 \times 150 + 160,000 = \$310,000$; Total cost of Supplier B = $1000 \times 100 + 200,000 = \$300,000$
Thus, it will be better to go with Supplier B, since it will be less costly in total.
3. It will always be better to use the option with the lower variable cost for quantities greater than the break-even quantity.
This can also be proven as follows:

Let's see for what quantities Supplier B will be better than Supplier A. In that case, for the quantity Q, we need to have:

$$\begin{aligned} \text{Total cost of Supplier B} &< \text{Total cost of Supplier A} \\ &= 200,000 + 100Q < 160,000 + 150Q \\ &= 40,000 < 50Q \\ &= 800 < Q \end{aligned}$$

This means that for quantities above 800 units, Supplier B will be cheaper in total. Thus, for quantities less than 800, Supplier A will be cheaper in total.

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3.5: Observation Application Activity

Observation Application Activity

Overview/Purpose: The observations of real-world organizations provide students with opportunities to apply theoretical concepts. Those applications will enable students to make more informed career-related decisions.

Directions: Complete Part A and Part B of the assignment, in order, as outlined below:

Part A

Observe the facility of any grocery retailer.

- You may select any retailer that sells groceries (the larger the organization the better).
- Within your observation, make note of the layout of the facility, how the inventory is arranged, as well as the location of the facility.

Part B

After conducting the observation, reflect on how the data that you gathered about the facility relates to the course content that you have learned and answer each of the following questions:

- What is the organization's strategy for maintaining a competitive advantage? (Note: Research the organization to confirm.)
- Did your observations at the facility align with the organization's strategy for maintaining a competitive advantage? Explain.
- How did the location of the organization impact its competitiveness?
 - Consider each of the location factors that you learned about this week.
- How did the facility layout impact its competitiveness?
 - Consider the determinants of effective capacity that you learned about this week.
 - Note any process bottlenecks that you observed.
- Identify and describe two facility-related Key Performance Indicators (KPIs) that would be important for the organization to monitor.
 - Explain **why** each of the KPIs would be particularly important for the facility that you observed.

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CHAPTER OVERVIEW

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4.1: Overview and Guiding Questions

The Role of Critical Thinking in Making Informed Decisions

Within this section, students will learn how to use critical thinking to **make informed decisions**, and learn methods for **effectively communicating those decisions**.

Consider the following questions as you review the learning materials:

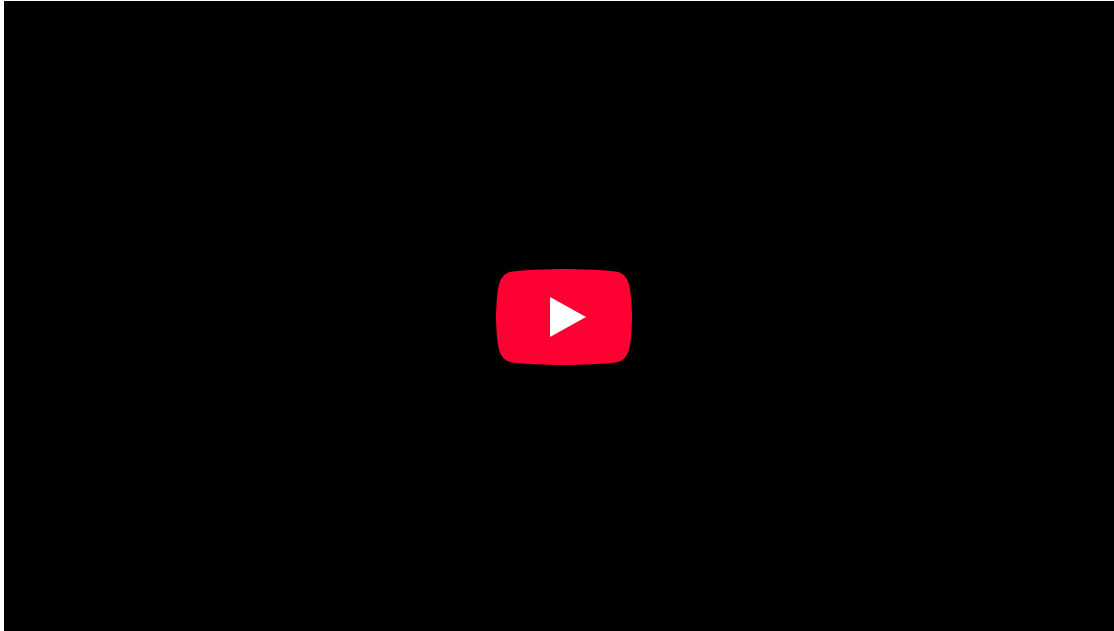
- What are common types of decisions leaders make in business?
 - What are the steps in the decision-making process?
 - How does critical thinking improve the decision-making process?
 - How do the needs of stakeholders impact the process for making and communicating decisions?
-

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4.2: Lessons on Decision-Making

The Importance of Informed Decision-Making

This week, we will examine the importance of making informed decisions. Before we begin, watch the following 6:08 video and consider how the use of data differs from relying on our gut instincts when making decisions:



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SECTION OVERVIEW

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4.3.1: Introduction to Managerial Decision Making

Managerial Decision Making

As you read this chapter, consider these questions:

1. What do managers do to help organizations achieve top performance?
2. What are the roles that managers play in organizations?
3. What are the characteristics that effective managers display?

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4.3.2: Overview of Managerial Decision-Making

Learning Objectives

1. Understand the basic characteristics of decision making

Decision-making is the action or process of thinking through possible options and selecting one.

It is important to recognize that managers are continually making decisions, and that the quality of their decision-making has an impact—sometimes quite significant—on the effectiveness of the organization and its stakeholders. Stakeholders are all the individuals or groups that are affected by an organization (such as customers, employees, shareholders, etc.).

Members of the top management team regularly make decisions that affect the future of the organization and all its stakeholders, such as deciding whether to pursue a new technology or product line. A good decision can enable the organization to thrive and survive long-term, while a poor decision can lead a business into bankruptcy. Managers at lower levels of the organization generally have a smaller impact on the organization's survival, but can still have a tremendous impact on their department and its workers. Consider, for example, a first-line supervisor who is charged with scheduling workers and ordering raw materials for her department. Poor decision-making by lower-level managers is unlikely to drive the entire firm out of existence, but it can lead to many adverse outcomes such as:

- reduced productivity if there are too few workers or insufficient supplies,
- increased expenses if there are too many workers or too many supplies, particularly if the supplies have a limited shelf life or are costly to store, and
- frustration among employees, reduced morale, and increased turnover (which can be costly for the organization) if the decisions involve managing and training workers.

Deciding When to Decide

While some decisions are simple, a manager's decisions are often complex ones that involve a range of options and uncertain outcomes. When deciding among various options and uncertain outcomes, managers need to gather information, which leads them to another necessary decision: how much information is needed to make a good decision? Managers frequently make decisions without complete information; indeed, one of the hallmarks of an effective leader is the ability to determine when to hold off on a decision and gather more information, and when to make a decision with the information at hand. Waiting too long to make a decision can be as harmful for the organization as reaching a decision too quickly. Failing to react quickly enough can lead to missed opportunities, yet acting too quickly can lead to organizational resources being poorly allocated to projects with no chance of success. Effective managers must decide when they have gathered enough information and must be prepared to change course if additional information becomes available that makes it clear that the original decision was a poor one. For individuals with fragile egos, changing course can be challenging because admitting to a mistake can be harder than forging ahead with a bad plan. Effective managers recognize that given the complexity of many tasks, some failures are inevitable. They also realize that it's better to minimize a bad decision's impact on the organization and its stakeholders by recognizing it quickly and correcting it.

What's the Right (Correct) Answer?

It's also worth noting that making decisions as a manager is not at all like taking a multiple-choice test: with a multiple-choice test there is always one right answer. This is rarely the case with management decisions. Sometimes a manager is choosing between multiple good options, and it's not clear which will be the best. Other times there are multiple bad options, and the task is to minimize harm. Often there are individuals in the organization with competing interests, and the manager must make decisions knowing that someone will be upset no matter what decision is reached.

What's the Right (Ethical) Answer?

Sometimes managers are asked to make decisions that go beyond just upsetting someone—they may be asked to make decisions in which harm could be caused to others. These decisions have ethical or moral implications. Ethics and morals refer to our beliefs about what is right vs. wrong, good vs. evil, virtuous vs. corrupt. Implicitly, ethics and morals relate to our interactions with and impact on others—if we never had to interact with another creature, we would not have to think about how our behaviors affected other individuals or groups. All managers, however, make decisions that impact others. It is therefore important to be mindful about whether our decisions have a positive or a negative impact. “Maximizing shareholder wealth” is often used as a rationalization for

placing the importance of short-term profits over the needs of others who will be affected by a decision—such as employees, customers, or local citizens (who might be affected, for example, by environmental decisions). Maximizing shareholder wealth is often a short-sighted decision, however, because it can harm the organization’s financial viability in the future.¹ Bad publicity, customers boycotting the organization, and government fines are all possible long-term outcomes when managers make choices that cause harm in order to maximize shareholder wealth. More importantly, increasing the wealth of shareholders is not an acceptable reason for causing harm to others.

As you can see from these brief examples, management is not for the faint of heart! It can, however, be incredibly rewarding to be in a position to make decisions that have a positive impact on an organization and its stakeholders. We see a great example of this in the Sustainability and Responsible Management box.

✓ Sustainability and Responsible Management: Brewing Sustainable Success

The focus of a manager or a business owner is often primarily on doing well (making a profit). Sometimes, though, organizational leaders choose to pursue two big goals at once: doing well, and simultaneously doing good (benefiting society in some way). Why? Generally because they think it’s an important thing to do. The business provides an opportunity to pursue another goal that the founders, owners, or managers are also passionate about. In the case of New Belgium Brewing, the company’s cofounders, Jeff Lebesch and Kim Jordan, were passionate about two things: making great beer and environmental stewardship. So it should come as no surprise that their brewery is dedicated to reducing its environmental footprint. The brewery has created a culture that fosters sustainability in a wide range of ways, such as by giving employees a bicycle on their one-year anniversary as a way to encourage them to ride bicycles to work. The organization is also active in advocacy efforts, such as the “Save the Colorado” (river) campaign, and it works hard to promote responsible decision-making when it comes to environmental issues. In fact, in 1999, following an employee vote, the brewery began to purchase all of its electricity from wind power, even though it was more expensive than electricity from coal-burning power plants (which meant reduced profitability and less money for employee bonuses).

While the brewery still relies primarily on wind power, it also now generates a portion of its electricity onsite—some from rooftop solar panels, and even more from biogas, the methane gas byproduct that is created by microbes in the brewery’s water treatment plant. The company cleans the wastewater generated from beer production, and in doing so it generates the biogas, which is captured and used for energy to help run the brewery.

Brewing is water intensive, so New Belgium works hard to reduce water consumption and to recycle the water that it does use. The company also reduces other types of waste by selling used grain, hops, and yeast to local ranchers for cattle feed. The company, which has been employee owned since 2013, also works with the local utility through a Smart Meter program to reduce their energy consumption at peak times.

All of these efforts at doing good must come at a cost, right? Actually, research shows that companies that are committed to sustainability have superior financial performance, on average, relative to those that are not. In coming up with creative ways to reduce, reuse, and recycle, employees often also find ways to save money (like using biogas). In addition, organizations that strive to do good are often considered attractive and desirable places to work (especially by people who have similar values) and are also valued by the surrounding communities. As a result, employees in those organizations tend to be extremely committed to them, with high levels of engagement, motivation, and productivity. Indeed, it seems clear that the employees at the New Belgium Brewery are passionate about where they work and what they do. This passion generates value for the organization and proves that it is, in fact, possible to do well while having also made the decision to do good. And in the case of New Belgium Brewery, that means working to protect the environment while also making delicious beer.

Discussion Questions

1. What challenges does New Belgium Brewery face in pursuing environmental goals?
2. Can you think of any other examples of companies that try to “do good” while also doing well?
3. Would you like to work for an organization that is committed to something more than just profitability, even if it meant your salary or bonus would be smaller?

Sources: Karen Crofton, “How New Belgium Brewery leads Colorado’s craft brewers in energy,”GreenBiz, August 1, 2014, <https://www.greenbiz.com/>. Darren Dahl, “How New Belgium Brewing Has Found Sustainable Success,”Forbes, February 8, 2016, <https://www.forbes.com/>. Jenny Foust, “New Belgium Brewing Once Again Named Platinum-Level Bicycle Friendly Business by the League of American Bicyclists,” Craft Beer.com, February 18, 2016. Robert G. Eccles, Ioannis Ioannou, &

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Concept Check

1. What are some positive outcomes of decision-making for an organization? What are some possible negative outcomes?
2. How is managerial decision-making different from a multiple-choice test?
3. In addition to the owners of a business, who are some of the other stakeholders that managers should consider when making decisions?

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4.3.3: How the Brain Processes Information to Make Decisions - Reflective and Reactive Systems

Learning Objectives

1. Understand the two systems of decision-making in the brain

The human brain processes information for decision-making using one of two routes: a reflective system and a reactive (or reflexive) system.^{2,3} The **reflective system** is logical, analytical, deliberate, and methodical, while the **reactive system** is quick, impulsive, and intuitive, relying on emotions or habits to provide cues for what to do next. Research in neuropsychology suggests that the brain can only use one system at a time for processing information [Darlow & Sloman] and that the two systems are directed by different parts of the brain. The prefrontal cortex is more involved in the reflective system, and the basal ganglia and amygdala (more primitive parts of the brain, from an evolutionary perspective) are more involved in the reactive system.⁴

Reactive Decision-Making

We tend to assume that the logical, analytical route leads to superior decisions, but whether this is accurate depends on the situation. The quick, intuitive route can be lifesaving; when we suddenly feel intense fear, a fight-or-flight response kicks in that leads to immediate action without methodically weighing all possible options and their consequences. Additionally, experienced managers can often make decisions very quickly because experience or expertise has taught them what to do in a given situation. These managers might not be able to explain the logic behind their decision, and will instead say they just went with their “gut,” or did what “felt” right. Because the manager has faced a similar situation in the past and has figured out how to deal with it, the brain shifts immediately to the quick, intuitive decision-making system.⁵

Reflective Decision-Making

The quick route is not always the best decision-making path to take, however. When faced with novel and complex situations, it is better to process available information logically, analytically, and methodically. As a manager, you need to think about whether a situation requires not a fast, “gut” reaction, but some serious thought prior to making a decision. It is especially important to pay attention to your emotions, because strong emotions can make it difficult to process information rationally. Successful managers recognize the effects of emotions and know to wait and address a volatile situation after their emotions have calmed down. Intense emotions—whether positive or negative—tend to pull us toward the quick, reactive route of decision making. Have you ever made a large “impulse” purchase that you were excited about, only to regret it later? This speaks to the power our emotions exert on our decision-making. Big decisions should generally not be made impulsively, but reflectively.

The Role of Emotions

Being aware of the role emotions play in decision-making does not mean that we should ignore them. Emotions can serve as powerful signals about what we should do, especially in situations with ethical implications. You can read more about this particular type of decision-making in the *Ethics in Practice* box later in this chapter. Thinking through how we feel about the possible options, and why we feel that way, can greatly enhance our decision-making.⁶ Effective decision-making, then, relies on both logic *and* emotions. For this reason, the concept of emotional intelligence has become popular as a characteristic of effective managers. **Emotional intelligence** is the ability to recognize, understand, pay attention to, and manage one’s own emotions and the emotions of others. It involves self-awareness and self-regulation—essentially, this is a toggling back and forth between emotions and logic so that we analyze and understand our own emotions and then exert the necessary control to manage them as appropriate for the situation. Emotional intelligence also involves empathy—the ability to understand other peoples’ emotions (and an interest in doing so). Finally, emotional intelligence involves social skills to manage the emotional aspects of relationships with others. Managers who are aware of their own emotions can think through what their emotions mean in a given situation and use that information to guide their decision-making. Managers who are aware of the emotions of others can also utilize that information to help groups function more effectively and engage in better group decision-making. While emotional intelligence seems to come easily to some people, it is something that we can develop and improve on with practice. A model of emotional intelligence is presented in Exhibit 2.2.



Exhibit 2.2 Emotional Intelligence (Attribution: Copyright Rice University, OpenStax, under CC-BY 4.0 license)

? Concept Check

1. Explain the two systems used by the brain in decision-making.
2. What is emotional intelligence, and why is it important for decision-making?

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4.3.4: Programmed and Nonprogrammed Decisions

Learning Objectives

1. Understand the difference between programmed and nonprogrammed decisions

Because managers have limited time and must use that time wisely to be effective, it is important for them to distinguish between decisions that can have structure and routine applied to them (called programmed decisions) and decisions that are novel and require thought and attention (nonprogrammed decisions).

Programmed Decisions

Programmed decisions are those that are repeated over time and for which an existing set of rules can be developed to guide the process. These decisions might simple, or they could be fairly complex, but the criteria that go into making the decision are all known or can at least be estimated with a reasonable degree of accuracy. For example, deciding how many raw materials to order should be a programmed decision based on anticipated production, existing stock, and anticipated length of time for the delivery of the final product. As another example, consider a retail store manager developing the weekly work schedule for part-time employees. The manager must consider how busy the store is likely to be, taking into account seasonal fluctuations in business. Then, she must consider the availability of the workers by taking into account requests for vacation and for other obligations that employees might have (such as school). Establishing the schedule might be complex, but it is still a programmed decision: it is made on a regular basis based on well understood criteria, so structure can be applied to the process. For programmed decisions, managers often develop **heuristics**, or mental shortcuts, to help reach a decision. For example, the retail store manager may not know how busy the store will be the week of a big sale, but might routinely increase staff by 30% every time there is a big sale (because this has been fairly effective in the past). Heuristics are efficient—they save time for the decision maker by generating an adequate solution quickly. Heuristics don't necessarily yield the optimal solution—deeper cognitive processing may be required for that. However, they generally yield a good solution. Heuristics are often used for programmed decisions, because experience in making the decision over and over helps the decision maker know what to expect and how to react. Programmed decision-making can also be taught fairly easily to another person. The rules and criteria, and how they relate to outcomes, can be clearly laid out so that a good decision can be reached by the new decision maker. Programmed decisions are also sometimes referred to as *routine* or *low-involvement* decisions because they don't require in-depth mental processing to reach a decision. High- and low-involvement decisions are illustrated in Exhibit 2.3.

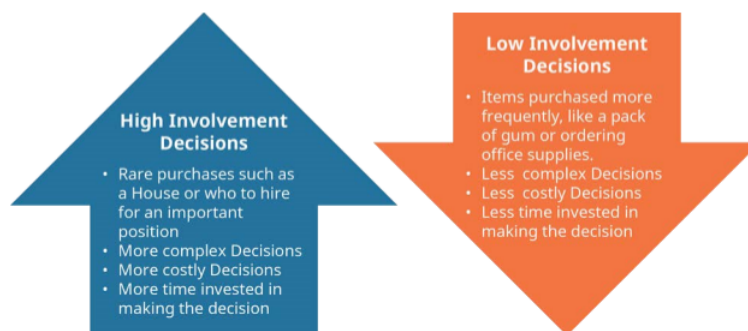


Exhibit 2.3 High-Involvement and Low-Involvement Decisions. (Attribution: Copyright Rice University, OpenStax, under CC-BY 4.0 license)

Nonprogrammed Decisions

In contrast, **nonprogrammed** decisions are novel, unstructured decisions that are generally based on criteria that are not well-defined. With nonprogrammed decisions, information is more likely to be ambiguous or incomplete, and the decision maker may need to exercise some thoughtful judgment and creative thinking to reach a good solution. These are also sometimes referred to as *nonroutine* decisions or as *high-involvement* decisions because they require greater involvement and thought on the part of the decision maker. For example, consider a manager trying to decide whether or not to adopt a new technology. There will always be unknowns in situations of this nature. Will the new technology really be better than the existing technology? Will it become widely accepted over time, or will some other technology become the standard? The best the manager can do in this situation is to gather

as much relevant information as possible and make an educated guess as to whether the new technology will be worthwhile. Clearly, nonprogrammed decisions present the greater challenge.

The Decision-Making Process While decisions makers can use mental shortcuts with programmed decisions, they should use a systematic process with nonprogrammed decisions. The decision-making process is illustrated in Exhibit 2.4 and can be broken down into a series of six steps, as follows:

1. Recognize that a decision needs to be made.
2. Generate multiple alternatives.
3. Analyze the alternatives.
4. Select an alternative.
5. Implement the selected alternative.
6. Evaluate its effectiveness.

While these steps may seem straightforward, individuals often skip steps or spend too little time on some steps. In fact, sometimes people will refuse to acknowledge a problem (Step 1) because they aren't sure how to address it. We'll discuss the steps more later in the chapter, when we review ways to improve the quality of decision-making.

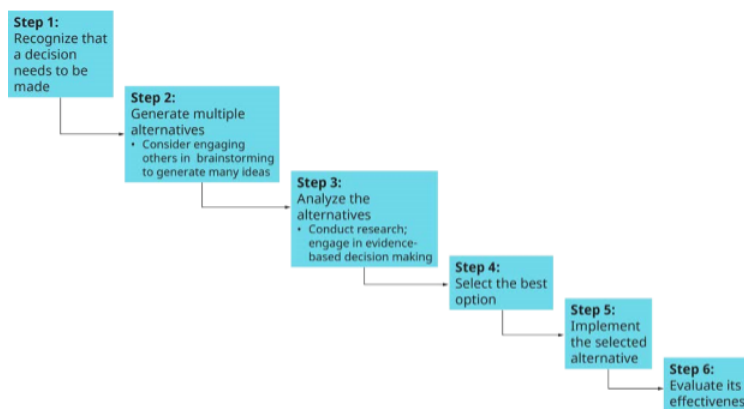


Exhibit 2.4 The Decision-Making Process. (Attribution: Copyright Rice University, OpenStax, under CC-BY 4.0 license)

You may notice similarities between the two systems of decision-making in our brains and the two types of decisions (programmed and nonprogrammed). Nonprogrammed decisions will generally need to be processed via the reflective system in our brains in order for us to reach a good decision. But with programmed decisions, heuristics can allow decision makers to switch to the quick, reactive system and then move along quickly to other issues.

? concept Check

1. Give an example of a programmed decision a manager might face.
2. Give an example of a nonprogrammed decision.
3. What are heuristics, and why are they helpful?
4. How are programmed and nonprogrammed decisions connected to the reflective and reactive systems in the brain?

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4.3.5: Barriers to Effective Decision-Making

Learning Objectives

1. Understand the barriers that exist that make effective decision making difficult.

There are a number of barriers to effective decision-making. Effective managers are aware of these potential barriers and try to overcome them as much as possible.

Bounded Rationality

While we might like to think that we can make completely rational decisions, this is often unrealistic given the complex issues faced by managers. Nonrational decision-making is common, especially with nonprogrammed decisions. Since we haven't faced a particular situation previously, we don't always know what questions to ask or what information to gather. Even when we have gathered all the possible information, we may not be able to make rational sense of all of it, or to accurately forecast or predict the outcomes of our choice. **Bounded rationality** is the idea that for complex issues we cannot be completely rational because we cannot fully grasp all the possible alternatives, nor can we understand all the implications of every possible alternative. Our brains have limitations in terms of the amount of information they can process. Similarly, as was alluded to earlier in the chapter, even when managers have the cognitive ability to process all the relevant information, they often must make decisions without first having time to collect all the relevant data—their information is incomplete.

Escalation of Commitment

Given the lack of complete information, managers don't always make the right decision initially, and it may not be clear that a decision was a bad one until after some time has passed. For example, consider a manager who had to choose between two competing software packages that her organization will use on a daily basis to enhance efficiency. She initially chooses the product that was developed by the larger, more well-established company, reasoning that they will have greater financial resources to invest in ensuring that the technology is good. However, after some time it becomes clear that the competing software package is going to be far superior. While the smaller company's product could be integrated into the organization's existing systems at little additional expense, the larger company's product will require a much greater initial investment, as well as substantial ongoing costs for maintaining it. At this point, however, let's assume that the manager has already paid for the larger company's (inferior) software. Will she abandon the path that she's on, accept the loss on the money that's been invested so far, and switch to the better software? Or will she continue to invest time and money into trying to make the first product work? **Escalation of commitment** is the tendency of decision makers to remain committed to poor decision, even when doing so leads to increasingly negative outcomes. Once we commit to a decision, we may find it difficult to reevaluate that decision rationally. It can seem easier to “stay the course” than to admit (or to recognize) that a decision was poor. It's important to acknowledge that not all decisions are going to be good ones, in spite of our best efforts. Effective managers recognize that progress down the wrong path isn't really progress, and they are willing to reevaluate decisions and change direction when appropriate.

Time Constraints

Managers often face time constraints that can make effective decision-making a challenge. When there is little time available to collect information and to rationally process it, we are much less likely to make a good nonprogrammed decision. Time pressures can cause us to rely on heuristics rather than engage in deep processing. While heuristics save time, however, they don't necessarily lead to the best possible solution. The best managers are constantly assessing the risks associated with acting too quickly against those associated with not acting quickly enough.

Uncertainty

In addition, managers frequently make decisions under conditions of uncertainty—they cannot know the outcome of each alternative until they've actually chosen that alternative. Consider, for example, a manager who is trying to decide between one of two possible marketing campaigns. The first is more conservative but is consistent with what the organization has done in the past. The second is more modern and edgier, and might bring much better results . . . or it might be a spectacular failure. The manager making the decision will ultimately have to choose one campaign and see what happens, without ever knowing what the results would have been with the alternate campaign. That uncertainty can make it difficult for some managers to make decisions, because committing to one option means forgoing other options.

Personal Biases

Our decision-making is also limited by our own biases. We tend to be more comfortable with ideas, concepts, things, and people that are familiar to us or similar to us. We tend to be less comfortable with that which is unfamiliar, new, and different. One of the most common biases that we have, as humans, is the tendency to like other people who we think are similar to us (because we like ourselves).⁷ While these similarities can be observable (based on demographic characteristics such as race, gender, and age), they can also be a result of shared experiences (such as attending the same university) or shared interests (such as being in a book club together). This “similar to me” bias and preference for the familiar can lead to a variety of problems for managers: hiring less-qualified applicants because they are similar to the manager in some way, paying more attention to some employees’ opinions and ignoring or discounting others, choosing a familiar technology over a new one that is superior, sticking with a supplier that is known over one that has better quality, and so on.

It can be incredibly difficult to overcome our biases because of the way our brains work. The brain excels at organizing information into categories, and it doesn’t like to expend the effort to re-arrange once the categories are established. As a result, we tend to pay more attention to information that confirms our existing beliefs and less attention to information that is contrary to our beliefs, a shortcoming that is referred to as **confirmation bias**.⁸

In fact, we don’t like our existing beliefs to be challenged. Such challenges feel like a threat, which tends to push our brains towards the reactive system and prevent us from being able to logically process the new information via the reflective system. It is hard to change people’s minds about something if they are already confident in their convictions. So, for example, when a manager hires a new employee who she really likes and is convinced is going to be excellent, she will tend to pay attention to examples of excellent performance and ignore examples of poor performance (or attribute those events to things outside the employee’s control). The manager will also tend to trust that employee and therefore accept their explanations for poor performance without verifying the truth or accuracy of those statements. The opposite is also true; if we dislike someone, we will pay attention to their negatives and ignore or discount their positives. We are less likely to trust them or believe what they say at face value. This is why politics tend to become very polarized and antagonistic within a two-party system. It can be very difficult to have accurate perceptions of those we like and those we dislike. The effective manager will try to evaluate situations from multiple perspectives and gather multiple opinions to offset this bias when making decisions.

Conflict

Finally, effective decision-making can be difficult because of conflict. Most individuals dislike conflict and will avoid it when possible. However, the best decision might be one that is going to involve some conflict. Consider a manager who has a subordinate who is often late to work, causing others to have to step away from their responsibilities in order to cover for the late employee. The manager needs to have a conversation with that employee to correct the behavior, but the employee is not going to like the conversation and may react in a negative way. Both of them are going to be uncomfortable. The situation is likely to involve conflict, which most people find stressful. Yet, the correct decision is still to have the conversation even if (or especially if) the employee otherwise is an asset to the department.



Exhibit 2.5 Dante Disparte Dante Disparte is the founder and CEO of Risk Cooperative and also coauthor of *Global Risk Agility and Decision Making*. He suggests that unforeseen and unanticipated risks are becoming more frequent and less predictable and are having a greater impact on more people at one time. Credit (New America/ flickr/ Attribution 2.0 Generic (CC BY 2.0))

If the bad behavior is not corrected, it will continue, which is going to cause more problems in the workplace in the long run. Other employees may recognize that this behavior is allowed, and they may also start coming to work late or engaging in other negative behaviors. Eventually, some employees may become sufficiently frustrated that they look for another place to work. It's worth noting that in this situation, the best employees will find new jobs the most quickly. It's important for managers to recognize that while conflict can be uncomfortable (especially in the short-term), there are times when it is necessary for the group, department, or organization to function effectively in the long run.

It is also helpful to think about conflict in terms of process conflict or relationship conflict.⁹ **Process conflict**, conflict about the best way to do something, can actually lead to improved performance, as individuals explore various options together in order to identify superior solutions. **Relationship conflict** is conflict between individuals that is more personal and involves attacks on a person rather than an idea. This kind of conflict is generally harmful and should be quelled when possible. The harm from relationship conflict arises at least in part because feeling personally attacked will cause an individual to revert to the reactive system of the brain.

Effective managers should be particularly aware of the possibility of relationship conflict when giving feedback and should keep feedback focused on behaviors and activities (how things are done) rather than on the individual. Being aware of and dealing with relationship conflict points to why emotional intelligence and empathy are beneficial in organizational leaders. Such leaders are more likely to be attentive to the harmful consequences of relationship conflict. The “Managerial Leadership” segment shows how one CEO encourages empathetic collaboration and how that effort is proving beneficial.

✓ Managerial Leadership

Satya Nadella's Transformation of Microsoft

When Satya Nadella became the CEO of Microsoft in 2014, he set in motion a major transformation of the organization's culture. He wanted it to shift from a culture that valued “know-it-all” to one that values “learn-it-all.” Instead of employees feeling the need to prove that they were the smartest person in the room, he wanted them to become curious and effective listeners, learners, and communicators. Only through continual learning and collaboration with one another, and with customers, would Microsoft remain able to develop and provide great technology solutions.

One of Nadella's first mandates as CEO was to ask all the members of the top management team to read the book *Nonviolent Communication* by Marshall Rosenberg. The primary focus of the book is on empathetic communication—a kinder, gentler approach than Microsoft employees were accustomed to. Nadella believes that developing empathy leads to a heightened understanding of consumer needs and wants and an enhanced ability to develop better products and services through collaboration.

Nadella has also embraced diversity and inclusion initiatives, though he readily acknowledges that there is more to be done. This is, in part, an extension of his focus on empathy. However, it's also good business, because increasing the diversity of perspectives can help to drive innovation.

This cultural shift is reflected in Microsoft's new mission statement: "To empower every person and every organization on the planet to achieve more." Empowering every person includes Microsoft's own employees. Achieving diversity is particularly a challenge in an industry that is male dominated, and Nadella admits that he has made mistakes based on his own biases. At a Women in Computing conference early in his tenure as CEO, Nadella suggested that women did not need to ask for raises when they deserved them; the system, he said, would work it out. He later admitted that he was wrong and used the mistake as a platform for making greater strides in this arena.

Senior management team meetings at Microsoft have apparently changed dramatically as a result of the culture change driven by Nadella. Previously, members felt the need to constantly prove that they knew all the right answers at team meetings. Nadella has established different norms; he seeks out honest opinions from team members and gives positive feedback on a regular basis. By moving the focus away from always being right and toward a focus of continual learning, the culture at Microsoft has become more collaborative, and employees are more willing to take risks to create something amazing. The culture shift seems to be paying off: Microsoft's products are being described as "cool" and "exciting," its cloud-computing platform is outperforming the competition, and its financial performance has improved dramatically. Transforming the culture of an organization is a massive undertaking, but Nadella's leadership of Microsoft clearly shows that it's a decision that can pay off.

Discussion Questions

1. Do you think a culture focused on learning makes sense for Microsoft? Why or why not?
2. What are the advantages of a culture that emphasizes empathetic communication? Can you think of any disadvantages?
3. The job of CEO means making big decisions that impact the entire organization—like deciding to change the culture. How do you think you prepare for that job?

Sources: Kendall Baker, "Confirmed: Microsoft is a legit threat to Apple," *The Hustle*, March 16, 2017. Bob Evans, "10 Powerful examples of Microsoft CEO Satya Nadella's Transformative Vision," *Forbes*, July 26, 2017. Harry McCracken, "Satya Nadella Rewrites Microsoft's Code," *Fast Company*, September 18, 2017, www.fastcompany.com/40457458...icrosofts-code. Annie Palmer, "Microsoft has been reborn under CEO Satya Nadella," *The Street*, September 20, 2017.

✓ Concept Check

1. Explain the concept of confirmation bias.
2. List and describe at least three barriers to effective decision-making.
3. When is conflict beneficial, and when is it harmful? Why?

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4.3.6: Improving the Quality of Decision-Making

Learning Objectives

1. Understand how a manager can improve his or her individual decision making.

Managers can use a variety of techniques to improve their decision-making by making better-quality decisions or making decisions more quickly. Table 2.1 summarizes some of these tactics.

Type of Decision	Technique	Benefit
Programmed Decisions	Heuristics (mental shortcuts)	Saves Time
	Satisficing (choosing first acceptable solution)	Saves Time
Nonprogrammed Decisions	Systematically go through the six steps of the decision-making process	Improves quality
	Talk to other people	Improves quality; generates more options, reduces bias
	Be creative	Improves quality; generates more options
	Conduct research; engage in evidence based decision-making	Improves quality
	Engage in critical thinking	Improves quality
	Think about the long term implications	Improves quality
	Consider the ethical implications	Improves quality

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The Importance of Experience

An often overlooked factor in effective decision-making is experience. Managers with more experience have generally learned more and developed greater expertise that they can draw on when making decisions. Experience helps managers develop methods and heuristics to quickly deal with programmed decisions and helps them know what additional information to seek out before making a nonprogrammed decision.

Techniques for Making Better Programmed Decisions

In addition, experience enables managers to recognize when to minimize the time spent making decisions on issues that are not particularly important but must still be addressed. As discussed previously, heuristics are mental shortcuts that managers take when making programmed (routine, low-involvement) decisions. Another technique that managers use with these types of decisions is **satisficing**. When satisficing, a decision maker selects the first *acceptable* solution without engaging in additional effort to identify the *best* solution. We all engage in satisficing every day. For example, suppose you are shopping for groceries and you don't want to overspend. If you have plenty of time, you might compare prices and figure out the price by weight (or volume) to ensure that every item you select is the cheapest option. But if you are in a hurry, you might just select generic products, knowing that they are cheap enough. This allows you to finish the task quickly at a reasonably low cost.

Techniques for Making Better Nonprogrammed Decisions

For situations in which the quality of the decision is more critical than the time spent on the decision, decision makers can use several tactics. As stated previously, nonprogrammed decisions should be addressed using a systematic process. We therefore discuss these tactics within the context of the decision-making steps. To review, the steps include the following:

1. Recognize that a decision needs to be made.

2. Generate multiple alternatives.
3. Analyze the alternatives.
4. Select an alternative.
5. Implement the selected alternative.
6. Evaluate its effectiveness.

Step 1: Recognizing That a Decision Needs to Be Made

Ineffective managers will sometimes ignore problems because they aren't sure how to address them. However, this tends to lead to more and bigger problems over time. Effective managers will be attentive to problems and to opportunities and will not shy away from making decisions that could make their team, department, or organization more effective and more successful.

Step 2: Generating Multiple Alternatives

Often a manager only spends enough time on Step 2 to generate two alternatives and then quickly moves to Step 3 in order to make a quick decision. A better solution may have been available, but it wasn't even considered. It's important to remember that for nonprogrammed decisions, you don't want to rush the process. Generating many possible options will increase the likelihood of reaching a good decision. Some tactics to help with generating more options include talking to other people (to get their ideas) and thinking creatively about the problem.

Talk to other people

Managers can often improve the quality of their decision-making by involving others in the process, especially when generating alternatives. Other people tend to view problems from different perspectives because they have had different life experiences. This can help generate alternatives that you might not otherwise have considered. Talking through big decisions with a mentor can also be beneficial, especially for new managers who are still learning and developing their expertise; someone with more experience will often be able to suggest more options.

Be creative

We don't always associate management with creativity, but creativity can be quite beneficial in some situations. In decision-making, creativity can be particularly helpful when generating alternatives. **Creativity** is the generation of new or original ideas; it requires the use of imagination and the ability to step back from traditional ways of doing things and seeing the world. While some people seem to be naturally creative, it is a skill that you can develop. Being creative requires letting your mind wander and combining existing knowledge from past experiences in novel ways. Creative inspiration may come when we least expect it (in the shower, for example) because we aren't intensely focused on the problem—we've allowed our minds to wander. Managers who strive to be creative will take the time to view a problem from multiple perspectives, try to combine information in new ways, search for overarching patterns, and use their imaginations to generate new solutions to existing problems. We'll review creativity in more detail in Chapter 18.

Step 3: Analyzing Alternatives

When implementing Step 3, it is important to take many factors into consideration. Some alternatives might be more expensive than others, for example, and that information is often essential when analyzing options. Effective managers will ensure that they have collected sufficient information to assess the quality of the various options. They will also utilize the tactics described below: engaging in evidence-based decision-making, thinking critically, talking to other people, and considering long-term and ethical implications.

Do you have the best-quality data and evidence?

Evidence-based decision-making is an approach to decision-making that states that managers should systematically collect the best evidence available to help them make effective decisions. The evidence that is collected might include the decision maker's own expertise, but it is also likely to include external evidence, such as a consideration of other stakeholders, contextual factors relevant to the organization, potential costs and benefits, and other relevant information. With evidence-based decision-making, managers are encouraged to rely on data and information rather than their intuition. This can be particularly beneficial for new managers or for experienced managers who are starting something new. (Consider all the research that Rubio and Korey conducted while starting Away).

Talk to other people

As mentioned previously, it can be worthwhile to get help from others when generating options. Another good time to talk to other people is while analyzing those options; other individuals in the organization may help you assess the quality of your choices. Seeking out the opinions and preferences of others is also a great way to maintain perspective, so getting others involved can help you to be less biased in your decision-making (provided you talk to people whose biases are different from your own).

Are you thinking critically about the options?

Our skill at assessing alternatives can also be improved by a focus on **critical thinking**. Critical thinking is a disciplined process of evaluating the quality of information, especially data collected from other sources and arguments made by other people, to determine whether the source should be trusted or whether the argument is valid.

An important factor in critical thinking is the recognition that a person's analysis of the available information may be flawed by a number of *logical fallacies* that they may use when they are arguing their point or defending their perspective. Learning what those fallacies are and being able to recognize them when they occur can help improve decision-making quality. See Table 2.2 for several examples of common logical fallacies.

Name	Description	Examples	Ways to Combat This Logical Fallacy
Non sequitur (does not follow)	The conclusion that is presented isn't a logical conclusion or isn't the only logical conclusion based on the argument(s).	Our biggest competitor is spending more on marketing than we are. They have a larger share of the market. Therefore, we should spend more on marketing. The unspoken assumption: They have a larger share of the market BECAUSE they spend more on marketing	<ul style="list-style-type: none"> Examine all the arguments. Are they reasonable? Look for any assumptions that are being made in the argument sequence. Are they reasonable? Try to gather evidence that supports or refutes the arguments and/or assumptions. <p>In this example, you should ask: Are there any other reasons, besides their spending on marketing, why our competitor has a larger share of the market?</p>
False cause	Assuming that because two things are related, one caused the other	"Our employees get sick more when we close for holidays. So we should stop closing for holidays."	<p>This is similar to non sequitur; it makes an assumption in the argument sequence.</p> <ul style="list-style-type: none"> Ask yourself whether the first thing really causes the second, or if something else may be the cause. <p>In this case, most holidays for which businesses close are in the late fall and winter (Thanksgiving, Christmas), and there are more illnesses at this time of year because of the weather, not because of the business being closed.</p>

Ad hominem (attack the man)	Redirects from the argument itself to attack the person making the argument	<p>“You aren’t really going to take John seriously, are you? I heard his biggest client just dropped him for another vendor because he’s all talk and no substance.”</p> <p>The goal:if you stop trusting the person, you’ll discount their argument.</p>	<ul style="list-style-type: none"> • Does the second person have something to gain, a hidden agenda, in trying to make you distrust the first person? • If the first person’s argument came from someone else, would it be persuasive?
Genetic fallacy	You can’t trust something because of its origins	<p>“This was made in China, so it must be low quality.”</p> <p>“He is a lawyer, so you can’t trust anything he says.”</p>	<p>This fallacy is based on stereotypes. Stereotypes are generalizations; some are grossly inaccurate, and even those that are accurate in SOME cases are never accurate in ALL cases. Recognize this for what it is—an attempt to prey on existing biases.</p>
Appeal to tradition	If we have always done it one particular way, that must be the right or best way	<p>“We’ve always done it this way.” “We shouldn’t change this; it works fine the way it is.”</p>	<ul style="list-style-type: none"> • Consider whether the situation has changed, calling for a change in the way things are being done. • Consider whether new information suggests that the traditional viewpoint is incorrect. Remember, we used to think that the earth was flat.
Bandwagon approach	If the majority of people are doing it, it must be good.	<p>“Everybody does it.”</p> <p>“Our customers don’t want to be served by people like that.”</p>	<ul style="list-style-type: none"> • Remember that the majority is sometimes wrong, and what is popular isn’t always what is right. • Ask yourself whether “following the pack” is going to get you where you want to be. • Remember that organizations are usually successful by being better than their competitors at something . . . so following the crowd might not be the best approach to success
Appeal to emotion	Redirects the argument from logic to emotion	<p>“We should do it for [recently deceased] Steve; it’s what he would have wanted.”</p>	<ul style="list-style-type: none"> • Develop your awareness of your own emotions, and recognize when someone is trying to use them. • Ask yourself whether the argument stands on its own without the appeal to your emotions.

Table 2.2(Attribution: Copyright Rice University, OpenStax, under CC-BY 4.0 license)

Have you considered the long-term implications?

A focus on immediate, short-term outcomes—with little consideration for the future—can cause problems. For example, imagine that a manager must decide whether to issue dividends to investors or put that money into research and development to maintain a pipeline of innovative products. It’s tempting to just focus on the short-term: providing dividends to investors tends to be good for stock prices. But failing to invest in research and development might mean that in five years the company is unable to compete effectively in the marketplace, and as a result the business closes. Paying attention to the possible long-term outcomes is a crucial part of analyzing alternatives.

Are there ethical implications?

It’s important to think about whether the various alternatives available to you are better or worse from an ethical perspective, as well. Sometimes managers make unethical choices because they haven’t considered the ethical implications of their actions. In the 1970s, Ford manufactured the Pinto, which had an unfortunate flaw: the car would easily burst into flames when rear-ended. The company did not initially recall the vehicle because they viewed the problem from a financial perspective, without considering the ethical implications.¹⁰ People died as a result of the company’s inaction. Unfortunately, these unethical decisions continue to occur—and cause harm—on a regular basis in our society. Effective managers strive to avoid these situations by thinking through the possible ethical implications of their decisions. The decision tree in Exhibit 2.6 is a great example of a way to make managerial decisions while also taking ethical issues into account.

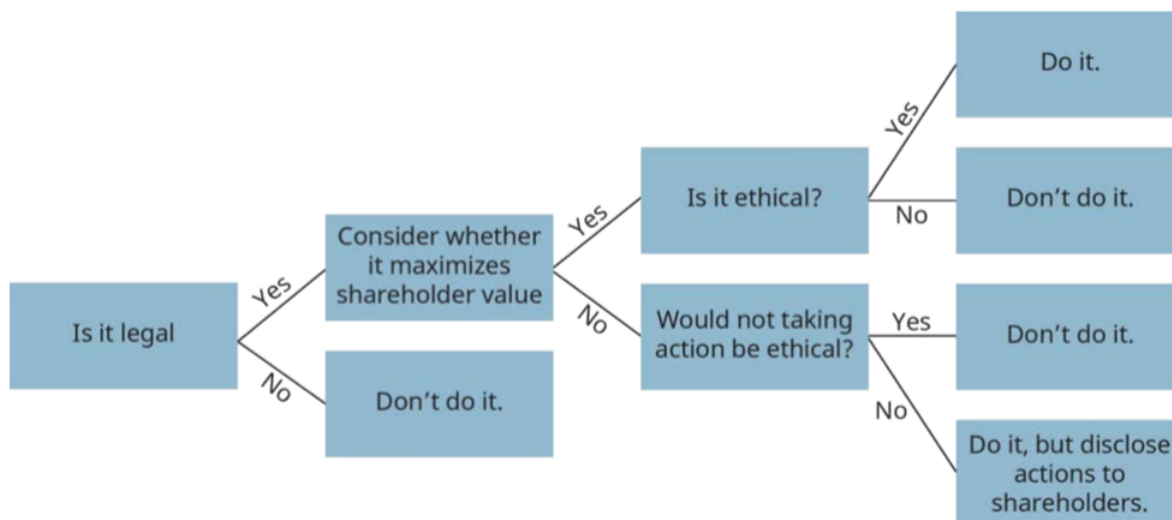


Exhibit 2.6 Ethical Decision Tree (Attribution: Copyright Rice University, OpenStax, under CC-BY 4.0 license)

Thinking through the steps of ethical decision-making may also be helpful as you strive to make good decisions. James Rest’s ethical decision-making model¹¹ identifies four components to ethical decision making:

1. Moral sensitivity—recognizing that the issue has a moral component;
2. Moral judgment—determining which actions are right vs. wrong;
3. Moral motivation/intention—deciding to do the right thing; and
4. Moral character/action—actually doing what is right.

Note that a failure at any point in the chain can lead to unethical actions! Taking the time to identify possible ethical implications will help you develop moral sensitivity, which is a critical first step to ensuring that you are making ethical decisions.

Once you have determined that a decision has ethical implications, you must consider whether your various alternatives are right or wrong—whether or not they will cause harm, and if so, how much and to whom. This is the moral judgment component. If you aren’t sure about whether something is right or wrong, think about how you would feel if that decision ended up on the front page of a major newspaper. If you would feel guilty or ashamed, don’t do it! Pay attention to those emotional cues—they are providing important information about the option that you are contemplating.

The third step in the ethical decision-making model involves making a decision to do what is right, and the fourth step involves following through on that decision. These may sound, but consider a situation in which your boss tells you to do something that

you know to be wrong. When you push back, your boss makes it clear that you will lose your job if you don't do what you've been told to do. Now, consider that you have family at home who rely on your income. Making the decision to do what you know is right could come at a substantial cost to you personally. In these situations, your best course of action is to find a way to persuade your boss that the unethical action will cause greater harm to the organization in the long-term.

Step 4: Selecting an Alternative

Once alternative options have been generated and analyzed, the decision maker must select one of the options. Sometimes this is easy—one option is clearly superior to the others. Often, however, this is a challenge because there is not a clear “winner” in terms of the best alternative. As mentioned earlier in the chapter, there may be multiple good options, and which one will be best is unclear even after gathering all available evidence. There may not be a single option that doesn't upset some stakeholder group, so you will make someone unhappy no matter what you choose. A weak decision maker may become paralyzed in this situation, unable to select among the various alternatives for lack of a clearly “best” option. They may decide to keep gathering additional information in hopes of making their decision easier. As a manager, it's important to think about whether the benefit of gathering additional information will outweigh the cost of waiting. If there are time pressures, waiting may not be possible.

Recognize that perfection is unattainable

Effective managers recognize that they will not always make optimal (best possible) decisions because they don't have complete information and/or don't have the time or resources to gather and process all the possible information. They accept that their decision-making will not be perfect and strive to make good decisions overall. Recognizing that perfection is impossible will also help managers to adjust and change if they realize later on that the selected alternative was not the best option.

Talk to other people

This is another point in the process at which talking to others can be helpful. Selecting one of the alternatives will ultimately be your responsibility, but when faced with a difficult decision, talking through your choice with someone else may help you clarify that you are indeed making the best possible decision from among the available options. Sharing information verbally also causes our brains to process that information differently, which can provide new insights and bring greater clarity to our decision-making.

Step 5: Implementing the Selected Alternative

After selecting an alternative, you must implement it. This may seem too obvious to even mention, but implementation can sometimes be a challenge, particularly if the decision is going to create conflict or dissatisfaction among some stakeholders. Sometimes we know what we need to do but still try to avoid actually doing it because we know others in the organization will be upset—even if it's the best solution. Follow-through is a necessity, however, to be effective as a manager. If you are not willing to implement a decision, it's a good idea to engage in some self-reflection to understand why. If you know that the decision is going to create conflict, try to think about how you'll address that conflict in a productive way. It's also possible that we feel that there is no good alternative, or we are feeling pressured to make a decision that we know deep down is not right from an ethical perspective. These can be among the most difficult of decisions. You should always strive to make decisions that you feel good about—which means doing the right thing, even in the face of pressures to do wrong.

Step 6: Evaluating the Effectiveness of Your Decision

Managers sometimes skip the last step in the decision-making process because evaluating the effectiveness of a decision takes time, and managers, who are generally busy, may have already moved on to other projects. Yet evaluating effectiveness is important. When we fail to evaluate our own performance and the outcomes of our decisions, we cannot learn from the experience in a way that enables us to improve the quality of our future decisions.

Attending fully to each step in the decision-making process improves the quality of decision-making and, as we've seen, managers can engage in a number of tactics to help them make good decisions. Take a look at the *Ethics in Practice* box to see an example of how one particular manager puts these techniques into practice to make good decisions.

✓ Ethics In Practice

Rob Ault, Project Manager, Bayside Community Church

Bradenton, Florida

When it comes to decision-making, ethical dilemmas require particular care. Because managers make many decisions, it should not be surprising that some of those decisions will have ethical implications. With multiple stakeholders to consider, sometimes what is best for one group of stakeholders is not what is best for others. I talked to Rob Ault about his experiences with ethical dilemmas over the course of his career. Rob has been in managerial roles for over 25 years, since he was 19 years old. He told me that he had experienced a number of ethical dilemmas in that time.

Rob has spent most of his career working for for-profit organizations, and for about half of that time he has worked in a union environment. What he has found most frustrating, regardless of environment, was when it was clear to him what was right, but what was right conflicted with what his boss was telling him to do. This included a situation in which he felt an employee should be fired for misbehavior (but wasn't), as well as situation in which he was asked to fire someone undeservedly. What we mostly talked about, though, was his process. How did he go about making decisions in these challenging situations?

Rob clearly stated that his approach to these situations has changed with experience. What he did early in his career is not necessarily what he would do now. He said that it takes experience and some maturity to recognize that, as a leader, the decisions you make affect other people's lives. He also explained that a starting point for the decision-making process is always a recognition of the fact that you have been hired to generate a benefit for your company. So a manager's decisions need to come from the perspective of what is going to be in the best long-term interest of the organization (in addition to what is morally right). This isn't always easy, because short-term consequences are much easier to observe and predict.

I asked Rob who he talked to prior to making decisions in situations with an ethical component. Rob told me that he felt one of the most important things you should do as a leader is to intentionally create and build relationships with people you trust in the organization. That way you have people you know you can talk to when difficult situations come up. He was very clear that you should always talk to your boss, who will tend to have a broader understanding of what is going on in the context of the larger organization. He also told me that he liked to talk to his father, who happened to work in human resource management for a large Fortune 500 organization. His father was always helpful in providing the perspective of how things were likely to play out long-term if one person was allowed to bend the rules. Rob realized eventually that the long-term consequences of this were almost always negative: once one person is allowed to misbehave, others find out about it and realize that they can do the same thing without repercussions. Rob also seeks out the opinions of other individuals in the organization before reaching decisions with an ethical component; he told me that when he worked in a union environment, he tried to make sure he had a good relationship with the union steward, because it was helpful to get the perspective of someone who was committed to the side of the employee.

The biggest ethical dilemma Rob faced was one that he actually couldn't talk to me about. He disagreed with what he was being asked to do, and when it was clear that he had no other choice in the matter, he quit his job rather than do something he felt wasn't right. He accepted a severance package in exchange for signing a nondisclosure agreement, which is why he can't share any details . . . but it was clear from our conversation that he feels he made the right choice. That particular ethical dilemma makes it clear how challenging managerial decision-making can sometimes be.

Discussion Questions

1. If you were faced with an ethical dilemma, from whom would you seek advice?
2. Describe some decisions that might be good for an organization's profitability in the short-term, but bad for the organization in the long-term.
3. What factors would you take into consideration if you were thinking about leaving your job rather than do something unethical?

? Concept Check

1. Explain what satisficing is and when it may be a good strategy.
2. What are the six steps in the decision-making process?
3. What are the four steps involved in ethical decision-making?

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4.3.7: Group Decision-Making

Learning Objectives

1. Understand the advantages and disadvantages of group decision-making, and how managers can improve the quality of group decision-making

Involving more people in the decision-making process can greatly improve the quality of a manager's decisions and outcomes. However, involving more people can also increase conflict and generate other challenges. We turn now to the advantages and disadvantages of group decision-making.

Advantages of Group Decisions

An advantage to involving groups in decision-making is that you can incorporate different perspectives and ideas. For this advantage to be realized, however, you need a diverse group. In a diverse group, the different group members will each tend to have different preferences, opinions, biases, and stereotypes. Because a variety of viewpoints must be negotiated and worked through, group decision-making creates additional work for a manager, but (provided the group members reflect different perspectives) it also tends to reduce the effects of bias on the outcome. For example, a hiring committee made up of all men might end up hiring a larger proportion of male applicants (simply because they tend to prefer people who are more similar to themselves). But with a hiring committee made up of an equal number of men and women, the bias should be cancelled out, resulting in more applicants being hired based on their qualifications rather than their physical attributes.

Having more people involved in decision-making is also beneficial because each individual brings unique information or knowledge to the group, as well as different perspectives on the problem. Additionally, having the participation of multiple people will often lead to more options being generated and to greater intellectual stimulation as group members discuss the available options. **Brainstorming** is a process of generating as many solutions or options as possible and is a popular technique associated with group decision-making.

All of these factors can lead to superior outcomes when groups are involved in decision-making. Furthermore, involving people who will be affected by a decision in the decision-making process will allow those individuals to have a greater understanding of the issues or problems and a greater commitment to the solutions.

Disadvantages of Group Decisions

Group decision-making is not without challenges. Some groups get bogged down by conflict, while others go to the opposite extreme and push for agreement at the expense of quality discussions. **Groupthink** occurs when group members choose not to voice their concerns or objections because they would rather keep the peace and not annoy or antagonize others. Sometimes groupthink occurs because the group has a positive team spirit and camaraderie, and individual group members don't want that to change by introducing conflict. It can also occur because past successes have made the team complacent.

Often, one individual in the group has more power or exerts more influence than others and discourages those with differing opinions from speaking up (**suppression of dissent**) to ensure that only their own ideas are implemented. If members of the group are not really contributing their ideas and perspectives, however, then the group is not getting the benefits of group decision-making.

How to Form a Quality Group

Effective managers will try to ensure quality group decision-making by forming groups with diverse members so that a variety of perspectives will contribute to the process. They will also encourage everyone to speak up and voice their opinions and thoughts prior to the group reaching a decision. Sometimes groups will also assign a member to play the **devil's advocate** in order to reduce groupthink. The devil's advocate intentionally takes on the role of critic. Their job is to point out flawed logic, to challenge the group's evaluations of various alternatives, and to identify weaknesses in proposed solutions. This pushes the other group members to think more deeply about the advantages and disadvantages of proposed solutions before reaching a decision and implementing it.



Exhibit 2.7 The Devils Advocate At a meeting of McDonald’s franchise owners, attorney Brian Schnell was placed in the audience as a devil’s advocate and often would strongly disagree with franchisee attorney Bob Zarco that the National Labor Relations Board (NLRB)’s jointemployer ruling on McDonald’s is a boon for franchisees. He would raise his hand often and vehemently, which Zarco had asked him to do before the meeting. In that way, the franchisors’ articulate arguments could be heard by all franchisee leaders in attendance, and rebutted. Credit (Mr. Blue MauMau/ flickr/ Attribution 2.0 Generic (CC BY 2.0))

The methods we’ve just described can all help ensure that groups reach good decisions, but what can a manager do when there is too much conflict within a group? In this situation, managers need to help group members reduce conflict by finding some common ground—areas in which they can agree, such as common interests, values, beliefs, experiences, or goals. Keeping a group focused on a common goal can be a very worthwhile tactic to keep group members working with rather than against one another. Table 2.3 summarizes the techniques to improve group decision-making.

Type of Decision	Technique	Benefit
Group decisions	Have diverse members in the group.	Improves quality: generates more options, reduces bias
	Assign a devil’s advocate.	Improves quality: reduces groupthink
	Encourage everyone to speak up and contribute.	Improves quality: generates more options, prevents suppression of dissent
	Help group members find common ground.	Improves quality: reduces personality conflict

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Conclusion

Decision-making is a crucial daily activity for managers. Decisions range from small and simple, with straightforward answers, to big and complex, with little clarity about what the best choice will be. Being an effective manager requires learning how to successfully navigate all kinds of decisions. Expertise, which develops gradually through learning and experience, generally improves managerial decision-making, but managers rarely rely solely on their own expertise. They also conduct research and collect information from others; they pay attention to their own biases and to ethical implications; and they think critically about the information that they have received to make decisions that will benefit the organization and its stakeholders.

? Concept Check

1. Explain why group decision-making can be more effective than individual decision-making.
2. What are some things that can prevent groups from making good decisions?
3. As a manager, what can you do to enhance the quality of group decision-making?

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4.3.8: Summary

Key Terms

Bounded rationality

The concept that when we make decisions, we cannot be fully rational because we don't have all the possible information or the cognitive processing ability to make fully informed, completely rational decisions.

Brainstorming

A process of generating as many ideas or alternatives as possible, often in groups.

Confirmation Bias

The tendency to pay attention to information that confirms our existing beliefs and to ignore or discount information that conflicts with our existing beliefs.

Creativity

The generation of new or original ideas.

Critical Thinking

A disciplined process of evaluating the quality of information, especially by identifying logical fallacies in arguments.

Decision-making

The action or process of thinking through possible options and selecting one.

Devil's Advocate

A group member who intentionally takes on the role of being critical of the group's ideas in order to discourage groupthink and encourage deep thought and discussion about issues prior to making decisions.

Emotional Intelligence

The ability to understand and manage emotions in oneself and in others.

Escalation of Commitment

The tendency of decision makers to remain committed to poor decision, even when doing so leads to increasingly negative outcomes.

Evidence-based Decision-making

A process of collecting the best available evidence prior to making a decision.

Groupthink

The tendency of a group to reach agreement very quickly and without substantive discussion.

Heuristics

Mental shortcuts that allow a decision maker to reach a good decision quickly. They are strategies that develop based on prior experience.

Nonprogrammed Decisions

Decisions that are novel and not based on well-defined or known criteria.

Process conflict

Conflict about the best way to do something; conflict that is task-oriented and constructive, and not focused on the individuals involved.

Programmed Decision

Decisions that are repeated over time and for which an existing set of rules can be developed.

Reactive System

System of decision-making in the brain that is quick and intuitive.

Reflective System

System of decision-making in the brain that is logical, analytical, and methodical.

Relationship Conflict

Conflict between individuals that is based on personal (or personality) differences; this type of conflict tends to be destructive rather than constructive.

Satisficing

Choosing the first acceptable solution to minimize time spent on a decision.

Stakeholders

Individuals or groups who are impacted by the organization. These include owners, employees, customers, suppliers, and members of the community in which the organization is located.

Suppression of Dissent

When a group member exerts his or her power to prevent others from voicing their thoughts or opinions.

Summary of Learning Outcomes

2.2 Overview of Managerial Decision-Making

1. What are the basic characteristics of managerial decision-making?

Managers are constantly making decisions, and those decisions often have significant impacts and implications for both the organization and its stakeholders. Managerial decision-making is often characterized by complexity, incomplete information, and time constraints, and there is rarely one right answer. Sometimes there are multiple good options (or multiple bad options), and the manager must try to decide which will generate the most positive outcomes (or the fewest negative outcomes). Managers must weigh the possible consequences of each decision and recognize that there are often multiple stakeholders with conflicting needs and preferences so that it often will be impossible to satisfy everyone. Finally, managerial decision-making can sometimes have ethical implications, and these should be contemplated before reaching a final decision.

2.3 How the Brain Processes Information to Make Decisions: Reflective and Reactive Systems

2. What are the two systems of decision-making in the brain?

The brain processes information to make decisions using one of two systems: either the logical, rational (reflective) system or the quick, reactive system. The reflective system is better for significant and important decisions; these generally should not be rushed. However, the reactive system can be lifesaving when time is of the essence, and it can be much more efficient when based on developed experience and expertise.

2.4 Programmed and Nonprogrammed Decisions

3. What is the difference between programmed and nonprogrammed decisions?

Programmed decisions are those that are based on criteria that are well understood, while nonprogrammed decisions are novel and lack clear guidelines for reaching a solution. Managers can establish rules and guidelines for programmed decisions based on

known fact, which enables them to reach decisions quickly. Nonprogrammed decisions require more time to resolve; the decision maker may need to conduct research, collect additional information, gather opinions and ideas from other people, and so on.

2.5 Barriers to Effective Decision-Making

4. What barriers exist that make effective decision-making difficult?

There are numerous barriers to effective decision-making. Managers are limited in their ability to collect comprehensive information, and they are limited in their ability to cognitively process all the information that is available. Managers cannot always know all the possible outcomes of all the possible options, and they often face time constraints that limit their ability to collect all the information that they would like to have. In addition, managers, like all humans, have biases that influence their decision-making, and that can make it difficult for them to make good decisions. One of the most common biases that can confound decision-making is confirmation bias, the tendency for a person to pay attention to information that confirms her existing beliefs and ignore information that conflicts with these existing beliefs. Finally, conflict between individuals in organizations can make it challenging to reach a good decision.

2.6 Improving the Quality of Decision-Making

5. How can a manager improve the quality of her individual decision-making?

Managers tend to get better at decision-making with time and experience, which helps them build expertise. Heuristics and satisficing can also be useful techniques for making programmed decisions quickly. For nonprogrammed decisions, a manager can improve the quality of her decision-making by utilizing a variety of other techniques. Managers should also be careful to not skip steps in the decision-making process, to involve others in the process at various points, and to be creative in generating alternatives. They should also engage in evidence-based decision-making: doing research and collecting data and information on which to base the decision. Effective managers also think critically about the quality of the evidence that they collect, and they carefully consider long-term outcomes and ethical implications prior to making a decision.

2.7 Group Decision-Making

6. What are the advantages and disadvantages of group decision-making, and how can a manager improve the quality of group decision-making?

Groups can make better decisions than individuals because group members can contribute more knowledge and a diversity of perspectives. Groups will tend to generate more options as well, which can lead to better solutions. Also, having people involved in making decisions that will affect them can improve their attitudes about the decision that is made. However, groups sometimes fail to generate added value in the decision-making process as a result of groupthink, conflict, or suppression of dissent.

Managers can improve the quality of group decision-making in a number of ways. First, when forming the group, the manager should ensure that the individual group members are diverse in terms of knowledge and perspectives. The manager may also want to assign a devil's advocate to discourage groupthink. Managers should also encourage all group members to contribute their ideas and opinions, and they should not allow a single voice to dominate. Finally, they should not allow personality conflicts to derail group processes.

? Chapter Review Questions

1. What are some of the factors that enabled Jen Rubio and Stephanie Korey to make good decisions when they established their luggage company, Away?
2. What are the two systems that the brain uses in decision-making? How are they related to programmed and nonprogrammed decisions?
3. What is a heuristic, and when would it be appropriate to use a heuristic for decision-making?
4. What is confirmation bias? Explain how it can be a barrier to effective decision-making.
5. What is a logical fallacy?
6. What are the two types of conflict? Which one is constructive, and which is destructive?
7. What are the steps in the decision-making process? Which ones do people tend to skip or spend insufficient time on?
8. What can individuals do to improve the quality of their decision-making?
9. What can groups or group leaders do to improve the quality of group decision-making?
10. What are the benefits of decision-making in a group, instead of individually?

Management Skills Application Exercises

1. If you wanted to buy a new car, what research would you do first to increase the likelihood of making a good decision? As a manager, do you think you would engage in more research or less research than that prior to making big decisions for the organization?
2. Think about a big decision that you have made. What impact did your emotions have on that decision? Did they help or hinder your decision-making? Would you make the same decision again?
3. If you were faced with an ethical dilemma at work, who would you want to talk to for advice prior to reaching a decision?
4. Which would be better to involve a group with, a programmed or a nonprogrammed decision? Why?
5. If you were manager of a group with a lot of personality conflict, what would you do?

Managerial Decision Exercises

1. Imagine that you are a manager and that two of your employees are blaming one another for a recent project not going well. What factors would you consider in deciding whom to believe? Who else would you talk to before making a decision? What would you do to try to reduce the likelihood of this happening again?
2. You have been asked whether your organization should expand from selling its products only in North America to selling its products in Europe as well. What information would you want to collect? Who would you want to discuss the idea with before making a decision?
3. You have a colleague who decided the organization should pursue a new technology. Nine months into the project of transitioning to the new technology, based on new information you are convinced that the new technology is not going to work out as anticipated. In fact, you expect it to be a colossal failure. However, when you try to talk to your colleague about the issue, she won't listen to your arguments. She is adamant that this new technology is the correct direction for your organization. Why do you think she is so resistant to seeing reason? Given what you learned in this chapter, what could you do to persuade her?
4. Your manager has asked you to take the lead on a new and creative project. She has encouraged you to create your own team (from existing employees) to work with you on the project. What factors would you want to consider in deciding who should join your project team? What would you want to do as the team leader to increase the likelihood that the group will be successful?
5. Identify the logical flaw(s) in this argument:
 - We want to have effective leaders in this organization.
 - Taller individuals tend to be perceived as more leader-like.
 - Men are usually taller than women.
 - So, we should only hire men to be managers in our organization.

Critical Thinking Case

Vinyl Records Make a Comeback

The music industry has seen a series of innovations that have improved audio quality—vinyl records sales were eventually surpassed by compact discs in the 1980s, which were then eclipsed by digital music in the early 2000s. Both of the newer technologies boast superior sound quality to vinyl records. Vinyl should be dead . . . yet it's not. Some say this is simply a result of nostalgia—people love to harken back to older times. However, some audiophiles say that vinyl records produce a “warm” sound that can't be reproduced in any other format. In addition, a vinyl record is a tangible product (you can feel it, touch it, and see it when you own the physical record) and is more attractive, from an aesthetic perspective, than a CD. It is also a format that encourages listening to an entire album at once, rather than just listening to individual tracks, which can change the listening experience.

Whatever the reasons, vinyl is making an impressive comeback. Sales growth has been in the double digits for the last several years (over 50% in 2015 and again in 2016) and is expected to exceed \$5 billion in 2017. Sony, which hasn't produced a vinyl record since 1989, recently announced that it is back in the vinyl business.

One of the biggest challenges to making vinyl records is that most of the presses are 40+ years old. In the record-making process, vinyl bits are heated to 170 degrees, and then a specialized machine exerts 150 tons of pressure to press the vinyl into the shape of the record. About a dozen new vinyl record manufacturers have sprung up in the last decade in the United States. Independent Record Pressing, a company based in New Jersey, began producing vinyl records in 2015 using old, existing presses. Their goal upon starting up was to produce over a million records a year. Even at that level of production, though, demand far outstrips the

company's capacity to produce because of the limited number of presses available. They could run their machines nonstop, 24 hours a day, and not catch up with demand.

The big question is what the future holds for this industry. Will this just be a passing fad? Will the vinyl record industry remain a small niche market? Or is this the renaissance, the rebirth of a product that can withstand the test of time and alternative technologies? If it's a rebirth, then we should see demand continue to grow at its recent rapid pace . . . and if demand remains strong, then investing in new presses may well be worthwhile. If this is just a short-lived nostalgic return to an outdated media, however, then the large capital investment required to purchase new presses will never be recouped. Even with the recent growth, vinyl records still accounted for only 7% of overall music industry sales in 2015. That may be enough to get old presses running again, but so far it hasn't been enough to promote a lot of investment in new machines. The cost of a new press? Almost half a million dollars.

At least one manufacturer is optimistic about the future of vinyl. GZ Media, based in Czechoslovakia, is currently the world's largest producer of vinyl records. President and owner Zdenek Pelc kept his record factory going during the lean years when vinyl sales bottomed out. He admits that the decision was not wholly logical; he continued in part because of an emotional attachment to the media. After demand for vinyl records practically disappeared, Pelc kept just a few of the presses running to meet the demand that remained. His intention was to be the last remaining manufacturer of vinyl records. Pelc's emotional attachment to vinyl records seems to have served him well, and it's a great example of why basing decisions on pure logic doesn't always lead to the best results. Consumers make purchasing decisions in part based on the emotional appeal of the product, so it shouldn't be surprising that consumers also feel an emotional attachment to vinyl records, as Pelc did.

When demand for vinyl records was low, Pelc stored the company's presses that were no longer in use so that they could be cannibalized for parts as needed. When sales began to grow again in 2005, he started pulling old machines out of storage and even invested in a few new ones. This has made GZ Media not only the largest vinyl record producer in the world, but also one of the only ones with new factory equipment. GZ Media produces over 20 million vinyl records a year, and Pelc is excited to continue that trend and to remain a major manufacturer in what is currently still considered a niche market.

Critical Thinking Questions

1. Why do you think vinyl records are appealing to customers?
2. Do you think the sales growth will continue to be strong for vinyl sales? Why or why not?
3. What research would you want to conduct prior to making a decision to invest in new presses?

Sources: Lee Barron, "Back on record – the reasons behind vinyl's unlikely comeback," *The Conversation*, April 17, 2015, <https://theconversation.com/back-on-...comeback-39964>. Hannah Ellis-Peterson, "Record sales: vinyl hits 25-year high," *The Guardian*, January 3, 2017, www.theguardian.com/music/20...tripsstreaming. Allan Kozinn, "Weaned on CDs, They're Reaching for Vinyl," *The New York Times*, June 9, 2013. Rick Lyman, "Czech company, pressing hits for years on vinyl, finds it has become one," *The New York Times*, August 6, 2015. Alec Macfarlane and Chie Kobayashi, "Vinyl comeback: Sony to produce records again after 28-year break," *CNN Money*, June 30, 2017, money.cnn.com/2017/06/30/news...rds/index.html. Kate Rogers, "Why millennials are buying more vinyl records," *CNBC.com*, November 6, 2015. <https://www.cnbc.com/2015/11/06/why-...l-records.html>. Robert Tait, "In the groove: Czech firm tops list of world's vinyl record producers," *The Guardian*, August 18, 2016.

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4.4: Thinking Critically and Creatively

Critical and Creative Thinking



LEARNING OBJECTIVES

By the end of this section, you will be able to:

- Define critical thinking
- Describe the role that logic plays in critical thinking
- Describe how critical thinking skills can be used to evaluate information
- Apply the CRAAP test to evaluate sources of information
- Identify strategies for developing yourself as a critical thinker
- Identify applications in education and one's career where creative thinking is relevant and beneficial
- Explore key elements and stages in the creative process
- Apply specific skills for stimulating creative perspectives and innovative options
- Integrate critical and creative thinking in the process of problem-solving

Critical Thinking

As a college student, you are tasked with engaging and expanding your thinking skills. One of the most important of these skills is critical thinking because it relates to nearly all tasks, situations, topics, careers, environments, challenges, and opportunities. It is a “domain-general” thinking skill, not one that is specific to a particular subject area.

What Is Critical Thinking?

Critical thinking is clear, reasonable, reflective thinking focused on deciding what to believe or do (Robert Ennis.) It means asking probing questions like “How do we know?” or “Is this true in every case or just in this instance?” It involves being skeptical and challenging assumptions rather than simply memorizing facts or blindly accepting what you hear or read.

Imagine, for example, that you’re reading a history textbook. You wonder who wrote it and why, because you detect certain biases in the writing. You find that the author has a limited scope of research focused only on a particular group within a population. In this case, your critical thinking reveals that there are “other sides to the story.”

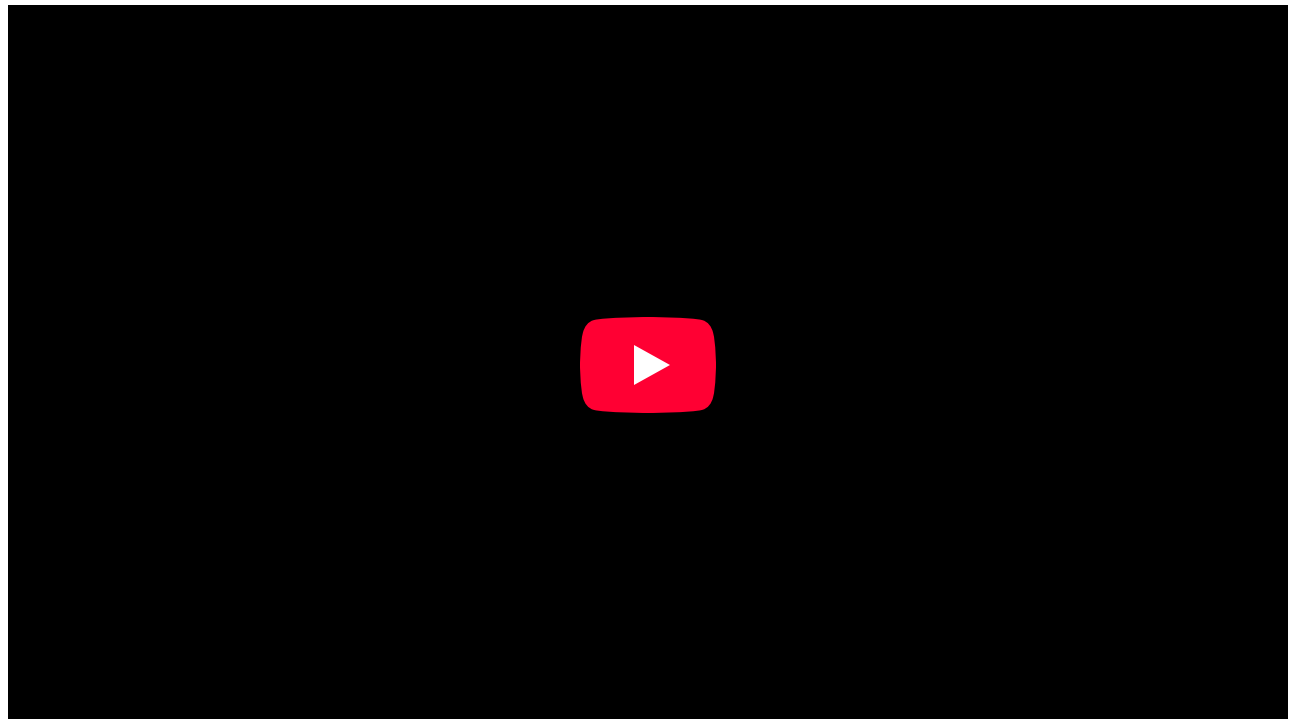
Who are critical thinkers, and what characteristics do they have in common? Critical thinkers are usually curious and reflective people. They like to explore and probe new areas and seek knowledge, clarification, and new solutions. They ask pertinent questions, evaluate statements and arguments, and they distinguish between facts and opinion. They are also willing to examine their own beliefs, possessing a manner of humility that allows them to admit lack of knowledge or understanding when needed. They are open to changing their mind. Perhaps most of all, they actively enjoy learning, and seeking new knowledge is a lifelong pursuit. This may well be you!

No matter where you are on the road to being a critical thinker, you can always more fully develop and finely tune your skills. Doing so will help you develop more balanced arguments, express yourself clearly, read critically, and glean important information efficiently. Critical thinking skills will help you in any profession or any circumstance of life, from science to art to business to teaching. With critical thinking, you become a clearer thinker and problem solver.

What Critical Thinking Is and What it is Not

Critical Thinking IS	Critical Thinking is NOT
Questioning	Passively accepting
Skepticism	Memorizing
Challenging reasoning	Group thinking
Examining assumptions	Blind acceptance of authority
Uncovering biases	Following conventional thinking

The following video, from Lawrence Bland, presents the major concepts and benefits of critical thinking.



Critical Thinking

Critical Thinking and Logic

Critical thinking is fundamentally a process of questioning information and data and then reflecting on and assessing what you discover to arrive at a reasonable conclusion. You may question the information you read in a textbook, or you may question what a politician or a professor or a classmate says.

You can also question a commonly held belief or a new idea. It is equally important (and even more challenging) to question your *own* thinking and beliefs! With critical thinking, anything and everything is subject to question and examination for the purpose of logically constructing reasoned perspectives.

What Is Logic?

The word *logic* comes from the Ancient Greek *logike*, referring to the science or art of reasoning. Using logic, a person evaluates arguments and reasoning and strives to distinguish between good and bad reasoning, or between truth and falsehood. Using logic, you can evaluate the ideas and claims of others, make good decisions, and form sound beliefs about the world.

Questions of Logic in Critical Thinking

Let's use a simple example of applying logic to a critical-thinking situation. In this hypothetical scenario, a man has a Ph.D. in political science, and he works as a professor at a local college. His wife works at the college, too. They have three young children in the local school system, and their family is well known in the community. The man is now running for political office. Are his credentials and experience sufficient for entering public office? Will he be effective in the political office? Some voters might believe that his personal life and current job, on the surface, suggest he will do well in the position, and they will vote for him. In truth, the characteristics described don't guarantee that the man will do a good job. The information is somewhat irrelevant. What else might you want to know? How about whether the man had already held a political office and done a good job? In this case, we want to think critically about how much information is adequate in order to make a decision based on *logic* instead of *assumptions*.

The following questions, presented in Figure 1, below, are ones you may apply to formulate a logical, reasoned perspective in the above scenario or any other situation:

1. *What's happening?* Gather the basic information and begin to think of questions.
2. *Why is it important?* Ask yourself why it's significant and whether or not you agree.
3. *What don't I see?* Is there anything important missing?
4. *How do I know?* Ask yourself where the information came from and how it was constructed.
5. *Who is saying it?* What's the position of the speaker and what is influencing them?
6. *What else? What if?* What other ideas exist and are there other possibilities?

Questions a Critical Thinker Asks



Figure 1

Problem-Solving with Critical Thinking

For most people, a typical day is filled with critical thinking and problem-solving challenges. In fact, critical thinking and problem-solving go hand-in-hand. They both refer to using knowledge, facts, and data to solve problems effectively. But with problem-solving, you are specifically identifying, selecting, and defending your solution. Below are some examples of using critical thinking to problem-solve:

- Your roommate was upset and said some unkind words to you, which put a crimp in the relationship. You try to see through the angry behaviors to determine how you might best support the roommate and help bring the relationship back to a comfortable spot.
- Your campus club has been languishing due to a lack of participation and funds. The new club president, though, is a marketing major and has identified some strategies to interest students in joining and supporting the club. Implementation is forthcoming.
- Your final art class project challenges you to conceptualize form in new ways. On the last day of class when students present their projects, you describe the techniques you used to fulfill the assignment. You explain why and how you selected that approach.
- Your math teacher sees that the class is not quite grasping a concept. They use clever questioning to dispel anxiety and guide you to a new understanding of the concept.
- You have a job interview for a position that you feel you are only partially qualified for, although you really want the job and are excited about the prospects. You analyze how you will explain your skills and experiences in a way to show that you are a good match for the prospective employer.
- You are doing well in college, and most of your college and living expenses are covered. But there are some gaps between what you want and what you feel you can afford. You analyze your income, savings, and budget to better calculate what you will need to stay in college and maintain your desired level of spending.

Evaluating Information with Critical Thinking

Evaluating information can be one of the most complex tasks you will be faced with in college. But if you utilize the following four strategies, you will be well on your way to success:

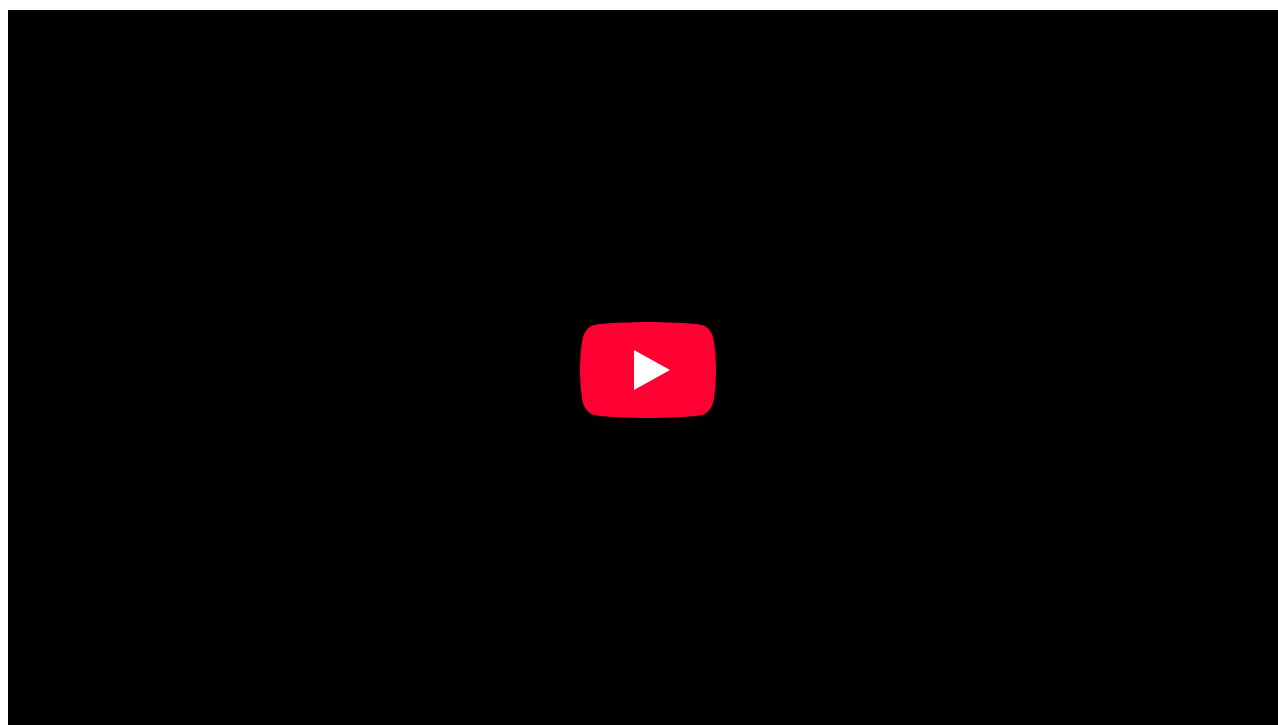
1. Read for understanding
2. Examine arguments
3. Clarify thinking
4. Cultivate “habits of mind”

Read for Understanding

When you read, take notes or mark the text to track your thinking about what you are reading. As you make connections and ask questions in response to what you read, you monitor your comprehension and enhance your long-term understanding of the material. You will want to mark important arguments and key facts. Indicate where you agree and disagree or have further questions. You don’t necessarily need to read every word, but make sure you understand the concepts or the intentions behind what is written. See the chapter on [Active Reading Strategies](#) for additional tips.

Examine Arguments

When you examine arguments or claims that an author, speaker, or other source is making, your goal is to identify and examine the hard facts. You can use the spectrum of authority strategy for this purpose. The spectrum of authority strategy assists you in identifying the “hot” end of an argument—feelings, beliefs, cultural influences, and societal influences—and the “cold” end of an argument—scientific influences. The most compelling arguments balance elements from both ends of the spectrum. The following video explains this strategy in further detail:



Critical Thinking 101: Spectrum of Authority

Clarify Thinking

When you use critical thinking to evaluate information, you need to clarify your thinking to yourself and likely to others. Doing this well is mainly a process of asking and answering probing questions, such as the logic questions discussed earlier. Design your questions to fit your needs, but be sure to cover adequate ground. What is the purpose? What question are we trying to answer? What point of view is being expressed? What assumptions are we or others making? What are the facts and data we know, and how do we know them? What are the concepts we're working with? What are the conclusions, and do they make sense? What are the implications?

Cultivate “Habits of Mind”

“Habits of mind” are the personal commitments, values, and standards you have about the principle of good thinking. Consider your intellectual commitments, values, and standards. Do you approach problems with an open mind, a respect for truth, and an inquiring attitude? Some good habits to have when thinking critically are being receptive to having your opinions changed, having respect for others, being independent and not accepting something is true until you've had the time to examine the available evidence, being fair-minded, having respect for a reason, having an inquiring mind, not making assumptions, and always, especially, questioning your own conclusions—in other words, developing an intellectual work ethic. Try to work these qualities into your daily life.

CRAAP Test

In 2010, a textbook being used in fourth-grade classrooms in Virginia became big news for all the wrong reasons. The book, *Our Virginia* by Joy Masoff, had caught the attention of a parent who was helping her child do her homework, according to [an article in *The Washington Post*](#). Carol Sheriff was a historian for the College of William and Mary and as she worked with her daughter, she began to notice some glaring historical errors, not the least of which was a passage that described how thousands of African Americans fought for the South during the Civil War.

Further investigation into the book revealed that, although the author had written textbooks on a variety of subjects, she was not a trained historian. The research she had done to write *Our Virginia*, and in particular the information she included about Black Confederate soldiers, was done through the Internet and included sources created by groups like the Sons of Confederate Veterans, an organization which promotes views of history that de-emphasize the role of slavery in the Civil War.

How did a book with errors like these come to be used as part of the curriculum and who was at fault? Was it Masoff for using untrustworthy sources for her research? Was it the editors who allowed the book to be published with these errors intact? Was it the school board for approving the book without more closely reviewing its accuracy?

There are a number of issues at play in the case of *Our Virginia*, but there's no question that evaluating sources is an important part of the research process and doesn't just apply to Internet sources. Using inaccurate, irrelevant, or poorly researched sources can affect the quality of your own work. Being able to understand and apply the concepts that follow is crucial to becoming a more savvy user and creator of information.

When you begin evaluating sources, what should you consider? The **CRAAP test** is a series of common evaluative elements you can use to evaluate the **C**urrency, **R**elevance, **A**uthority, **A**ccuracy, and **P**urpose of your sources. The CRAAP test was developed by librarians at California State University at Chico and it gives you a good, overall set of elements to look for when evaluating a resource. Let's consider what each of these evaluative elements means.

Currency

One of the most important and interesting steps to take as you begin researching a subject is selecting the resources that will help you build your thesis and support your assertions. Certain topics require you to pay special attention to how current your resource is—because they are time sensitive, because they have evolved so much over the years, or because new research comes out on the topic so frequently. When evaluating the currency of an article, consider the following:

- When was the item written, and how frequently does the publication come out?
- Is there evidence of newly added or updated information in the item?
- If the information is dated, is it still suitable for your topic?
- How frequently does information change about your topic?

Relevance

Understanding what resources are most applicable to your subject and why they are applicable can help you focus and refine your thesis. Many topics are broad and searching for information on them produces a wide range of resources. Narrowing your topic and focusing on resources specific to your needs can help reduce the piles of information and help you focus in on what is truly important to read and reference. When determining relevance consider the following:

- Does the item contain information relevant to your argument or thesis?
- Read the article's introduction, thesis, and conclusion.
- Scan main headings and identify article keywords.
- For book resources, start with the index or table of contents—how wide a scope does the item have? Will you use part or all of this resource?
- Does the information presented support or refute your ideas?
- If the information refutes your ideas, how will this change your argument?
- Does the material provide you with current information?
- What is the material's intended audience?

Authority

Understanding more about your information's source helps you determine when, how, and where to use that information. Is your author an expert on the subject? Do they have some personal stake in the argument they are making? What is the author or information producer's background? When determining the authority of your source, consider the following:

- What are the author's credentials?
- What is the author's level of education, experience, and/or occupation?
- What qualifies the author to write about this topic?
- What affiliations does the author have? Could these affiliations affect their position?
- What organization or body published the information? Is it authoritative? Does it have an explicit position or bias?

Accuracy

Determining where information comes from, if the evidence supports the information, and if the information has been reviewed or refereed can help you decide how and whether to use a source. When determining the accuracy of a source, consider the following:

- Is the source well-documented? Does it include footnotes, citations, or a bibliography?
- Is information in the source presented as fact, opinion, or propaganda? Are biases clear?
- Can you verify information from the references cited in the source?
- Is the information written clearly and free of typographical and grammatical mistakes? Does the source look to be edited before publication? A clean, well-presented paper does not always indicate accuracy, but usually at least means more eyes have been on the information.

Purpose

Knowing why the information was created is a key to evaluation. Understanding the reason or purpose of the information, if the information has clear intentions, or if the information is fact, opinion, or propaganda will help you decide how and why to use information:

- Is the author's purpose to inform, sell, persuade, or entertain?
- Does the source have an obvious bias or prejudice?
- Is the article presented from multiple points of view?
- Does the author omit important facts or data that might disprove their argument?
- Is the author's language informal, joking, emotional, or impassioned?
- Is the information clearly supported by evidence?

When you feel overwhelmed by the information you are finding, the CRAAP test can help you determine which information is the most useful to your research topic. How you respond to what you find out using the CRAAP test will depend on your topic. Maybe you want to use two overtly biased resources to inform an overview of typical arguments in a particular field. Perhaps your topic is historical and currency means the past hundred years rather than the past one or two years. Use the CRAAP test, be knowledgeable about your topic, and you will be on your way to evaluating information efficiently and well!

Next, visit the [ACC Library's Website](#) for a tutorial and quiz on using the CRAAP test to evaluate sources.

Developing Yourself As a Critical Thinker



Critical thinking is a fundamental skill for college students, but it should also be a lifelong pursuit. Below are additional strategies to develop yourself as a critical thinker in college and in everyday life:

- **Reflect and practice:** Always reflect on what you've learned. Is it true all the time? How did you arrive at your conclusions?
- **Use wasted time:** It's certainly important to make time for relaxing, but if you find you are indulging in too much of a good thing, think about using your time more constructively. Determine when you do your best thinking and try to learn something new during that part of the day.
- **Redefine the way you see things:** It can be very uninteresting to always think the same way. Challenge yourself to see familiar things in new ways. Put yourself in someone else's shoes and consider things from a different angle or perspective. If you're trying to solve a problem, list all your concerns: what you need in order to solve it, who can help, what some possible barriers might be, etc. It's often possible to reframe a problem as an opportunity. Try to find a solution where there seems to be none.
- **Analyze the influences on your thinking and in your life:** Why do you think or feel the way you do? Analyze your influences. Think about who in your life influences you. Do you feel or react a certain way because of social convention, or because you believe it is what is expected of you? Try to break out of any molds that may be constricting you.
- **Express yourself:** Critical thinking also involves being able to express yourself clearly. Most important in expressing yourself clearly is stating one point at a time. You might be inclined to argue every thought, but you might have greater impact if you focus just on your main arguments. This will help others to follow your thinking clearly. For more abstract ideas, assume that your audience may not understand. Provide examples, analogies, or metaphors where you can.
- **Enhance your wellness:** It's easier to think critically when you take care of your mental and physical health. Try taking activity breaks throughout the day to reach 30 to 60 minutes of physical activity each day. Scheduling physical activity into your day can help lower stress and increase mental alertness. Also, **do your most difficult work when you have the most energy.** Think about the time of day you are most effective and have the most energy. Plan to do your most difficult work during these times. And be sure to **reach out for help** if you feel you need assistance with your mental or physical health (see [Maintaining Your Mental and Physical Health](#) for more information).

OPTIONAL: ACTIVITY 1 - REFLECT ON CRITICAL THINKING

Objective

- Apply critical thinking strategies to your life

Directions

- Think about someone you consider to be a critical thinker (friend, professor, historical figure, etc). What qualities does he/she have?
- Review some of the critical thinking strategies discussed on this page. Pick one strategy that makes sense to you. How can you apply this critical thinking technique to your academic work?
- Habits of mind are attitudes and beliefs that influence how you approach the world (i.e., inquiring attitude, open mind, respect for truth, etc). What is one habit of mind you would like to actively develop over the next year? How will you develop a daily practice to cultivate this habit?
- Write your responses in journal form, and submit according to your instructor's guidelines.

Creative Thinking

Creative thinking is an invaluable skill for college students because it helps you look at problems and situations from a fresh perspective. Creative thinking is a way to develop novel or unorthodox solutions that do not depend wholly on past or current solutions. It's a way of employing strategies to clear your mind so that your thoughts and ideas can transcend what appears to be the limitations of a problem. Creative thinking is a way of moving beyond barriers and it can be understood as a *skill*—as opposed to an inborn talent or natural “gift”—that can be taught as well as learned.

However, the ability to think and act in creative ways is a natural ability that we all exhibited as children. The curiosity, wonder, imagination, playfulness, and persistence in obtaining new skills are what transformed us into the powerful learners that we became well before we entered school. As a creative thinker now, you are curious, optimistic, and imaginative. You see problems as interesting opportunities, and you challenge assumptions and suspend judgment. You don't give up easily. You work hard. Is this you? Even if you don't yet see yourself as a competent creative thinker or problem-solver yet, you can learn solid skills and techniques to help you become one.

Creative Thinking in Education

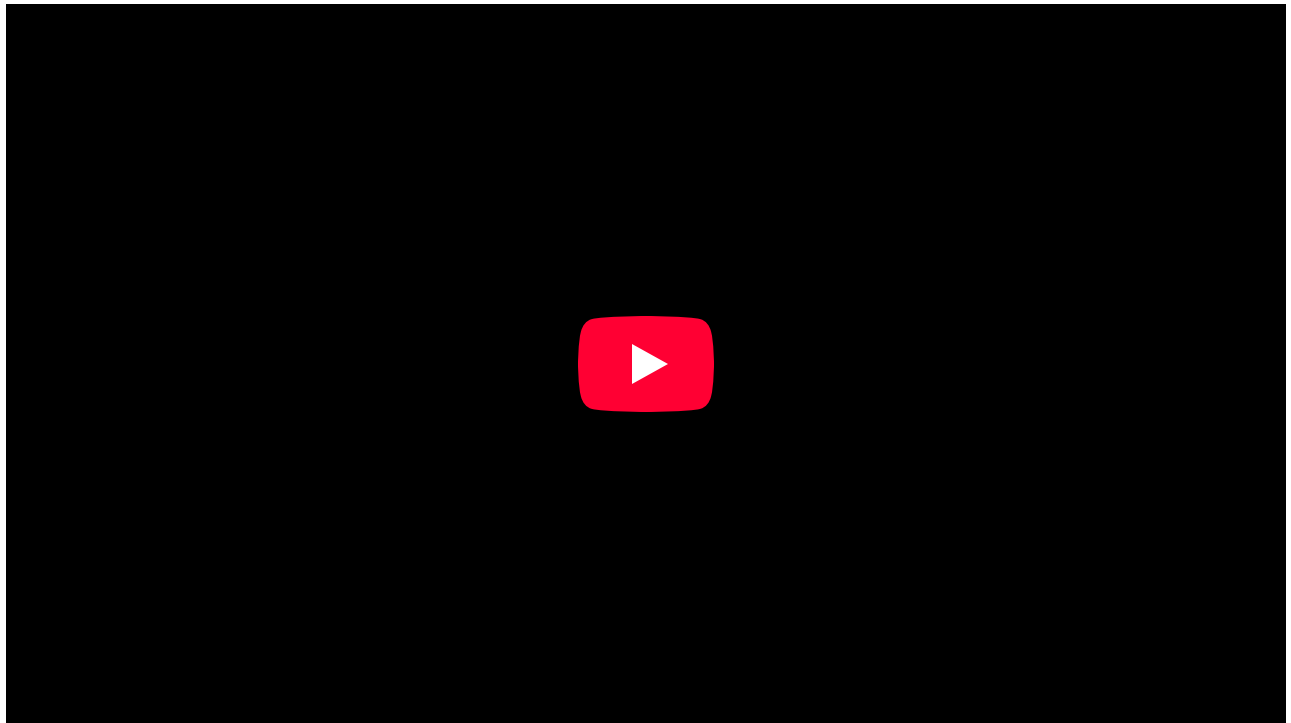
College is a great ground for enhancing creative thinking skills. The following are some examples of college activities that can stimulate creative thinking. Are any familiar to you? What are some aspects of your own college experience that require you to think creatively?

- Design sample exam questions to test your knowledge as you study for a final.
- Devise a social media strategy for a club on campus.
- Propose an education plan for a major you are designing for yourself.
- Prepare a speech that you will give in a debate in your course.
- Arrange audience seats in your classroom to maximize attention during your presentation.
- Participate in a brainstorming session with your classmates on how you will collaborate on a group project.
- Draft a script for a video production that will be shown to several college administrators.
- Compose a set of requests and recommendations for a campus office to improve its services for students.
- Develop a marketing pitch for a mock business you are developing.
- Develop a plan to reduce energy consumption in your home, apartment, or dorm.

How to Stimulate Creative Thinking

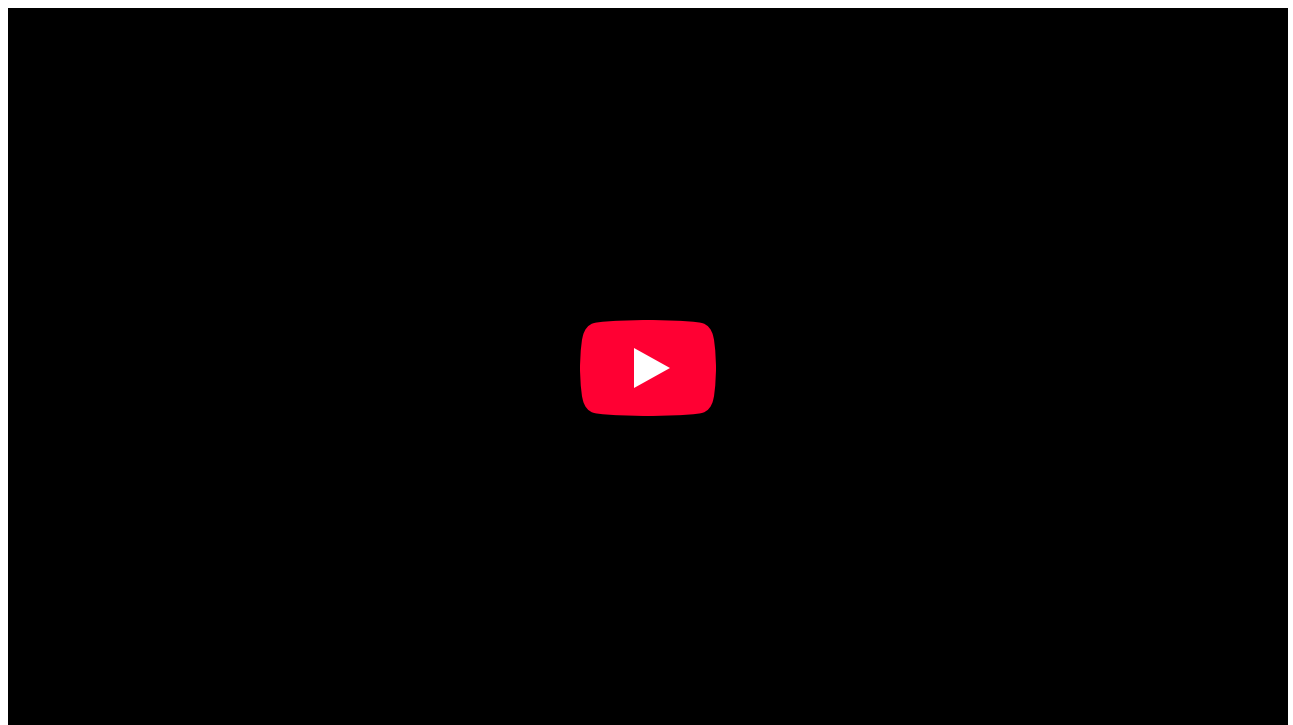
The following video, *How to Stimulate the Creative Process*, identifies six strategies to stimulate your creative thinking.

1. **Sleep on it.** Over the years, researchers have found that the REM sleep cycle boosts our creativity and problem-solving abilities, providing us with innovative ideas or answers to vexing dilemmas when we awaken. Keep a pen and paper by the bed so you can write down your nocturnal insights if they wake you up.
2. **Go for a run or hit the gym.** Studies indicate that exercise stimulates creative thinking, and the brainpower boost lasts for a few hours.
3. **Allow your mind to wander** a few times every day. Far from being a waste of time, daydreaming has been found to be an essential part of generating new ideas. If you're stuck on a problem or creatively blocked, think about something else for a while.
4. **Keep learning.** Studying something far removed from your area of expertise is especially effective in helping you think in new ways.
5. **Put yourself in nerve-racking situations** once in a while to fire up your brain. Fear and frustration can trigger innovative thinking.
6. **Keep a notebook** with you, or create a file for ideas on your smartphone or laptop, so you always have a place to record fleeting thoughts. They're sometimes the best ideas of all.



How to Stimulate Creative Thinking

The following video, *Where Good Ideas Come From* by Steven Johnson, reinforces the idea that time allows creativity to flourish.



Where Good Ideas Come From

Watch this supplemental video by PBS Digital Studies: [How To Be Creative | Off Book | PBS Digital Studio](#) for a more in-depth look on how to become a “powerful creative person.”

Below is an article by Professor Tobin Quereau, called *In Search of Creativity*. Perhaps the article can help you think about some simple principles that can enhance your own creative thinking.

[In Search of Creativity](#)

Tobin Quereau

As I was searching through my files the other day for materials on creativity, I ran across some crumpled, yellowed notes which had no clear identification as to their source. Though I cannot remember exactly where they came from, I pass them along to you as an example of the absurd lengths to which some authors will go to get people’s attention.

The notes contained five principles or practices with accompanying commentary which supposedly enhance creativity. I reprint them here as I found them and leave you to make

your own judgment on the matter...

1. Do It Poorly! *One has to start somewhere and hardly anyone I know starts perfectly at anything. As a result, hardly anyone seems to start very much at all. Often times the quest for excellence quashes any attempt at writing, thinking, doing, saying, etc., since we all start rather poorly in the beginning. Therefore, I advocate more mediocrity as a means to success. Whatever you want, need, or have to do, start doing it! (Apologies to Nike, but this was written long before they stole the concept....) Do it poorly at first with pleasure, take a look or listen to what you've done, and then do it again. If you can turn out four good, honest, poor quality examples, the fifth time you should have enough information and experience to turn out something others will admire. And if you do the first four tries in private, only you need to know how you got there.*

2. Waste Time! *Don't spend it all doing things. Give yourself time and permission to daydream, mull over, muse about your task or goal without leaping into unending action. "But what," you say, "if I find myself musing more about the grocery shopping than the gross receipts?" Fine, just see what relationships you can come up with between groceries and gross receipts. (How about increasing the volume and lowering mark-ups? Or providing comfortable seating in the local superstore so that people can relax while shopping and thus have more energy with which to spend their money??) Whatever you do, just pay attention to what comes and get it down in writing somewhere somehow before it goes again. No need to waste ideas....*

3. Be Messy! *(Not hard for some of us.) Don't go for clarity before confusion has had time to teach you something new. In fact, I advocate starting with a large sheet of blank paper—anything up to 2 feet by 4 feet in size—and then filling it up as quickly and randomly as possible with everything that is, might be, or ought to be related to the task at hand. Then start drawing arrows, underlining, scratching through, highlighting, etc., to make a real mess that no one but you can decipher. (If you can't figure it out either, that's O.K., too—it doesn't have to make sense in the beginning.) Then go back to Principle #1 and start doing something.*

4. Make Mistakes! *Search out your stumbling blocks. Celebrate your errors. Rejoice in your "wrongs" for in them lie riches. Consider your faux pas as feedback not failure and you'll learn (and possibly even earn!) a lot more. Be like a research scientist and get something publishable out of whatever the data indicates. As one creative consultant, Sidney X. Shore, suggests, always ask, "What's Good About It?" Some of our most precious inventions have resulted from clumsy hands and creative insight.*

5. Forget Everything You Have Learned! *(Except, perhaps, these principles!) Give yourself a chance to be a neophyte, return to innocence, start with "beginner's mind". In the Zen tradition of Japan, there is a saying in support of this approach because in the beginner's mind all things are possible, in the expert's mind only one or two. What would a five-year-old do with your task, goal, project, or problem? Take a risk and be naive again. Many major advances in math and science have come from young, wet-behind-the-*

ears upstarts who don't know enough to get stuck like everyone else. Even Picasso worked hard at forgetting how to draw...

But I must stop! There was more to this unusual manuscript, but it would be a poor idea to prolong this further. As a responsible author, I don't want to waste any more of your time on such ramblings. You know as well as I that such ideas would quickly make a mess of things. I am sure that the original author, whoever that was, has by now repudiated these mistaken notions which could be quite dangerous in the hands of untrained beginners. I even recall a reference to these principles being advocated for groups and teams as well as for individual practice—if you can imagine such a thing! It is a pity that the author or authors did not have more to offer, however, “In Search of Creativity” could have made a catchy title for a book...

Problem Solving with Creative Thinking

Creative problem-solving is a type of problem-solving that involves searching for new and novel solutions to problems. It's a way to think “outside of the box.” Unlike critical thinking, which scrutinizes assumptions and uses reasoning, creative thinking is about generating alternative ideas—practices and solutions that are unique and effective. It's about facing sometimes muddy and unclear problems and seeing how things can be done differently.

ACTIVITY 2 - ASSESS YOUR CREATIVE PROBLEM-SOLVING SKILLS (OPTIONAL)

Directions:

- Access *Psychology Today's* [Creative Problem-Solving Test](#) at the *Psychology Today* Web site.
- Read the introductory text, which explains how creativity is linked to fundamental qualities of thinking, such as flexibility and tolerance of ambiguity.
- Then advance to the questions by clicking on the “Take The Test” button. The test has 20 questions and will take roughly 10 minutes.
- After finishing the test, you will receive a Snapshot Report with an introduction, a graph, and a personalized interpretation for one of your test scores.

Complete any further steps by following your instructor's directions.

As you continue to develop your creative thinking skills, be alert to perceptions about creative thinking that could slow down progress. Remember that creative thinking and problem-solving are ways to transcend the limitations of a problem and see past barriers.

Fiction vs. Facts in Critical Thinking

	FICTION	FACTS
1	Every problem has only one solution (or one right answer)	The goal of problem-solving is to solve the problem, and most problems can be solved in any number of ways. If you discover a solution that works, it's a good solution. Other people may think up solutions that differ from yours, but that doesn't make your solution wrong or unimportant. What is the solution to “putting words on paper?” Fountain pen, ballpoint, pencil, marker, typewriter, printer, printing press, word-processing... all are valid solutions!
2	The best answer, solution, or method has already been discovered	Look at the history of any solution and you'll see that improvements, new solutions, and new right answers are always being found. What is the solution to human transportation? The ox or horse, the cart, the wagon, the train, the car, the airplane, the jet, the space shuttle? What is the best and last?

	FICTION	FACTS
3	Creative answers are technologically complex	Only a few problems require complex technological solutions. Most problems you'll encounter need only a thoughtful solution involving personal action and perhaps a few simple tools. Even many problems that seem to require technology can be addressed in other ways.
4	Ideas either come or they don't. Nothing will help — certainly not structure.	There are many successful techniques for generating ideas. One important technique is to include structure. Create guidelines, limiting parameters, and concrete goals for yourself that stimulate and shape your creativity. This strategy can help you get past the intimidation of "the blank page." For example, if you want to write a story about a person who gained insight through experience, you can stoke your creativity by limiting or narrowing your theme to "a young girl in Cambodia who escaped the Khmer Rouge to find a new life as a nurse in France." Apply this specificity and structure to any creative endeavor.

Critical and creative thinking complement each other when it comes to problem-solving. The process of alternatively focusing and expanding your thinking can generate more creative, innovative, and effective outcomes. The following words, by Dr. Andrew Robert Baker, are excerpted from his "Thinking Critically and Creatively" essay. Dr. Baker illuminates some of the many ways that college students will be exposed to critical and creative thinking and how it can enrich their learning experiences.

THINKING CRITICALLY AND CREATIVELY

Critical thinking skills are perhaps the most fundamental skills involved in making judgments and solving problems. You use them every day, and you can continue improving them.

The ability to think critically about a matter—to analyze a question, situation, or problem down to its most basic parts—is what helps us evaluate the accuracy and truthfulness of statements, claims, and information we read and hear. It is the sharp knife that, when honed, separates fact from fiction, honesty from lies, and the accurate from the misleading. We all use this skill to one degree or another almost every day. For example, we use critical thinking every day as we consider the latest consumer products and why one particular product is the best among its peers. Is it a quality product because a celebrity endorses it? Because a lot of other people may have used it? Because it is made by one company versus another? Or perhaps because it is made in one country or another? These are questions representative of critical thinking.

The academic setting demands more of us in terms of critical thinking than everyday life. It demands that we evaluate information and analyze myriad issues. It is the environment where our critical thinking skills can be the difference between success and failure. In this environment we must consider information in an analytical, critical manner. We must ask questions—What is the source of this information? Is this source an expert one and what makes it so? Are there multiple perspectives to consider on an issue? Do multiple sources agree or disagree on an issue? Does quality research substantiate information or opinion? Do I have any personal biases that may affect my consideration of this information?

It is only through purposeful, frequent, intentional questioning such as this that we can sharpen our critical thinking skills and improve as students, learners and researchers.

While critical thinking analyzes information and roots out the true nature and facets of problems, it is creative thinking that drives progress forward when it comes to solving these problems. Exceptional creative thinkers are people that invent new solutions to existing problems that do not rely on past or current solutions. They are the ones who invent solution C when everyone else is still arguing between A and B. Creative thinking skills involve using strategies to clear the mind so that our thoughts and ideas can transcend the current limitations of a problem and allow us to see beyond barriers that prevent new solutions from being found.

Brainstorming is the simplest example of intentional creative thinking that most people have tried at least once. With the quick generation of many ideas at once, we can block-out our brain's natural tendency to limit our solution-generating abilities so we can access and combine many possible solutions/thoughts and invent new ones. It is sort of like sprinting through a race's finish line only to find there is new track on the other side and we can keep going, if we choose. As with critical thinking, higher education both demands creative thinking from us and is the perfect place to practice and develop the skill. Everything from word problems in a math class, to opinion or persuasive speeches and papers, call upon our creative thinking skills to generate new solutions and perspectives in response to our professor's demands. Creative thinking skills ask questions such as—What if? Why not? What else is out there? Can I combine perspectives/solutions? What is something no one else has brought-up? What is being forgotten/ignored? What about _____? It is the opening of doors and options that follows problem-identification.

Consider an assignment that required you to compare two different authors on the topic of education and select and defend one as better. Now add to this scenario that your professor clearly prefers one author over the other. While critical thinking can get you as far as identifying the similarities and differences between these authors and evaluating their merits, it is creative thinking that you must use if you wish to challenge your professor's opinion and invent new perspectives on the authors that have not previously been considered.

So, what can we do to develop our critical and creative thinking skills? Although many students may dislike it, group work is an excellent way to develop our thinking skills. Many times I have heard from students their disdain for working in groups based on scheduling, varied levels of commitment to the group or project, and personality conflicts too, of course. True—it's not always easy, but that is why it is so effective. When we work collaboratively on a project or problem we bring many brains to bear on a subject. These different brains will naturally develop varied ways of solving or explaining problems and examining information. To the observant individual we see that this places us in a constant state of back and forth critical/creative thinking modes.

For example, in group work we are simultaneously analyzing information and generating solutions on our own, while challenging other's analyses/ideas and responding to challenges to our own analyses/ideas. This is part of why students tend to avoid group

work—it challenges us as thinkers and forces us to analyze others while defending ourselves, which is not something we are used to or comfortable with as most of our educational experiences involve solo work. Your professors know this—that’s why we assign it—to help you grow as students, learners, and thinkers!

—Dr. Andrew Robert Baker, *Foundations of Academic Success: Words of Wisdom*

Problem-Solving Action Checklist

Problem-solving can be an efficient and rewarding process, especially if you are organized and mindful of critical steps and strategies. Remember to assume the attributes of a good critical thinker: if you are curious, reflective, knowledge-seeking, open to change, probing, organized, and ethical, your challenge or problem will be less of a hurdle, and you’ll be in a good position to find intelligent solutions. The steps outlined in this checklist will help you adhere to these qualities in your approach to any problem:

Strategies and Action Checklist

STRATEGIES		ACTION CHECKLIST
1	Define the problem	<ul style="list-style-type: none"> Identify the problem Provide as many supporting details as possible Provide examples Organize the information logically
2	Identify available solutions	<ul style="list-style-type: none"> Use logic to identify your most important goals Identify implications and consequences Identify facts Compare and contrast possible solutions
3	Select your solution	<ul style="list-style-type: none"> Use gathered facts and relevant evidence Support and defend solutions considered valid Defend your solution

KEY TAKEAWAYS

- Critical thinking is logical and reflective thinking focused on deciding what to believe or do.
- Critical thinking involves questioning and evaluating information.
- Evaluating information is a complex, but essential, process. You can use the CRAAP test to help determine if sources and information are reliable.
- Creative thinking is both a natural aspect of childhood and a re-learnable skill as an adult.
- Creative thinking is as essential a skill as critical thinking and integrating them can contribute to innovative and rewarding experiences in life.
- Critical and creative thinking both contribute to our ability to solve problems in a variety of contexts.
- You can take specific actions to develop and strengthen your critical and creative thinking skills.

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4.5: Common Decision-Making Tools

Learning Objectives

- Discuss decision making tools

One thing almost everyone has in common is that we all want to make good decisions. That's been the motivation of many a decision making tool. Over time, people have created and refined tools for every type of decision.

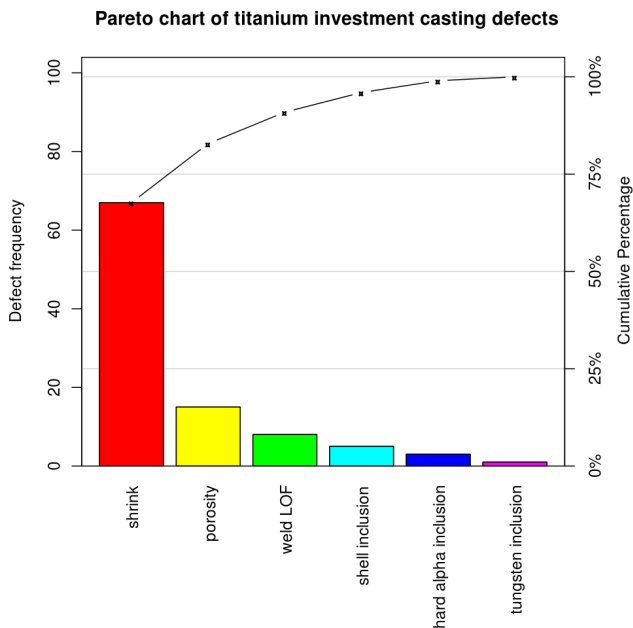
Almost all charts, diagrams and reports lend themselves to decision making in one way or another. But here in this section, we're going to take a look at some of the tools that are most specifically devoted to the decision making process.

Pareto Diagram

What it does for you: It identifies beneficial opportunities and issues.

A Pareto chart contains both bars and a line graph, where individual values are represented in descending order by bars, and the cumulative total is represented by the line. The chart below outlines titanium investment casting defects. The chart is meant to highlight the most important among a list of factors. The bar chart is the frequency of occurrence, and the line graph shows the cumulative percentage of time these issues occur. Looking at this bar chart, if we wanted to decrease titanium investment casting defects by 80%, we'd need to tackle the first two issues on the chart. The Pareto chart helps you define and tackle the issues that have the most impact on your problem.

The Pareto chart below depicts titanium investment casting defects. Various defects are shown across the x-axis of the chart. The y-axes show the defect frequency and cumulative percentages. Shrink has approximately a 67 defect frequency. Porosity has approximately a 15 defect frequency. Weld LOF has approximately a 8 defect frequency. Shell inclusion has approximately an 5 defect frequency. Hard alpha inclusion has approximately a 3 defect frequency. Tungsten inclusion has approximately a 1 defect frequency. There is a line showing the cumulative percentages of defect frequency. Shrink and porosity account for 82 of defects. Shrink, porosity, and Weld LOF account for 90 of defects. Shrink, porosity, Weld LOF, and Shell inclusion account for 95 of defects. Shrink, porosity, Weld LOF, Shell inclusion, and Hard alpha inclusion account for 98 of defects. Shrink, porosity, Weld LOF, Shell inclusion, Hard alpha inclusion, and Tungsten inclusion account for 99 of defects.

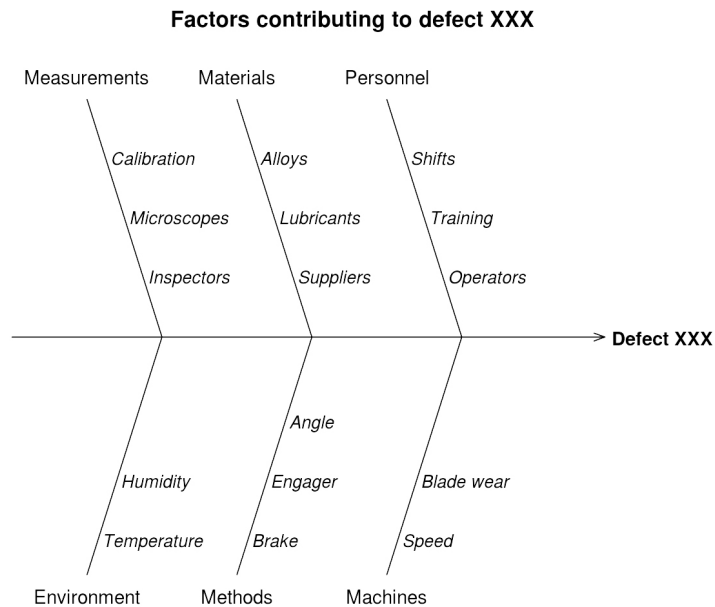


Cause and Effect or Ishikawa Diagram

What It Does For You: Helps you hone in on the exact cause of an issue.

As you can see from the cause and effect diagram below (or fishbone diagram, because it looks very much like the bones of a fish), the user needs to list all the possible causes of a particular issue, by category. Each category is a “bone” of the fish. The issue is listed in the fish’s head. In this instance, the group is looking at why so much staff is required for a particular process. The answers are divided into categories, like “policies” and “procedures” below.

The Ishikawa Diagram below shows the factors that contribute to defect XXX. There is a horizontal arrow in the middle of the diagram pointing toward Defect XXX. There are three diagonal lines on either side of the arrow indicating factors. The first line includes the measurement factors, and has three subfactors: calibration, microscopes, and inspectors. The second line includes the materials factors, and has three subfactors: alloys, lubricants, and suppliers. The third line includes the personnel factors, and has three subfactors: shifts, training, and operators. The fourth line includes the environmental factors, and has two subfactors: humidity and temperature. The fifth line includes the methods factors, and has three subfactors: angle, engager, and brake. The sixth line includes the machine factors, and has two subfactors: blade wear and speed.



This is commonly used with product design and quality issues, and, as a very visual brainstorming tool, can spark many more ideas for cause/effect issues. On the other hand, bigger issues can start to look cluttered, and interrelationships between causes are hard to identify using this method.

Feasibility Reporting

What it does for you: It lets you know the rate of return on the investment of your project.

Now we’re doing math! (It was inevitable). Feasibility reporting, packed with things like cost-benefit analysis and payback calculations, allows an organization to see all the details of a particular project: when it will start paying back, what the rate of return is on the investment, and so on.

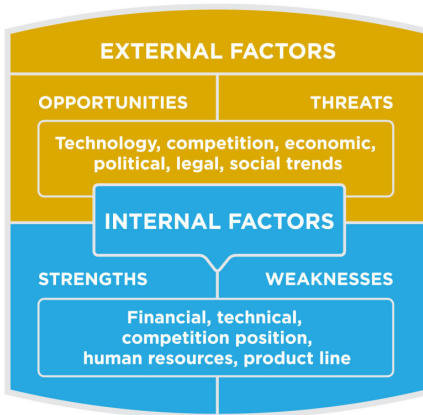
Benefit cost ratio and payback are just a portion of a feasibility report, but this short video shows you the kind of information you’re likely to see and thus, the kinds of decisions it can help you make.

A link to an interactive elements can be found at the bottom of this page.

SWOT Analysis

As seen in the diagram below, a SWOT Analysis is made of external and internal factors. External factors are opportunities and threats. They include technology, competition, economic, political, legal, social trends. Internal factors are strengths and weaknesses. They include financial, technical, competition position, human resources, product line.

SWOT ANALYSIS



What it does for you: Helps with strategic planning and decision making.

SWOT stands for strengths, weaknesses, opportunities and threats. SWOT analysis helps you identify the internal strengths and weaknesses of your organization that give you an advantage over others of your kind, and reminds you to look for external opportunities and threats at the same time. It helps an organization identify its objectives and determine which environmental and non-environmental factors are favorable to that success.

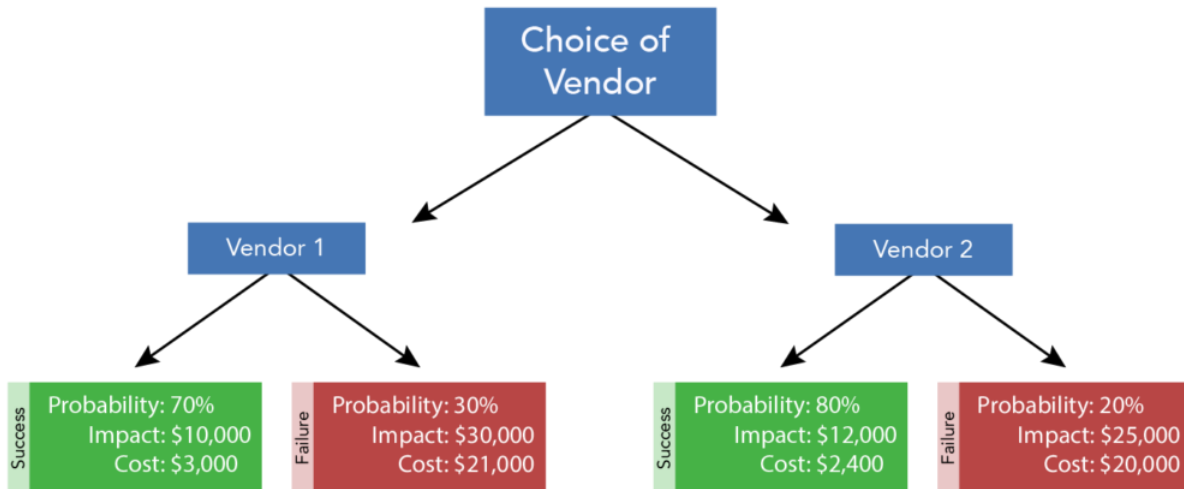
This sample SWOT analysis shows the considerations of a particular organization as they went through their strategic planning process.

A SWOT analysis can be used any time a business or individual wants to determine if a particular objective is achievable. Limitations of the SWOT analysis have also been noted, chief among them that the list weighs heavily on perception rather than actual assessment of strengths and weaknesses.

Decision Making Diagrams

The decision making diagram below shows a choice of vendors. The diagram shows branching choices, stemming from choice of vendor. The choice is between Vendor 1 and Vendor 2. Vendor 1 shows that there is a 70% probability of success. The impact of success will be \$10,000. The cost of success will be \$3,000. There is a 30% chance of failure with Vendor 1. The impact of failure will be \$30,000. The cost of failure will be \$21,000. Vendor 2 shows that there is a 80% probability of success. The impact of success will be \$12,000. The cost of success will be \$2,400. There is an 20% chance of failure with Vendor 2. The impact of failure will be \$25,000. The cost of failure will be \$20,000.

What they do for you: They help you see all the alternatives and the associated costs.



The decision making diagram allows you to map out all the possible alternatives to each decision, their costs and even chances of success or failure. In the diagram above, an individual is trying to decide between Vendor 1 and Vendor 2. As you can see in the diagram, Vendor 2's probability of failure is only 20%, at a cost of \$2,400, but would have an impact of \$12,000 total, compared with Vendor 1's \$10,000 total impact in the case of failure. Looks like Vendor 1 is a bigger risk with a bigger payoff. Which would you choose?

Decision Making Software

What it does for you: Allows for collaborative decision making and parsing large amounts of data.

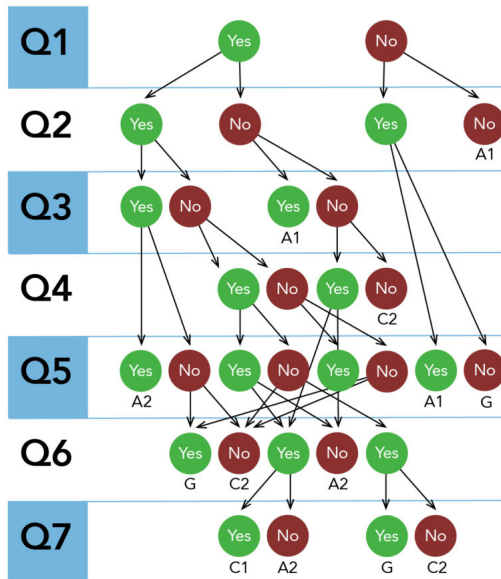
There are a variety of decision making software solutions on the market today to help in any situation you might find yourself in. These software solutions allow for collaborative decision making, analysis and reporting of substantial amounts of data.

Vroom-Yetton-Jago Decision Making Model^[1]

The Diagram of the Vroom-Yetton-Jago Model depicts the five different ways to make decisions based on these questions: A1, A2, C1, C2, and G. You will make an A1 decision if the answer to questions 1 and 2 is no. You will make an A1 decision if the answers to Questions 1 and 3 is yes, but the answer to question 2 is no. You will make an A1 decision if the answer to questions 1 is no, question 2 is yes, and question 5 is yes. You will make an A2 decision if the answer to questions 1, 2, 3, and 5 is yes. You will make an A2 decision if you answer question 1 yes, question 2 no, question 3 no, question 4 yes, question 5 yes, and question 6 no. You will make an A2 decision if you answer question 1 yes, question 2 no, question 3 no, question 4 yes, question 6 yes, and question 7 no. You will make a C1 decision if you answer question 1 yes, question 2 no, question 3 no, question 4 yes, question 6 yes, and question 7 yes. You will make a C2 decision if you answer question 1 yes, question 2 no, question 3 no, and question 4 no. You will make a C2 decision if you answer question 1 yes, question 2 yes, question 3 no, question 4 yes, question 5 no, question 6 yes, and question 7 no. You will make a C2 decision if the answer to questions 1, 2, and 3 yes, the answer to question 5 is no, and the answer to question 6 is no. You will make a G decision if the answer to questions 1, 2, and 3 yes, the answer to question 5 is no, and the answer to question 6 is yes. You will make a G decision if you answer question 1 yes, question 2 yes, question 3 no, question 4 yes, question 5 no, question 6 yes, and question 7 yes. You will make a G decision if the answer to question 1 is no, question 2 is yes, and question 5 is no.

What it does for you: Helps you figure out the best method to make a decision and who to involve.

Vroom-Yetton-Jago Model



Vroom, Yetton, and Jago created a decision model to help you decide how you were going to make a decision. Should you make a decision individually or assemble the group and make a decision together? These are the questions you should ask yourself, according to Victor Vroom and his compatriots:

1. Is the quality of the decision important?
2. Is team commitment important for the decision?
3. Do you have enough information to make the decision on your own?
4. Is the problem well-structured?
5. Would the team support you if you made the decision alone?
6. Does the team share the organizational goals?
7. Is conflict among the team over the decision likely?

Note the significance of the annotations on the chart:

- **Autocratic (A1):** The leader makes the decision by himself using existing information without any communication with the team.
- **Autocratic (A2):** The leader consults with team members to get information, but makes the decision by himself or herself without informing the group.
- **Consultative (C1):** The leader consults the team members to get their opinion about the situation, but he or she makes the decision for themselves.
- **Consultative (C2):** The leader consults the team members seeking opinions and suggestions, but he or she makes the decision for himself or herself. In this type of leadership style, the leader is open to suggestions and ideas.
- **Collaborative (G):** The leader shares the decision making process with team members. He or she supports the team in making the decision and finding an answer that everyone agrees on.

The model doesn't allow for the personality characteristics of the leader, allow for large group use, or provide questions that are precise enough. That said, it's very flexible and allows the leader the ability to make a good decision in a variety of different situations. It can also be shared and duplicated.

There are many more tools out there, ranging from complex software to back-of-the-napkin "T charts" that help an individual weigh the pros and cons of any given situation. The idea here is to understand that you don't have to go into the decision making process alone and confused – there are tools and processes that can help you make decisions the right way!

1. Vroom, Victor H., and Philip W. Yetton. *Leadership and Decision-Making*. Pittsburgh, PA: University of Pittsburgh Press, 1973.

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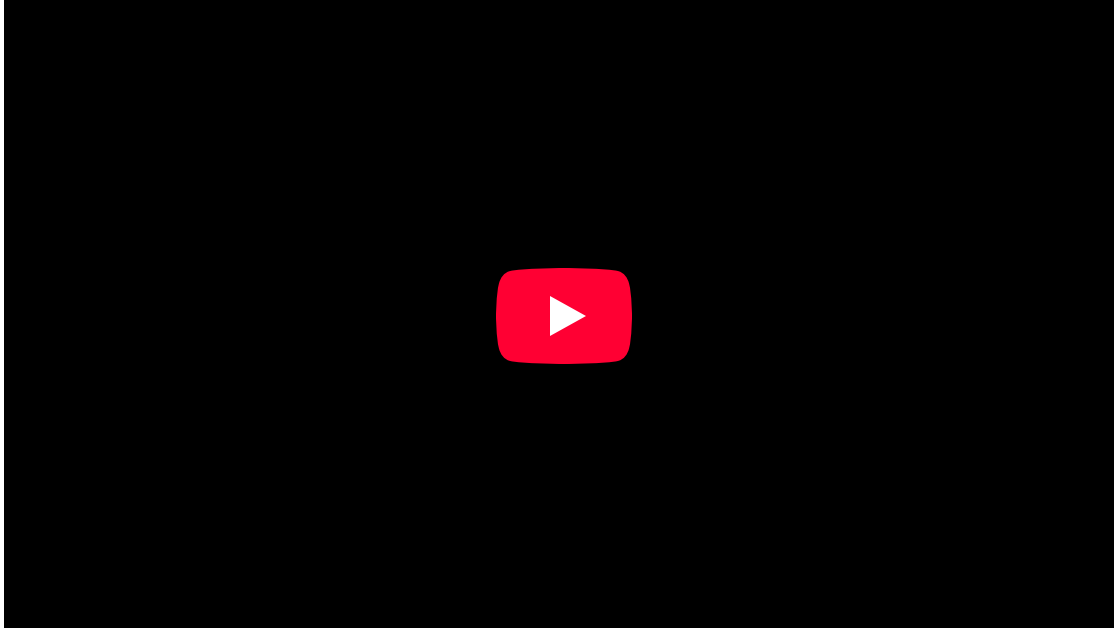
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4.6: How Miscommunication Happens

Communicating Informed Decisions

Even if we have collected and analyzed the necessary data to make an informed decision, the way in which we communicate has an impact on the acceptance of those decisions. Watch the following 4:33 video that provides a good introduction into how miscommunication too often occurs and provides some ideas on avoiding it:



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SECTION OVERVIEW

4.7: Effective Business Communication

Communication is Vital to Success

Communication is key to your success—in relationships, in the workplace, as a citizen of your country, and across your lifetime. Your ability to communicate comes from experience, and experience can be an effective teacher, but this text and the related business communication course will offer you a wealth of experiences gathered from professional speakers across their lifetimes. You can learn from the lessons they've learned and be a more effective communicator right out of the gate.

Business communication can be thought of as a problem solving activity in which individuals may address the following questions:

- What is the situation?
- What are some possible communication strategies?
- What is the best course of action?
- What is the best way to design the chosen message?
- What is the best way to deliver the message?

In this book, we will examine this problem solving process and help you learn to apply it in the kinds of situations you are likely to encounter over the course of your career.

4.7.1: Why Is It Important to Communicate Well?

4.7.2: What Is Communication?

4.7.3: Communication in Context

4.7.4: Your Responsibilities as a Communicator

4.7.5: Additional Resources

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4.7.1: Why Is It Important to Communicate Well?

Learning Objectives

- Recognize the importance of communication in gaining a better understanding of yourself and others.
- Explain how communication skills help you solve problems, learn new things, and build your career.

Communication Influences Your Thinking about Yourself and Others

We all share a fundamental drive to communicate. Communication can be defined as the process of understanding and sharing meaning (Pearson & Nelson, 2000). You share meaning in what you say and how you say it, both in oral and written forms. If you could not communicate, what would life be like? A series of never-ending frustrations? Not being able to ask for what you need or even to understand the needs of others?

Being unable to communicate might even mean losing a part of yourself, for you communicate your self-concept—your sense of self and awareness of who you are—in many ways. Do you like to write? Do you find it easy to make a phone call to a stranger or to speak to a room full of people? Perhaps someone told you that you don't speak clearly or your grammar needs improvement. Does that make you more or less likely to want to communicate? For some, it may be a positive challenge, while for others it may be discouraging. But in all cases, your ability to communicate is central to your self-concept.

Take a look at your clothes. What are the brands you are wearing? What do you think they say about you? Do you feel that certain styles of shoes, jewelry, tattoos, music, or even automobiles express who you are? Part of your self-concept may be that you express yourself through texting, or through writing longer documents like essays and research papers, or through the way you speak.

On the other side of the coin, your communications skills help you to understand others—not just their words, but also their tone of voice, their nonverbal gestures, or the format of their written documents provide you with clues about who they are and what their values and priorities may be. Active listening and reading are also part of being a successful communicator.

Communication Influences How You Learn

When you were an infant, you learned to talk over a period of many months. When you got older, you didn't learn to ride a bike, drive a car, or even text a message on your cell phone in one brief moment. You need to begin the process of improving your speaking and writing with the frame of mind that it will require effort, persistence, and self-correction.

You learn to speak in public by first having conversations, then by answering questions and expressing your opinions in class, and finally by preparing and delivering a “stand-up” speech. Similarly, you learn to write by first learning to read, then by writing and learning to think critically. Your speaking and writing are reflections of your thoughts, experience, and education. Part of that combination is your level of experience listening to other speakers, reading documents and styles of writing, and studying formats similar to what you aim to produce.

As you study business communication, you may receive suggestions for improvement and clarification from speakers and writers more experienced than yourself. Take their suggestions as challenges to improve; don't give up when your first speech or first draft does not communicate the message you intend. Stick with it until you get it right. Your success in communicating is a skill that applies to almost every field of work, and it makes a difference in your relationships with others.

Remember, luck is simply a combination of preparation and timing. You want to be prepared to communicate well when given the opportunity. Each time you do a good job, your success will bring more success.

Communication Represents You and Your Employer

You want to make a good first impression on your friends and family, instructors, and employer. They all want you to convey a positive image, as it reflects on them. In your career, you will represent your business or company in spoken and written form. Your professionalism and attention to detail will reflect positively on you and set you up for success.

In both oral and written situations, you will benefit from having the ability to communicate clearly. These are skills you will use for the rest of your life. Positive improvements in these skills will have a positive impact on your relationships, your prospects for employment, and your ability to make a difference in the world.

Communication Skills Are Desired by Business and Industry

Oral and written communication proficiencies are consistently ranked in the top ten desirable skills by employer surveys year after year. In fact, high-powered business executives sometimes hire consultants to coach them in sharpening their communication skills. According to the National Association of Colleges and Employers, the following are the top five personal qualities or skills potential employers seek:

1. Communication skills (verbal and written)
2. Strong work ethic
3. Teamwork skills (works well with others, group communication)
4. Initiative
5. Analytical skills

Knowing this, you can see that one way for you to be successful and increase your promotion potential is to increase your abilities to speak and write effectively.



Figure 4.7.1.1: Effective communication skills are assets that will get you there. Maryland GovPics – [Baltimore Jewish Council Meeting](#) – CC BY 2.0.

In September 2004, the National Commission on Writing for America’s Families, Schools, and Colleges published a study on 120 human resource directors titled *Writing: A Ticket to Work...Or a Ticket Out, A Survey of Business Leaders*. The study found that “writing is both a ‘marker’ of high-skill, high-wage, professional work and a ‘gatekeeper’ with clear equity implications,” said Bob Kerrey, president of New School University in New York and chair of the commission. “People unable to express themselves clearly in writing limit their opportunities for professional, salaried employment.” (The College Board, 2004)

On the other end of the spectrum, it is estimated that over forty million Americans are illiterate, or unable to functionally read or write. If you are reading this book, you may not be part of an at-risk group in need of basic skill development, but you still may need additional training and practice as you raise your skill level.

An individual with excellent communication skills is an asset to every organization. No matter what career you plan to pursue, learning to express yourself professionally in speech and in writing will help you get there.

Key Takeaway

Communication forms a part of your self-concept, and it helps you understand yourself and others, solve problems and learn new things, and build your career.

Exercises

1. Imagine that you have been hired to make “cold calls” to ask people whether they are familiar with a new restaurant that has just opened in your neighborhood. Write a script for the phone call. Ask a classmate to copresent as you deliver the script orally in class, as if you were making a phone call to the classmate. Discuss your experience with the rest of the class.
2. Imagine you have been assigned the task of creating a job description. Identify a job, locate at least two sample job descriptions, and create one. Please present the job description to the class and note to what degree communication skills play a role in the tasks or duties you have included.

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4.7.2: What Is Communication?

Learning Objectives

- Define communication and describe communication as a process.
- Identify and describe the eight essential components of communication.
- Identify and describe two models of communication.

Many theories have been proposed to describe, predict, and understand the behaviors and phenomena of which communication consists. When it comes to communicating in business, we are often less interested in theory than in making sure our communications generate the desired results. But in order to achieve results, it can be valuable to understand what communication is and how it works.

Defining Communication

The root of the word “communication” in Latin is *communicare*, which means to share, or to make common (Weekley, 1967). Communication is defined as the process of understanding and sharing meaning (Pearson & Nelson, 2000).

At the center of our study of communication is the relationship that involves interaction between participants. This definition serves us well with its emphasis on the process, which we’ll examine in depth across this text, of coming to understand and share another’s point of view effectively.

The first key word in this definition is process. A process is a dynamic activity that is hard to describe because it changes (Pearson & Nelson, 2000). Imagine you are alone in your kitchen thinking. Someone you know (say, your mother) enters the kitchen and you talk briefly. What has changed? Now, imagine that your mother is joined by someone else, someone you haven’t met before—and this stranger listens intently as you speak, almost as if you were giving a speech. What has changed? Your perspective might change, and you might watch your words more closely. The feedback or response from your mother and the stranger (who are, in essence, your audience) may cause you to reevaluate what you are saying. When we interact, all these factors—and many more—influence the process of communication.

The second key word is understanding: “To understand is to perceive, to interpret, and to relate our perception and interpretation to what we already know.” (McLean, 2003) If a friend tells you a story about falling off a bike, what image comes to mind? Now your friend points out the window and you see a motorcycle lying on the ground. Understanding the words and the concepts or objects they refer to is an important part of the communication process.

Next comes the word sharing. Sharing means doing something together with one or more people. You may share a joint activity, as when you share in compiling a report; or you may benefit jointly from a resource, as when you and several coworkers share a pizza. In communication, sharing occurs when you convey thoughts, feelings, ideas, or insights to others. You can also share with yourself (a process called intrapersonal communication) when you bring ideas to consciousness, ponder how you feel about something, or figure out the solution to a problem and have a classic “Aha!” moment when something becomes clear.

Finally, meaning is what we share through communication. The word “bike” represents both a bicycle and a short name for a motorcycle. By looking at the context the word is used in and by asking questions, we can discover the shared meaning of the word and understand the message.

Eight Essential Components of Communication

In order to better understand the communication process, we can break it down into a series of eight essential components:

1. Source
2. Message
3. Channel
4. Receiver
5. Feedback
6. Environment
7. Context
8. Interference

Each of these eight components serves an integral function in the overall process. Let's explore them one by one.

Source

The source imagines, creates, and sends the message. In a public speaking situation, the source is the person giving the speech. He or she conveys the message by sharing new information with the audience. The speaker also conveys a message through his or her tone of voice, body language, and choice of clothing. The speaker begins by first determining the message—what to say and how to say it. The second step involves encoding the message by choosing just the right order or the perfect words to convey the intended meaning. The third step is to present or send the information to the receiver or audience. Finally, by watching for the audience's reaction, the source perceives how well they received the message and responds with clarification or supporting information.

Message

“The message is the stimulus or meaning produced by the source for the receiver or audience.” (McLean, 2005) When you plan to give a speech or write a report, your message may seem to be only the words you choose that will convey your meaning. But that is just the beginning. The words are brought together with grammar and organization. You may choose to save your most important point for last. The message also consists of the way you say it—in a speech, with your tone of voice, your body language, and your appearance—and in a report, with your writing style, punctuation, and the headings and formatting you choose. In addition, part of the message may be the environment or context you present it in and the noise that might make your message hard to hear or see.

Imagine, for example, that you are addressing a large audience of sales reps and are aware there is a World Series game tonight. Your audience might have a hard time settling down, but you may choose to open with, “I understand there is an important game tonight.” In this way, by expressing verbally something that most people in your audience are aware of and interested in, you might grasp and focus their attention.

Channel

“The channel is the way in which a message or messages travel between source and receiver.” (McLean, 2005) For example, think of your television. How many channels do you have on your television? Each channel takes up some space, even in a digital world, in the cable or in the signal that brings the message of each channel to your home. Television combines an audio signal you hear with a visual signal you see. Together they convey the message to the receiver or audience. Turn off the volume on your television. Can you still understand what is happening? Many times you can, because the body language conveys part of the message of the show. Now turn up the volume but turn around so that you cannot see the television. You can still hear the dialogue and follow the story line.

Similarly, when you speak or write, you are using a channel to convey your message. Spoken channels include face-to-face conversations, speeches, telephone conversations and voice mail messages, radio, public address systems, and voice over Internet protocol (VoIP). Written channels include letters, memorandums, purchase orders, invoices, newspaper and magazine articles, blogs, e-mail, text messages, tweets, and so forth.

Receiver

“The receiver receives the message from the source, analyzing and interpreting the message in ways both intended and unintended by the source.” (McLean, 2005) To better understand this component, think of a receiver on a football team. The quarterback throws the football (message) to a receiver, who must see and interpret where to catch the ball. The quarterback may intend for the receiver to “catch” his message in one way, but the receiver may see things differently and miss the football (the intended meaning) altogether.

As a receiver you listen, see, touch, smell, and/or taste to receive a message. Your audience “sizes you up,” much as you might check them out long before you take the stage or open your mouth. The nonverbal responses of your listeners can serve as clues on how to adjust your opening. By imagining yourself in their place, you anticipate what you would look for if you were them. Just as a quarterback plans where the receiver will be in order to place the ball correctly, you too can recognize the interaction between source and receiver in a business communication context. All of this happens at the same time, illustrating why and how communication is always changing.

Feedback

When you respond to the source, intentionally or unintentionally, you are giving feedback. Feedback is composed of messages the receiver sends back to the source. Verbal or nonverbal, all these feedback signals allow the source to see how well, how accurately (or how poorly and inaccurately) the message was received. Feedback also provides an opportunity for the receiver or audience to ask for clarification, to agree or disagree, or to indicate that the source could make the message more interesting. As the amount of feedback increases, the accuracy of communication also increases (Leavitt & Mueller, 1951).

For example, suppose you are a sales manager participating in a conference call with four sales reps. As the source, you want to tell the reps to take advantage of the fact that it is World Series season to close sales on baseball-related sports gear. You state your message, but you hear no replies from your listeners. You might assume that this means they understood and agreed with you, but later in the month you might be disappointed to find that very few sales were made. If you followed up your message with a request for feedback (“Does this make sense? Do any of you have any questions?”) you might have an opportunity to clarify your message, and to find out whether any of the sales reps believed your suggestion would not work with their customers.

Environment

“The environment is the atmosphere, physical and psychological, where you send and receive messages.” (McLean, 2005) The environment can include the tables, chairs, lighting, and sound equipment that are in the room. The room itself is an example of the environment. The environment can also include factors like formal dress, that may indicate whether a discussion is open and caring or more professional and formal. People may be more likely to have an intimate conversation when they are physically close to each other, and less likely when they can only see each other from across the room. In that case, they may text each other, itself an intimate form of communication. The choice to text is influenced by the environment. As a speaker, your environment will impact and play a role in your speech. It’s always a good idea to go check out where you’ll be speaking before the day of the actual presentation.

Context

“The context of the communication interaction involves the setting, scene, and expectations of the individuals involved.” (McLean, 2005) A professional communication context may involve business suits (environmental cues) that directly or indirectly influence expectations of language and behavior among the participants.

A presentation or discussion does not take place as an isolated event. When you came to class, you came from somewhere. So did the person seated next to you, as did the instructor. The degree to which the environment is formal or informal depends on the contextual expectations for communication held by the participants. The person sitting next to you may be used to informal communication with instructors, but this particular instructor may be used to verbal and nonverbal displays of respect in the academic environment. You may be used to formal interactions with instructors as well, and find your classmate’s question of “Hey Teacher, do we have homework today?” as rude and inconsiderate when they see it as normal. The nonverbal response from the instructor will certainly give you a clue about how they perceive the interaction, both the word choices and how they were said.

Context is all about what people expect from each other, and we often create those expectations out of environmental cues. Traditional gatherings like weddings or quinceañeras are often formal events. There is a time for quiet social greetings, a time for silence as the bride walks down the aisle, or the father may have the first dance with his daughter as she is transformed from a girl to womanhood in the eyes of her community. In either celebration there may come a time for rambunctious celebration and dancing. You may be called upon to give a toast, and the wedding or quinceañera context will influence your presentation, timing, and effectiveness.



Figure 4.7.2.1: Context is all about what people expect from each other. Toshihiro Gamo – [Marriage Matrix](#) – CC BY-NC-ND 2.0.

In a business meeting, who speaks first? That probably has some relation to the position and role each person has outside the meeting. Context plays a very important role in communication, particularly across cultures.

Interference

Interference, also called noise, can come from any source. “Interference is anything that blocks or changes the source’s intended meaning of the message.” (McLean, 2005) For example, if you drove a car to work or school, chances are you were surrounded by noise. Car horns, billboards, or perhaps the radio in your car interrupted your thoughts, or your conversation with a passenger.

Psychological noise is what happens when your thoughts occupy your attention while you are hearing, or reading, a message. Imagine that it is 4:45 p.m. and your boss, who is at a meeting in another city, e-mails you asking for last month’s sales figures, an analysis of current sales projections, and the sales figures from the same month for the past five years. You may open the e-mail, start to read, and think, “Great—no problem—I have those figures and that analysis right here in my computer.” You fire off a reply with last month’s sales figures and the current projections attached. Then, at five o’clock, you turn off your computer and go home. The next morning, your boss calls on the phone to tell you he was inconvenienced because you neglected to include the sales figures from the previous years. What was the problem? Interference: by thinking about how you wanted to respond to your boss’s message, you prevented yourself from reading attentively enough to understand the whole message.

Interference can come from other sources, too. Perhaps you are hungry, and your attention to your current situation interferes with your ability to listen. Maybe the office is hot and stuffy. If you were a member of an audience listening to an executive speech, how could this impact your ability to listen and participate?

Noise interferes with normal encoding and decoding of the message carried by the channel between source and receiver. Not all noise is bad, but noise interferes with the communication process. For example, your cell phone ringtone may be a welcome noise to you, but it may interrupt the communication process in class and bother your classmates.

Two Models of Communication

Researchers have observed that when communication takes place, the source and the receiver may send messages at the same time, often overlapping. You, as the speaker, will often play both roles, as source and receiver. You’ll focus on the communication and the reception of your messages to the audience. The audience will respond in the form of feedback that will give you important clues. While there are many models of communication, here we will focus on two that offer perspectives and lessons for business communicators.

Rather than looking at the source sending a message and someone receiving it as two distinct acts, researchers often view communication as a transactional process (Figure 4.7.2.2), with actions often happening at the same time. The distinction between source and receiver is blurred in conversational turn-taking, for example, where both participants play both roles simultaneously.



Figure 4.7.2.2: Transactional Model of Communication

Researchers have also examined the idea that we all construct our own interpretations of the message. As the State Department quote at the beginning of this chapter indicates, what I said and what you heard may be different. In the constructivist model (Figure 4.7.2.3), we focus on the negotiated meaning, or common ground, when trying to describe communication (Pearce & Cronen, 1980),

Imagine that you are visiting Atlanta, Georgia, and go to a restaurant for dinner. When asked if you want a “Coke,” you may reply, “sure.” The waiter may then ask you again, “what kind?” and you may reply, “Coke is fine.” The waiter then may ask a third time, “what kind of soft drink would you like?” The misunderstanding in this example is that in Atlanta, the home of the Coca-Cola Company, most soft drinks are generically referred to as “Coke.” When you order a soft drink, you need to specify what type, even if you wish to order a beverage that is not a cola or not even made by the Coca-Cola Company. To someone from other regions of the United States, the words “pop,” “soda pop,” or “soda” may be the familiar way to refer to a soft drink; not necessarily the brand “Coke.” In this example, both you and the waiter understand the word “Coke,” but you each understand it to mean something different. In order to communicate, you must each realize what the term means to the other person, and establish common ground, in order to fully understand the request and provide an answer.

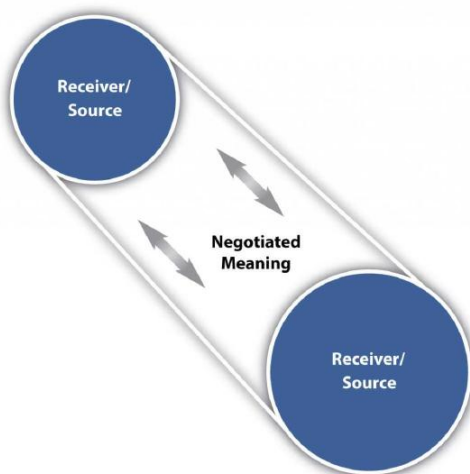


Figure 4.7.2.3: Constructivist Model of Communication

Because we carry the multiple meanings of words, gestures, and ideas within us, we can use a dictionary to guide us, but we will still need to negotiate meaning.

Key Takeaway

The communication process involves understanding, sharing, and meaning, and it consists of eight essential elements: source, message, channel, receiver, feedback, environment, context, and interference. Among the models of communication are the transactional process, in which actions happen simultaneously, and the constructivist model, which focuses on shared meaning.

Exercises

1. Draw what you think communication looks like. Share your drawing with your classmates.
2. List three environmental cues and indicate how they influence your expectations for communication. Please share your results with your classmates.
3. How does context influence your communication? Consider the language and culture people grew up with, and the role these play in communication styles.
4. If you could design the perfect date, what activities, places, and/or environmental cues would you include to set the mood? Please share your results with your classmates.

5. Observe two people talking. Describe their communication. See if you can find all eight components and provide an example for each one.
6. What assumptions are present in transactional model of communication? Find an example of a model of communication in your workplace or classroom, and provide an example for all eight components.

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4.7.3: Communication in Context

Learning Objectives

- Identify and describe five types of communication contexts.

Now that we have examined the eight components of communication, let's examine this in context. Is a quiet dinner conversation with someone you care about the same experience as a discussion in class or giving a speech? Is sending a text message to a friend the same experience as writing a professional project proposal or a purchase order? Each context has an influence on the communication process. Contexts can overlap, creating an even more dynamic process. You have been communicating in many of these contexts across your lifetime, and you'll be able to apply what you've learned through experience in each context to business communication.

Intrapersonal Communication

Have you ever listened to a speech or lecture and gotten caught up in your thoughts so that, while the speaker continued, you were no longer listening? During a phone conversation, have you ever been thinking about what you are going to say, or what question you might ask, instead of listening to the other person? Finally, have you ever told yourself how you did after you wrote a document or gave a presentation? As you “talk with yourself” you are engaged in intrapersonal communication.

Intrapersonal communication involves one person; it is often called “self-talk.” (Wood, 1997) Donna Vocate's book on intrapersonal communication explains how, as we use language to reflect on our own experiences, we talk ourselves through situations. For example, the voice within you that tells you, “Keep on Going! I can DO IT!” when you are putting your all into completing a five-mile race; or that says, “This report I've written is pretty good.” Your intrapersonal communication can be positive or negative, and directly influences how you perceive and react to situations and communication with others.

What you perceive in communication with others is also influenced by your culture, native language, and your world view. As the German philosopher Jürgen Habermas said, “Every process of reaching understanding takes place against the background of a culturally ingrained preunderstanding.” (Habermas, 1984)

For example, you may have certain expectations of time and punctuality. You weren't born with them, so where did you learn them? From those around you as you grew up. What was normal for them became normal for you, but not everyone's idea of normal is the same.

When your supervisor invites you to a meeting and says it will start at 7 p.m., does that mean 7:00 sharp, 7-ish, or even 7:30? In the business context, when a meeting is supposed to start at 9 a.m., is it promptly a 9 a.m.? Variations in time expectations depend on regional and national culture as well as individual corporate cultures. In some companies, everyone may be expected to arrive ten to fifteen minutes before the announced start time to take their seats and be ready to commence business at 9:00 sharp. In other companies, “meeting and greeting” from about 9 to 9:05 or even 9:10 is the norm. When you are unfamiliar with the expectations for a business event, it is always wise to err on the side of being punctual, regardless of what your internal assumptions about time and punctuality may be.

Interpersonal Communication

The second major context within the field of communication is interpersonal communication. Interpersonal communication normally involves two people, and can range from intimate and very personal to formal and impersonal. You may carry on a conversation with a loved one, sharing a serious concern. Later, at work, you may have a brief conversation about plans for the weekend with the security guard on your way home. What's the difference? Both scenarios involve interpersonal communication, but are different in levels of intimacy. The first example implies a trusting relationship established over time between two caring individuals. The second example level implies some previous familiarity, and is really more about acknowledging each other than any actual exchange of information, much like saying hello or goodbye.

Group Communication

Have you ever noticed how a small group of people in class sit near each other? Perhaps they are members of the same sports program, or just friends, but no doubt they often engage in group communication.

“Group communication is a dynamic process where a small number of people engage in a conversation.” (McLean, 2005) Group communication is generally defined as involving three to eight people. The larger the group, the more likely it is to break down into smaller groups.

To take a page from marketing, does your audience have segments or any points of convergence/divergence? We could consider factors like age, education, sex, and location to learn more about groups and their general preferences as well as dislikes. You may find several groups within the larger audience, such as specific areas of education, and use this knowledge to increase your effectiveness as a business communicator.

Public Communication

In public communication, one person speaks to a group of people; the same is true of public written communication, where one person writes a message to be read by a small or large group. The speaker or writer may ask questions, and engage the audience in a discussion (in writing, examples are an e-mail discussion or a point-counter-point series of letters to the editor), but the dynamics of the conversation are distinct from group communication, where different rules apply. In a public speaking situation, the group normally defers to the speaker. For example, the boss speaks to everyone, and the sales team quietly listens without interruption.

This generalization is changing as norms and expectations change, and many cultures have a tradition of “call outs” or interjections that are not to be interpreted as interruptions or competition for the floor, but instead as affirmations. The boss may say, as part of a charged-up motivational speech, “Do you hear me?” and the sales team is expected to call back “Yes Sir!” The boss, as a public speaker, recognizes that intrapersonal communication (thoughts of the individual members) or interpersonal communication (communication between team members) may interfere with this classic public speaking dynamic of all to one, or the audience devoting all its attention to the speaker, and incorporate attention getting and engagement strategies to keep the sales team focused on the message.

Mass Communication

How do you tell everyone on campus where and when all the classes are held? Would a speech from the front steps work? Perhaps it might meet the need if your school is a very small one. A written schedule that lists all classes would be a better alternative. How do you let everyone know there is a sale on in your store, or that your new product will meet their needs, or that your position on a political issue is the same as your constituents? You send a message to as many people as you can through mass communication. Does everyone receive mass communication the same way the might receive a personal phone call? Not likely. Some people who receive mass mailings assume that they are “junk mail” (i.e., that they do not meet the recipients’ needs) and throw them away unopened. People may tune out a television advertisement with a click of the mute button, delete tweets or ignore friend requests on Facebook by the hundreds, or send all unsolicited e-mail straight to the spam folder unread.

Mass media is a powerful force in modern society and our daily lives, and is adapting rapidly to new technologies. Mass communication involves sending a single message to a group. It allows us to communicate our message to a large number of people, but we are limited in our ability to tailor our message to specific audiences, groups, or individuals. As a business communicator, you can use multimedia as a visual aid or reference common programs, films, or other images that your audience finds familiar yet engaging. You can tweet a picture that is worth far more than 140 characters, and you are just as likely to elicit a significant response. By choosing messages or references that many audience members will recognize or can identify with, you can develop common ground and increase the appeal of your message.

Key Takeaway

Communication contexts include intrapersonal, interpersonal, group, public, and mass communication. Each context has its advantages and disadvantages, and its appropriate and inappropriate uses.

Exercises

1. Please recall a time when you gave a speech in front of a group. How did you feel? What was your experience? What did you learn from your experience?
2. If you were asked to get the attention of your peers, what image or word would you choose and why?
3. If you were asked to get the attention of someone like yourself, what image or word would you choose and why?
4. Make a list of mass communication messages you observe for a one hour period of time. Share your list with classmates.

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4.7.4: Your Responsibilities as a Communicator

Learning Objectives

1. Discuss and provide several examples of each of the two main responsibilities of a business communicator.

Whenever you speak or write in a business environment, you have certain responsibilities to your audience, your employer, and your profession. Your audience comes to you with an inherent set of expectations that you will fulfill these responsibilities. The specific expectations may change given the context or environment, but two central ideas will remain: be prepared, and be ethical.

Communicator is Prepared

As the business communicator's first responsibility, preparation includes several facets which we will examine: organization, clarity, and being concise and punctual.

Being prepared means that you have selected a topic appropriate to your audience, gathered enough information to cover the topic well, put your information into a logical sequence, and considered how best to present it. If your communication is a written one, you have written an outline and at least one rough draft, read it over to improve your writing and correct errors, and sought feedback where appropriate. If your communication is oral, you have practiced several times before your actual performance.

The Prepared Communicator is Organized

Part of being prepared is being organized. Aristotle called this *logos*, or logic, and it involves the steps or points that lead your communication to a conclusion. Once you've invested time in researching your topic, you will want to narrow your focus to a few key points and consider how you'll present them. On any given topic there is a wealth of information; your job is to narrow that content down to a manageable level, serving the role of gatekeeper by selecting some information and "de-selecting," or choosing to not include other points or ideas.

You also need to consider how to link your main points together for your audience. Use transitions to provide signposts or cues for your audience to follow along. "Now that we've examined X, let's consider Y" is a transitional statement that provides a cue that you are moving from topic to topic. Your listeners or readers will appreciate your being well organized so that they can follow your message from point to point.

The Prepared Communicator is Clear

You have probably had the unhappy experience of reading or listening to a communication that was vague and wandering. Part of being prepared is being clear. If your message is unclear, the audience will lose interest and tune you out, bringing an end to effective communication.

Interestingly, clarity begins with intrapersonal communication: you need to have a clear idea in your mind of what you want to say before you can say it clearly to someone else. At the interpersonal level, clarity involves considering your audience, as you will want to choose words and phrases they understand and avoid jargon or slang that may be unfamiliar to them.

Clarity also involves presentation. A brilliant message scrawled in illegible handwriting, or in pale gray type on gray paper, will not be clear. When it comes to oral communication, if you mumble your words, speak too quickly or use a monotonous tone of voice, or stumble over certain words or phrases, the clarity of your presentation will suffer.

Technology also plays a part; if you are using a microphone or conducting a teleconference, clarity will depend on this equipment functioning properly—which brings us back to the importance of preparation. In this case, in addition to preparing your speech, you need to prepare by testing the equipment ahead of time.

The Prepared Communicator is Concise and Punctual

Concise means brief and to the point. In most business communications you are expected to "get down to business" right away. Being prepared includes being able to state your points clearly and support them with clear evidence in a relatively straightforward, linear way.

It may be tempting to show how much you know by incorporating additional information into your document or speech, but in so doing you run the risk of boring, confusing, or overloading your audience. Talking in circles or indulging in tangents, where you

get off topic or go too deep, can hinder an audience's ability to grasp your message. Be to the point and concise in your choice of words, organization, and even visual aids.

Being concise also involves being sensitive to time constraints. How many times have you listened to a speaker say “in conclusion” only to continue speaking for what seems like forever? How many meetings and conference calls have you attended that got started late or ran beyond the planned ending time? The solution, of course, is to be prepared to be punctual. If you are asked to give a five-minute presentation at a meeting, your coworkers will not appreciate your taking fifteen minutes, any more than your supervisor would appreciate your submitting a fifteen-page report when you were asked to write five pages. For oral presentations, time yourself when you rehearse and make sure you can deliver your message within the allotted number of minutes.



Figure 4.7.4.1: Good business communication does not waste words or time. Angelina Earley – [Times! Of! The World!](#) – CC BY-NC-ND 2.0

There is one possible exception to this principle. Many non-Western cultures prefer a less direct approach, where business communication often begins with social or general comments that a U.S. audience might consider unnecessary. Some cultures also have a less strict interpretation of time schedules and punctuality. While it is important to recognize that different cultures have different expectations, the general rule holds true that good business communication does not waste words or time.

Communicator is Ethical

The business communicator's second fundamental responsibility is to be ethical. Ethics refers to a set of principles or rules for correct conduct. It echoes what Aristotle called *ethos*, the communicator's good character and reputation for doing what is right. Communicating ethically involves being egalitarian, respectful, and trustworthy—overall, practicing the “golden rule” of treating your audience the way you would want to be treated.

Communication can move communities, influence cultures, and change history. It can motivate people to take stand, consider an argument, or purchase a product. The degree to which you consider both the common good and fundamental principles you hold to be true when crafting your message directly relates to how your message will affect others.

The Ethical Communicator is Egalitarian

The word “egalitarian” comes from the root “equal.” To be egalitarian is to believe in basic equality: that all people should share equally in the benefits and burdens of a society. It means that everyone is entitled to the same respect, expectations, access to information, and rewards of participation in a group.

To communicate in an egalitarian manner, speak and write in a way that is comprehensible and relevant to all your listeners or readers, not just those who are “like you” in terms of age, gender, race or ethnicity, or other characteristics.

In business, you will often communicate to people with certain professional qualifications. For example, you may draft a memo addressed to all the nurses in a certain hospital, or give a speech to all the adjusters in a certain branch of an insurance company. Being egalitarian does not mean you have to avoid professional terminology that is understood by nurses or insurance adjusters. But it does mean that your hospital letter should be worded for all the hospital's nurses—not just female nurses, not just nurses working directly with patients, not just nurses under age fifty-five. An egalitarian communicator seeks to unify the audience by using ideas and language that are appropriate for all the message's readers or listeners.

The Ethical Communicator is Respectful

People are influenced by emotions as well as logic. Aristotle named *pathos*, or passion, enthusiasm and energy, as the third of his three important parts of communicating after *logos* and *ethos*.

Most of us have probably seen an audience manipulated by a “cult of personality,” believing whatever the speaker said simply because of how dramatically he or she delivered a speech; by being manipulative, the speaker fails to respect the audience. We may have also seen people hurt by sarcasm, insults, and other disrespectful forms of communication.

This does not mean that passion and enthusiasm are out of place in business communication. Indeed, they are very important. You can hardly expect your audience to care about your message if you don’t show that you care about it yourself. If your topic is worth writing or speaking about, make an effort to show your audience why it is worthwhile by speaking enthusiastically or using a dynamic writing style. Doing so, in fact, shows respect for their time and their intelligence.

However, the ethical communicator will be passionate and enthusiastic without being disrespectful. Losing one’s temper and being abusive are generally regarded as showing a lack of professionalism (and could even involve legal consequences for you or your employer). When you disagree strongly with a coworker, feel deeply annoyed with a difficult customer, or find serious fault with a competitor’s product, it is important to express such sentiments respectfully. For example, instead of telling a customer, “I’ve had it with your complaints!” a respectful business communicator might say, “I’m having trouble seeing how I can fix this situation. Would you explain to me what you want to see happen?”

The Ethical Communicator is Trustworthy

Trust is a key component in communication, and this is especially true in business. As a consumer, would you choose to buy merchandise from a company you did not trust? If you were an employer, would you hire someone you did not trust?

Your goal as a communicator is to build a healthy relationship with your audience, and to do that you must show them why they can trust you and why the information you are about to give them is believable. One way to do this is to begin your message by providing some information about your qualifications and background, your interest in the topic, or your reasons for communicating at this particular time.

Your audience will expect that what you say is the truth as you understand it. This means that you have not intentionally omitted, deleted, or taken information out of context simply to prove your points. They will listen to what you say and how you say it, but also to what you don’t say or do. You may consider more than one perspective on your topic, and then select the perspective you perceive to be correct, giving concrete reasons why you came to this conclusion. People in the audience may have considered or believe in some of the perspectives you consider, and your attention to them will indicate you have done your homework.

Being worthy of trust is something you earn with an audience. Many wise people have observed that trust is hard to build but easy to lose. A communicator may not know something and still be trustworthy, but it’s a violation of trust to pretend you know something when you don’t. Communicate what you know, and if you don’t know something, research it before you speak or write. If you are asked a question to which you don’t know the answer, say “I don’t know the answer but I will research it and get back to you” (and then make sure you follow through later). This will go over much better with the audience than trying to cover by stumbling through an answer or portraying yourself as knowledgeable on an issue that you are not.

The “Golden Rule”

When in doubt, remember the “golden rule,” which says to treat others the way you would like to be treated. In all its many forms, the golden rule incorporates human kindness, cooperation, and reciprocity across cultures, languages, backgrounds and interests. Regardless of where you travel, who you communicate with, or what your audience is like, remember how you would feel if you were on the receiving end of your communication, and act accordingly.

Key Takeaway

As a communicator, you are responsible for being prepared and being ethical. Being prepared includes being organized, clear, concise, and punctual. Being ethical includes being egalitarian, respectful, and trustworthy and overall, practicing the “golden rule.”

Exercises

1. Recall one time you felt offended or insulted in a conversation. What contributed to your perception? Please share your comments with classmates.
2. When someone lost your trust, were they able earn it back? Please share your comments with classmates?
3. Does the communicator have a responsibility to the audience? Does the audience have a responsibility to the speaker? Why or why not? Please share your comments with classmates.

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4.7.5: Additional Resources

For More Information Consult These Additional Resources

The International Association of Business Communicators (IABC) is a global network of communication professionals committed to improving organizational effectiveness through strategic communication. <http://www.iabc.com>

Explore the Web site of the National Communication Association, the largest U.S. organization dedicated to communication. <http://www.natcom.org>

Read The National Commission on Writing's findings about the importance of communication skills in business. www.writingcommission.org/pr/writing_for_employ.html

The National Association of Colleges and Employers offers news about employment prospects for college graduates. <http://www.naceweb.org>

Dale Carnegie, author of the classic *How to Win Friends and Influence People*, may have been one of the greatest communicators of the twentieth-century business world. The Dale Carnegie Institute focuses on giving people in business the opportunity to sharpen their skills and improve their performance in order to build positive, steady, and profitable results. <http://www.dalecarnegie.com>

Purdue University's Online Writing Lab (OWL) provides a wealth of resources for writing projects. <http://owl.english.purdue.edu>

To communicate ethically, check your facts. FactCheck is a nonpartisan project of the Annenberg Center for Public Policy at the University of Pennsylvania. <http://www.factcheck.org>

To communicate ethically, check your facts. PolitiFact is a nonpartisan project of the St. Petersburg Times; it won a Pulitzer Prize in 2009. <http://www.politifact.com>

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CHAPTER OVERVIEW

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5.1: Overview and Guiding Questions

Ethics in Decision-Making

This section helps students to **integrate ethical considerations into their decision-making**.

Consider the following questions as you review the learning materials:

- What are common ethical issues in business?
- How do your personal values, beliefs, and biases influence your decision-making?
- What is the Triple Bottom Line and how does it relate to ethical decision-making?
- How can you assess the impact that ethical decision-making has on stakeholders?

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5.2: The Importance of Business Ethics

Why is Ethics Important in Business?

Ethics is a term that we hear a lot about. We know it is important to act ethically in our personal lives, but why is it so important in business?

Watch the following 8:01 video, which provides a good introduction to many of the important concepts concerning ethics in business:



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SECTION OVERVIEW

5.3: Ethics, Corporate Responsibility, and Sustainability

Learning Objectives

After reading this chapter, you should be able to answer these questions:

1. What are ethics and business ethics?
2. What are the types of values that motivate ethics at the individual level?
3. What are major ethical principles that can guide individuals and organizations?
4. Why is ethical leadership important in organizations?
5. What are differences between values-based ethics and compliance in organizations?
6. What purpose can CSR (corporate social responsibility) offer to organizations and society?
7. What ethical issues do organizations and individuals encounter in the global environment?
8. What future near-term forecasts will affect ethical and corporate conduct of organizations?

5.3.1: Introduction

5.3.2: Ethics and Business Ethics Defined

5.3.3: Dimensions of Ethics- The Individual Level

5.3.4: Ethical Principles and Responsible Decision-Making

5.3.5: Leadership- Ethics at the Organizational Level

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5.3.10: Summary

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5.3.1: Introduction

Careers in Management

📌 Exploring Managerial Careers

Playing with a Purpose at Hasbro

Hasbro is a global play and entertainment company that takes corporate social responsibility (CSR) very seriously. Founded nearly a century ago in Rhode Island, Hasbro integrates its CSR efforts throughout the organization with the goal of helping to make the world a better place for children of all ages.

In 2017, the company achieved the number one spot in the “100 Best Corporate Citizens” rankings, published annually by *Corporate Responsibility* magazine. Hasbro is no stranger to this achievement; over the past five years Hasbro has consistently been in the top five spots on this prestigious list—and that is no accident.

With more than 5,000 employees, Hasbro relies heavily on its strategic brand blueprint to guide its efforts in CSR, innovation, philanthropy, and product development. With a business portfolio that includes such well-known brands as Nerf, Play-Doh, Transformers, Monopoly, and The Game of Life, the company focuses its CSR efforts on four key areas: product safety, environmental sustainability, human rights and ethical sourcing, and community.

According to the company, product safety is its highest priority. Hasbro uses a five-step quality assurance process that starts with design and then moves to engineering, manufacturing, and packaging. Another key part of product safety at Hasbro is incorporating continuous feedback from both consumers and retailers and insisting that these high standards and quality processes apply to all thirdparty factories worldwide that manufacture its products.

Hasbro is also committed to finding new ways to reduce its environmental footprint. Over the past several years, the company has reduced energy consumption, cut greenhouse gas emissions, and reduced water consumption and waste production in its production facilities. In addition, Hasbro has totally eliminated the use of wire ties in all of its product packaging, saving more than 34,000 miles of wire tires—more than enough to wrap around the earth’s circumference.

Human rights and ethical sourcing remain a key ingredient of Hasbro’s CSR success. Treating people fairly is a core company value, as well as working diligently to make great strides in diversity and inclusion at all levels of the organization. Company personnel work closely with third-party factories to ensure that the human rights of all workers in the Hasbro global supply chain are recognized and upheld.

Philanthropy, corporate giving, and employee volunteering are key components of the Hasbro community. Through its various charitable programs, Hasbro made close to \$15 million in financial contributions and product donations in 2016, which reached close to an estimated 4 million children around the globe. Several years ago, the company started an annual Global Day of Joy as a way of engaging its employees worldwide in community service. In a recent year, more than 93 percent of Hasbro’s employees participated in service projects in more than 40 countries.

Hasbro is in the business of storytelling, and its CSR efforts tell the story of an ethical, responsible organization whose mission is to “create the world’s best play experiences.” Its ability to be accountable for its actions and to help make the world a better place one experience at a time continues to make it a highly successful company.

Sources: Brian Goldner, “Who Are You Really?—Brian Goldner, President & CEO for Hasbro, Inc.,” insights.ethisphere.com, accessed June 29, 2017; “CSR Fact Sheet,” <https://csr.hasbro.com>, accessed June 23, 2017; “The World’s Biggest Public Companies: Hasbro,” *Forbes*, <https://www.forbes.com>, accessed June 23, 2017; “2016 Global Philanthropy & Social Impact,” <https://csr.hasbro.com>, accessed June 23, 2017; Elizabeth Gurdus, “Hasbro CEO Reveals the Magic Behind the Toymaker’s Earnings Beat,” *CNBC*, <http://www.cnbc.com>, April 24, 2017; Jade Burke, “Hasbro Reaches Top spot in CSR Listing,” *Toy News*, www.toynews-online.biz, April 21, 2017; Kathrin Belliveau, “CSR at Hasbro: What It Means to Play with Purpose,” *LinkedIn*, www.linkedin.com, April 20, 2017.

This chapter will examine the role of ethics and how it affects organizations. Ethics is examined at the individual level, the organizational level, and also examines the role of ethics and leadership. Corporate social responsibility and how it is different than

compliance will also be examined. Finally, ethics around the globe and in different cultures and the emerging issues regarding corporate social responsibility and ethics will be discussed.

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5.3.2: Ethics and Business Ethics Defined

Learning Objectives

1. Understand what ethics and business ethics are

Ethics essentially involves how we act, live, lead our lives, and treat others. Our choices and decision-making processes and our moral principles and values that govern our behaviors regarding what is right and wrong are also part of ethics.¹

Normative ethics refers to the field of ethics concerned with our asking how *should* and *ought* we live and act? **Business ethics** is applied ethics that focuses on real-world situations and the context and environment in which transactions occur—How should we apply our values to the way we conduct business?

Ethics and business ethics continue to gain influence in corporations, universities, and colleges nationally and internationally. No longer considered a luxury but a necessity, business ethics has awakened a need in the public consciousness due to crises in many areas. For example, the 2008 subprime lending crisis—economic effects of which still persist—revealed widespread corruption of large investment banks and lending institutions internationally. Unsupported mortgages were fraudulently offered with no legitimate financial backing. Some large financial institutions, such as Lehman Brothers Holdings, Inc., went bankrupt; millions of mortgage holders lost their homes. An estimated cost of that crisis to the global economy is over \$22 trillion U.S. dollars.²

In the early 2000s, CEOs and top-level leaders from notable corporations such as Enron, Tyco, WorldCom, and others were caught committing outrageously greedy and fraudulent crimes of white-collar theft from their organizations and shareholders. The now classic film *The Smartest Guys in the Room* depict how Enron's leaders during that time, Kenneth Lay (now deceased), Jeff Skilling (still serving prison time), and Andrew Fastow (released from prison in 2011), deceived employees, Wall Street, and shareholders. Enron's crisis took an estimated \$67 billion of shareholder wealth out of the U.S. economy.³ These criminal activities ushered in national laws such as the Sarbanes-Oxley Act, which we discuss below.

While these recent historical crises illustrate the continuing relevance and importance of business ethics, ethical issues are not only concerned with financial and economically motivated crimes and misbehaviors. Fast forward to the rise of artificial intelligence (AI), which also is calling attention to the relevance and need for ethics in scientific institutions, businesses, and governments. The public needs to be informed of potential and actual harmful consequences—as well as all the recognizable benefits—of these technologies that are in large part driven by algorithms (“a sequence of instructions telling a computer what to do”).⁴ Intentional and unintentional misuses of such designs embedded in artificially intelligent technologies can negatively and harmfully affect individual lives as well as entire societies. For example, studies show that a number of minority members of society are often discriminated against by institutions using faulty algorithms to qualify customers for mortgages and to predict who is at risk of being incarcerated. Often times, racial and low-income minorities are discriminated against by such technology designs.⁵

At a societal level, another now classic film, *The Minority Report*, illustrates how misuses of technology can threaten individual rights, privacy, free will, and choice. While this may sound like science fiction, scientific and business luminaries such as Elon Musk, Stephen Hawking, Bill Gates, and others have openly declared that we as a society must be cautious and ethically aware and active to fend off the ill effects of the control and dominant influences of certain AI algorithms in our lives. Scientific and ethical practices in corporate social responsibility (CSR) are one way that ethicists, business leaders, and consumers can support moral self-regulation of technologies. Some scientific and technological firms have adopted ethics boards to help safeguard against harmful social uses of AI technologies.⁶ The European Union (EU) has produced policy studies that are forerunners of laws to safeguard against potentially harmful uses of robotics.⁷

Another timely ethical issue is climate change and the environment. Lack of sustainable environmental practices that curb air pollution and destructive uses of land, water, and natural resources have, according to a large community of reputable scientists, threatened Earth's—and our neighborhoods'—atmosphere.⁸ Scientific studies and United Nations reports affirm that changes to the earth's atmosphere, melting glaciers, and rising seas are occurring at accelerated rates. For example, “California's coastline could rise up to 10 feet by 2100, about 30 to 40 times faster than sea-level rise experienced over the last century.”⁹ While university, business, and local community groups are rallying for legal actions to curtail and reverse environmental polluters, current political executive orders push against such regulations designed to protect against further erosion of the physical environment.¹⁰ The point here is that as these issues described above are not only technological, economic, and political in nature, but also moral and ethical, as the public's health, welfare, and safety are at risk.

Relevant ethical questions can be asked to prevent a crisis: Who is responsible for preventing and addressing what happens to individuals, the public, our institutions, and government and who is responsible for preventing such crises and harmful effects from occurring and reoccurring? At whose and what costs? Whose responsibility is it to protect and preserve the common good of societies? What ethical and moral principles should and can motivate individuals, groups, and society members to act to change course?

Universities and colleges are taking notice. Business ethics and corporate social responsibility courses and offerings are becoming increasingly important. The accrediting national body of business schools, AACSB (Association to Advance Collegiate Schools of Business), reported that “[i]n their curricula, research, and outreach, business schools must be advocates for the human dimension of business, with attention to ethics, diversity, and personal well-being.”¹¹ In addition, NGOs (nongovernmental organizations), emergent groups internationally representing the public’s interests and common good, and political action movements are beginning again to give voice to injustices and potentially dangerous ethical as well as fiscal (income inequality), health (the environment), and discriminatory (racism and stereotyping large segments of the society) problems that require **stakeholder** as well as stockholder actions.

In this chapter, we begin by presenting an overview of the dimensions of business ethics at the individual, professional, and leadership levels, followed by the organizational, societal, and global levels.

? Concept Check

1. What individual and organizational ethical issues can we expect to occur?
2. What are some signs of unethical activities you might notice individually and organizationally?

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5.3.3: Dimensions of Ethics- The Individual Level

Learning Objectives

1. Understand the types of values that affect business ethics at the individual level.

Ethics is personal and unique to each individual. Ethical decision-making also involves other individuals, groups, organizations, and even nations—stakeholders and stockholders—as we later explain. Kenneth Goodpaster and Laura Nash characterized at least three dimensions or levels of ethics that help explain how individual and group values, norms, and behaviors of different stakeholders interact and respond with the aim of bringing orderly, fair, and just relationships with one another in transactions. This approach is illustrated in Exhibit 5.2.

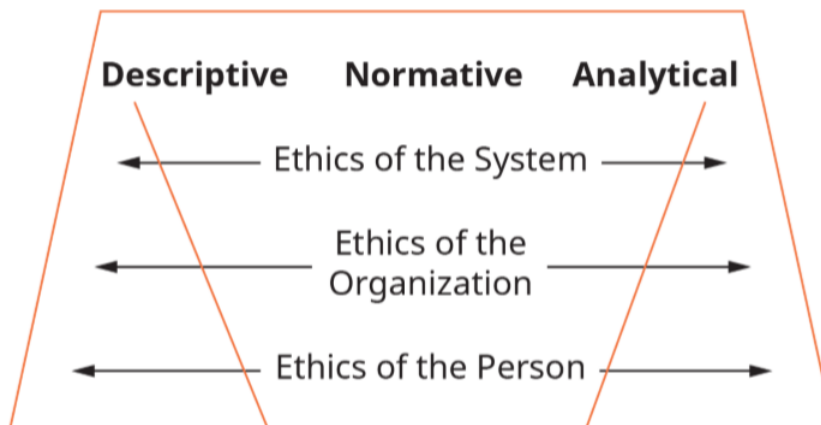


Exhibit 5.2 A Framework for Classifying Levels of Ethical Analysis Source: Adapted from Matthews, John B., Goodpaster, Kenneth E., and Laura L. Nash. (1985). *Policies and persons: A casebook in business ethics*, 509. New York: McGraw- Hill.

Ethical principles generally are codified into laws and regulations when there is societal consensus about such wrongdoing, such as laws against drunk driving, robbery, and murder. These laws, and sometimes unwritten societal norms and values, shape the local environment within which individuals act and conduct business. At the individual level, a person’s values and beliefs are influenced by family, community, peers and friends, local and national culture, society, religious—or other types of—communities, and geographic environment. It is important to look at individual values and ethical principles since these influence an individual’s decisions and actions, whether it be decisions to act or the failure to act against wrongdoing by others. In organizations, an individual’s ethical stance may be affected by peers, subordinates, and supervisors, as well as by the organizational culture. Organizational culture often has a profound influence on individual choices and can support and encourage ethical actions or promote unethical and socially irresponsible behavior.

Ethics and Values: Terminal and Instrumental Values

Of the values that make up an organization’s culture, and an individual’s motivations, ethical values are now considered among the most important. For instance, when Google took its company public in 2004, its prospectus included an unusual corporate goal: “Don’t be evil.” That can be a challenge when you’re a multibillion-dollar corporation operating around the world, with investors expecting you to produce a profit. Google’s operations in the United States and overseas have generated controversy and debate as to how well it’s living up to its stated goal. There is a continuing need to integrate ethical values in corporations. The Ethics & Compliance Initiative found 22 percent of global workers reported pressure to compromise their standards.¹² Top corporate managers are under scrutiny from the public as never before, and even small companies are finding a need to put more emphasis on ethics to restore trust among their customers and the community.



Exhibit 5.3 Elon Musk Elon Musk, the CEO of Tesla and SpaceX, pictured here at a TedX conference, is widely admired for his CSR approaches at his companies. Generally, the adoption of electric vehicles, which help reduce pollutants, is viewed as a positive outcome. Musk has, however, come under scrutiny regarding comments about having secured financing to take Tesla private that raise compliance issues. (Credit: Steve Jurvetson/ flickr/ Attribution- 2.0 Generic (CC BY-ND 2.0))

Values can be powerful and motivating guides for individual, group, and organizational behavior. At the individual level, however, a reoccurring issue individuals seem to have with acting ethically is that many people do not consciously know or choose their values. We often act first and think or rationalize later. Secondly and relatedly, the methods and ways we act to reach our goals and objectives are also not always deliberately chosen. Consequently, many times we let the “ends justify the means” and/or “the means justify the ends” in our decisions and actions. **Ethical dilemmas** (i.e., situations and predicaments in which there is not an optimal or desired choice to be made between two options, neither of which solves an issue or delivers an opportunity that is ethical) often originate and occur from an unawareness of how to sort out and think through potential consequences of our actions or inaction. Becoming aware and conscious of our values is a first step toward being able to act ethically and responsibly in order to prevent or lessen harm to ourselves or others.

Toward this end, it is helpful to understand values that have been categorized as terminal and instrumental. **Terminal values** are desired goals, objectives, or end states that individuals wish to pursue. **Instrumental values** are preferred means of behavior used to obtain those goals. Examples of terminal values—at a higher level—are freedom, security, pleasure, social recognition, friendship, accomplishment, comfort, adventure, equality, wisdom, and happiness.¹³ Examples of instrumental values are being helpful, honest, courageous, independent, polite, responsible, capable, ambitious, loving, self-contained, and forgiving.¹⁴

Identifying and separating terminal from instrumental values in any given situation can assist individuals, groups, and work units in distinguishing between the “ends (goals) from the means (methods to reach the goals)” and vice versa in making decisions, thereby helping us choose more ethical options—or at least less unethical ones—in situations. For example, a sales manager has a goal of motivating his sales force to achieve individual sales performance levels at a 17% increase over current levels by the end of the calendar quarter. The means of doing so, according to the manager, are, “Go for it. Use your imagination and fortitude. Just make sure each of you reaches or exceeds that goal.” In this case, the terminal value is high achievement to the point of being overly ambitious in order to reach an aggressive financial goal. The instrumental value can also be described as aggressive achievement. Both the terminal and instrumental values in this scenario could very likely create undue pressure and even anxiety for some members of the sales force. The ethical logic underlying this example is to let the “end justify the means.” The scenario also raises the question of whether or not individuals in the sales force would choose the values underlying the instruction of the manager if each member identified and reflected on those values.

If the end (terminal) value creates undue pressures and is unrealistic and unobtainable, then the means (instrumental) value would likely create tension and unethical behavior as well. This example in some ways mirrors what actually recently happened at Wells Fargo & Company—an American international banking and financial services holding company headquartered in San Francisco. High pressure and unrealistic sales goals were adopted and implemented from the top down in that organization. A result was that members of that sales force lied, pressured, and misled loyal customers to buy bogus financial products to meet unrealistic sales

goals. Such actions when discovered led to and revealed illegal and unethical actions from not only the sales professionals but officers at the top of that organization. Ultimately, the CEO was pressured to resign, 5,300 employees were fired, and several lawsuits ensued.¹⁵

There are many lessons to take from the Wells Fargo fiasco. From an individual ethical perspective, one insight is to be aware of the underlying values of organizational and other job- and task-related directives issued. Another is to discover your own values and ethical principles that can guide you in work, study, and personal situations so that someone else's problems may not have to become yours. A helpful assessment for discovering your values is the PVA (Personal Values Assessment) found at <https://www.valuescentre.com/our-products/products-individuals/personal-values-assessment-pva>.

Caroucci found that “five ways organizations needlessly provoke good people to make unethical choices” are the following. (1) People feel psychologically unsafe to speak up. (2) Excessive pressure to reach unrealistic performance targets compromises people's choices. (3) When individuals face conflicting goals, they feel a sense of unfairness and compromise their reasoning. (4) Only talking about ethics when there is a scandal. (5) When there is no positive example available, individuals react instead of choose ethical decisions. Familiarizing yourself with ethical principles in the following section is another way of helping you think through complicated situations to make conscious, values-based decisions to do “the right thing.”¹⁶

? Concept Check

1. What are terminal and instrumental values
2. What are ways organizations can employ values to induce people to make ethical choices?

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5.3.4: Ethical Principles and Responsible Decision-Making

Learning Objectives

1. Understand the major ethical principles that can be used by individuals and organizations.

Before turning to organizational and systems levels of ethics, we discuss classical ethical principles that are very relevant now and on which decisions can be and are made by individuals, organizations, and other stakeholders who choose principled, responsible ways of acting toward others.¹⁷

Ethical principles are different from values in that the former are considered as rules that are more permanent, universal, and unchanging, whereas values are subjective, even personal, and can change with time. Principles help inform and influence values. Some of the principles presented here date back to Plato, Socrates, and even earlier to ancient religious groups. These principles can be, and are, used in combination; different principles are also used in different situations.¹⁸ The principles that we will cover are utilitarianism, universalism, rights/legal, justice, virtue, common good, and ethical relativism approaches. As you read these, ask yourself which principles characterize and underlie your own values, beliefs, behaviors, and actions. It is helpful to ask and if not clear, perhaps identify the principles, you most often use now and those you aspire to use more, and why. Using one or more of these principles and ethical approaches intentionally can also help you examine choices and options before making a decision or solving an ethical dilemma. Becoming familiar with these principles, then, can help inform your moral decision process and help you observe the principles that a team, workgroup, or organization that you now participate in or will be joining may be using. Using creativity is also important when examining difficult moral decisions when sometimes it may seem that there are two “right” ways to act in a situation or perhaps no way seems morally right, which may also signal that not taking an action at that time may be needed, unless taking no action produces worse results.

Utilitarianism: A Consequentialist, “Ends Justifies Means” Approach

The utilitarianism principle basically holds that an action is morally right if it produces the greatest good for the greatest number of people. An action is morally right if the net benefits over costs are greatest for all affected compared with the net benefits of all other possible choices. This, as with all these principles and approaches, is broad in nature and seemingly rather abstract. At the same time, each one has a logic. When we present the specifics and facts of a situation, this and the other principles begin to make sense, although judgement is still required.

Some limitations of this principle suggest that it does not consider individuals, and there is no agreement on the definition of “good for all concerned.” In addition, it is difficult to measure “costs and benefits.” This is one of the most widely used principles by corporations, institutions, nations, and individuals, given the limitations that accompany it. Use of this principle generally applies when resources are scarce, there is a conflict in priorities, and no clear choice meets everyone’s needs—that is, a zero-sum decision is imminent

Universalism: A Duty-Based Approach

Universalism is a principle that considers the welfare and risks of all parties when considering policy decisions and outcomes. Also needs of individuals involved in a decision are identified as well as the choices they have and the information they need to protect their welfare. This principle involves taking human beings, their needs, and their values seriously. It is not only a method to make a decision; it is a way of incorporating a humane consideration of and for individuals and groups when deciding a course of action. As some have asked, “What is a human life worth?”

Cooper, Santora, and Sarros wrote, “Universalism is the outward expression of leadership character and is made manifest by respectfulness for others, fairness, cooperativeness, compassion, spiritual respect, and humility.” Corporate leaders in the “World’s Most Ethical Companies” strive to set a “tone at the top” to exemplify and embody universal principles in their business practices.¹⁹ Howard Schultz, founder of Starbucks; cofounder Jim Sinegal at Costco; Sheryl Sandberg, chief operating officer of Facebook; and Ursula M. Burns, previous chairperson and CEO of Xerox have demonstrated setting effective ethical tones at the top of organizations.

Limitations here also show that using this principle may not always prove realistic or practical in all situations. In addition, using this principle can require sacrifice of human life—that is, giving one’s life to help or save others—which may seem contrary to the principle. The film *The Post*, based on fact, portrays how the daughter of the founder of the famed newspaper, the *Washington Post*,

inherited the role of CEO and was forced to make a decision between publishing a whistle-blowers' classified government documents of then top-level generals and officials or keep silent and protect the newspaper. The classified documents contained information proving that generals and other top-level government administrators were lying to the public about the actual status of the United States in the Vietnam War. Those documents revealed that there were doubts the war could be won while thousands of young Americans continued to die fighting. The dilemma for the Washington Post's then CEO centered on her having to choose between exposing the truth based on freedom of speech—which was the mission and foundation of the newspaper—or staying silent and suppressing the classified information. She chose, with the support of and pressure from her editorial staff, to release the classified documents to the public. The Supreme Court upheld her and her staff's decision. A result was enflamed widespread public protests from American youth and others. President Johnson was pressured to resign, Secretary of State McNamara later apologized, and the war eventually ended with U.S. troops withdrawing. So, universalist ethical principles may present difficulties when used in complex situations, but such principles can also save lives, protect the integrity of a nation, and stop meaningless destruction.

Rights: A Moral and Legal Entitlement–Based Approach

This principle is grounded in both legal and moral **rights**. Legal rights are entitlements that are limited to a particular legal system and jurisdiction. In the United States, the Constitution and Declaration of Independence are the basis for citizens' legal rights, for example, the right to life, liberty, and the pursuit of happiness and the right to freedom of speech. Moral (and human) rights, on the other hand, are universal and based on norms in every society, for example, the right not to be enslaved and the right to work.

To get a sense of individual rights in the workplace, log on to one of the “Best Companies to Work For” annual lists (<http://fortune.com/best-companies/>). Profiles of leaders and organizations' policies, practices, perks, diversity, compensation, and other statistics regarding employee welfare and benefits can be reviewed. The “World's Most Ethical Companies” also provides examples of workforce and workplace legal and moral rights. This principle, as with universalism, can always be used when individuals, groups, and nations are involved in decisions that may violate or harm such rights as life, liberty, the pursuit of happiness, and free speech.

Some limitations when using this principle are (1) it can be used to disguise and manipulate selfish and unjust political interests, (2) it is difficult to determine who deserves what when both parties are “right,” and (3) individuals can exaggerate certain entitlements at the expense of others. Still, the U.S. Constitution's Bill of Rights, ratified in 1791, was designed as and remains the foundation of, which is based on freedom and justice to protect the basic rights of all.

Justice: Procedures, Compensation, and Retribution

This principle has at least four major components that are based on the tenets that (1) all individuals should be treated equally; (2) **justice** is served when all persons have equal opportunities and advantages (through their positions and offices) to society's opportunities and burdens; (3) fair decision practices, procedures, and agreements among parties should be practiced; and (4) punishment is served to someone who has inflicted harm on another, and compensation is given to those for a past harm or injustice committed against them.

A simple way of summarizing this principle when examining a moral dilemma is to ask of a proposed action or decision: (1) Is it fair? (2) Is it right? (3) Who gets hurt? (4) Who has to pay for the consequences? (5) Do I/we want to assume responsibility for the consequences? It is interesting to reflect on how many corporate disasters and crises might have been prevented had the leaders and those involved taken such questions seriously before proceeding with decisions. For example, the following precautionary actions might have prevented the disaster: updating the equipment and machinery that failed in the BP and the *Exxon Valdez* oil crises and investment banks and lending institutions following rules not to sell subprime mortgages that could not and would not be paid, actions that led to the near collapse of the global economy.

Limitations when using this principle involve the question of who decides who is right and wrong and who has been harmed in complex situations. This is especially the case when facts are not available and there is no objective external jurisdiction of the state or federal government. In addition, we are sometimes faced with the question, “Who has the moral authority to punish to pay compensation to whom?” Still, as with the other principles discussed here, justice stands as a necessary and invaluable building block of democracies and freedom.

Virtue Ethics: Character-Based Virtues

Virtue ethics is based on character traits such as being truthful, practical wisdom, happiness, flourishing, and well-being. It focuses on the type of person we ought to be, not on specific actions that should be taken. Grounded in good character, motives, and core values, the principle is best exemplified by those whose examples show the virtues to be emulated.

Basically, the possessor of good character is moral, acts morally, feels good, is happy, and flourishes. Altruism is also part of character-based virtue ethics. Practical wisdom, however, is often required to be virtuous.

This principle is related to universalism. Many leaders' character and actions serve as examples of how character-based virtues work. For example, the famous Warren Buffett stands as an icon of good character who demonstrates trustworthy values and practical wisdom. Applying this principle is related to a "quick test" before acting or making a decision by asking, "What would my 'best self' do in this situation?" Others ask the question inserting someone they know or honor highly.

There are some limitations to this ethic. First, some individuals may disagree about who is virtuous in different situations and therefore would refuse to use that person's character as a principle. Also, the issue arises, "Who defines *virtuous*, especially when a complex act or incident is involved that requires factual information and objective criteria to resolve?"

The Common Good

The common good is defined as "the sum of those conditions of social life which allow social groups and their individual members relatively thorough and ready access to their own fulfillment." Decision makers must take into consideration the intent as well as the effects of their actions and decisions on the broader society and the common good of the many.²⁰

Identifying and basing decisions on the common good requires us to make goals and take actions that take others, beyond ourselves and our self-interest, into account. Applying the common good principle can also be asked by a simple question: "How will this decision or action affect the broader physical, cultural, and social environment in which I, my family, my friends, and others have to live, breathe, and thrive in now, next week, and beyond?"

A major limitation when using this principle is, "Who determines what the common good is in situations where two or more parties differ over whose interests are violated?" In individualistic and capitalist societies, it is difficult in many cases for individuals to give up their interests and tangible goods for what may not benefit them or may even deprive them.

Ethical Relativism: A Self-Interest Approach

Ethical relativism is really not a "principle" to be followed or modeled. It is an orientation that many use quite frequently. Ethical relativism holds that people set their own moral standards for judging their actions. Only the individual's self-interest and values are relevant for judging his or her behavior. Moreover, moral standards, according to this principle, vary from one culture to another. "When in Rome, do as the Romans do."

Obvious limitations of relativism include following one's blind spots or self-interests that can interfere with facts and reality. Followers of this principle can become absolutists and "true believers"—many times believing and following their own ideology and beliefs. Countries and cultures that follow this orientation can result in dictatorships and absolutist regimes that practice different forms of slavery and abuse to large numbers of people. For example, South Africa's all-white National Party and government after 1948 implemented and enforced a policy of apartheid that consisted of racial segregation. That policy lasted until the 1990s, when several parties negotiated its demise—with the help of Nelson Mandela (www.history.com/topics/apartheid). Until that time, international firms doing business in South Africa were expected to abide by the apartheid policy and its underlying values. Many companies in the United States, Europe, and elsewhere were pressured in the 1980s and before by public interest groups whether or not to continue doing business or leave South Africa.

At the individual level, then, principles and values offer a source of stability and self-control while also affecting job satisfaction and performance. At the organizational level, principled and values-based leadership influences cultures that inspire and motivate ethical behavior and performance. The following section discusses how ethical leadership at the top and throughout organizations affects ethical actions and behaviors.²¹

? Concept Check

1. What are some ethical guidelines individuals and organizations can use to make ethical choices?
2. Can being aware of the actual values you use to guide your actions make a difference in your choices?

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5.3.5: Leadership- Ethics at the Organizational Level

Learning Objectives

1. Understand the importance of ethical leadership in organizations.

Organizational leadership is an important first step toward identifying and enacting purpose and ethical values that are central to internal alignment, external market effectiveness, and responsibility toward stakeholders.²² The scholar Chester Barnard defined a values-based leadership approach in 1939 as one that inspires “cooperative personal decisions by creating faith in common understanding, faith in the probability of success, faith in the ultimate satisfaction of personal motives, and faith in the integrity of common purpose.”²³ Exhibit 5.4 illustrates how vision, mission, and values are foundational in guiding the identification and implementation of the strategic and operational questions and alignment of an organization—which is a major part of leadership.

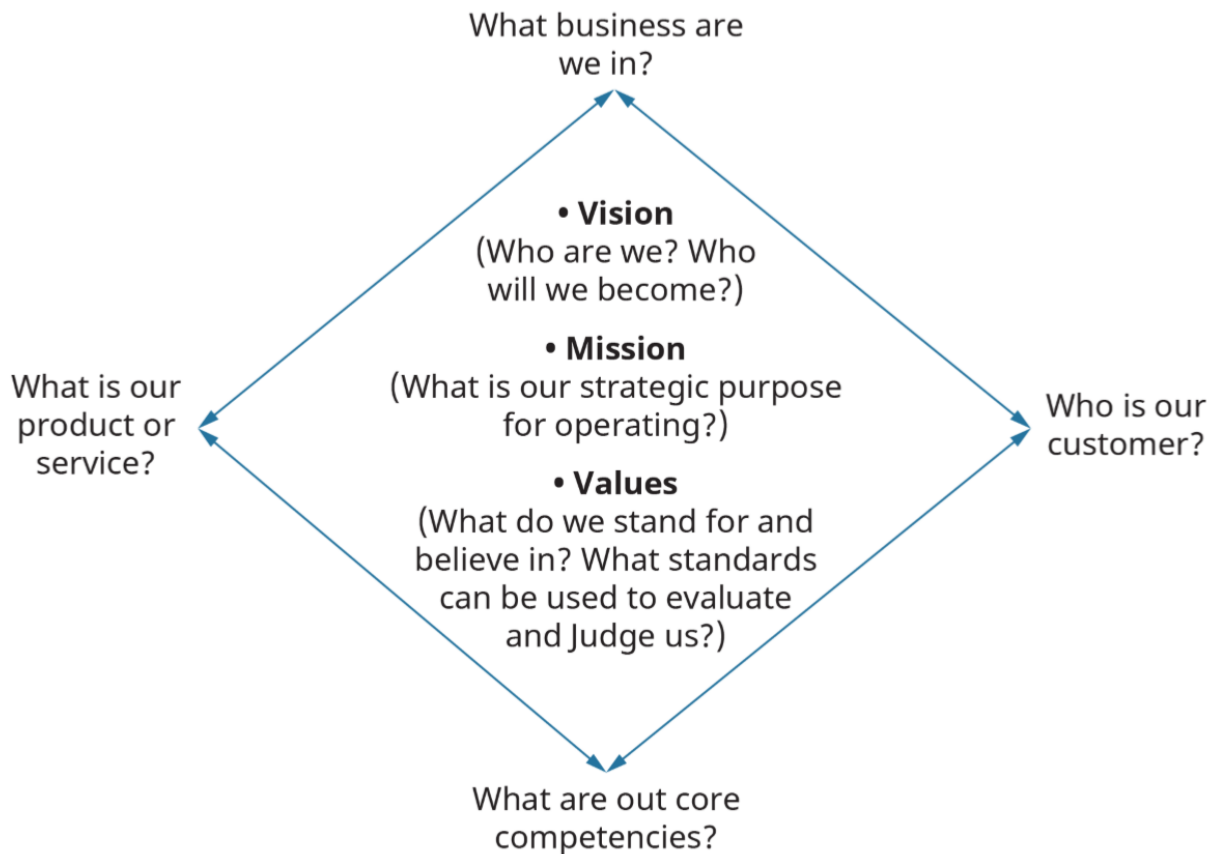


Exhibit 5.4 Strategic Organizational Alignment Source: Joseph W. Weiss. © 2014.

Leadership is defined as the ability to influence followers to achieve common goals through shared purposes.²⁴ Organizational leaders are responsible to a wide range of stakeholders and stockholders as well as employees toward meeting the goals for the organization. How responsibly and ethically they choose to do so depends on a number of factors. From an ethical and related effectiveness perspective, the leader’s values count since these generally become the values of an organization. A leader’s influence is referred to as “the tone at the top.” While a leader’s values should align to those of the organization, its vision and mission, this is not always the case, as we know from the crises discussed earlier when referring to the classical failures at Enron, Tyco, WorldCom, Wells Fargo, and other notable companies.

Since leadership is a most important element in forming and directing an organization’s strategy, culture, and governance system, it is often a shared responsibility among other officers and followers that cascades throughout the organization. As an example, the widely acknowledged Ethisphere, a private firm that evaluates firms’ ethical behavior and responsibilities, uses five criteria that produce a single Ethics Quotient (EQ) score. The first is a company’s ethics and compliance program, which accounts for 35% of the EQ. The second criterion is whether or not and the extent to which ethics is embedded into a company’s culture. The third

element is corporate citizenship and responsibility, elements that measure companies' environmental impact. The fourth component is corporate governance—whether a firm's CEO and board chair are held by one or separate people. An increased focus recently emphasized diversity in board and leadership positions. The fifth criterion is leadership, innovation, and reputation.²⁵

There were, according to Ephisphere, 124 honorees in 2017, spanning 5 continents, 19 countries, and 52 industry sectors. Among the 2017 list are 13 eleven-time honorees and 8 first-time honorees. Honorees include

“companies who recognize their role in society to influence and drive positive change in the business community and societies around the world. These companies also consider the impact of their actions on their employees, investors, customers and other key stakeholders and leverage values and a culture of integrity as the underpinnings to the decisions they make each day.”²⁶ The top 10 most ethical companies in 2017 as measured by Ethisphere's criteria are shown below in Table 5.1.

World's Most Ethical Companies Honorees

Company	Industry	Country
3M Company	Industrial Manufacturing	USA
Accenture	Consulting Services	Ireland
Aflac Incorporated	Accident & Life Insurance	USA
Allstate Insurance Company	Property & Casualty Insurance	USA
Alyeska Pipeline Service Co.	Oil & Gas, Renewables	USA
Applied Materials, Inc.	Electronics & Semiconductors	USA
Arthur J. Gallagher & Co.	Insurance Brokers	USA
Avent Inc.	Electronics & Semiconductors	USA
Baptist Health South Florida	Healthcare Providers	USA

Source: Adapted from Ephisphere, 2017, <https://www.worldsmoethicalcompanies.com/honorees/>

Table 5.1

For ethical leaders, authenticity and integrity, in addition to their values, are also important components of character and behavior that must also be translated into attitude and action toward followers, external stakeholders, and broader communities. Leaders have a responsibility to show respect toward others, treat all stakeholders fairly, work toward a common good, build community, and be honest. These virtue-related values, also referred to as character-related, as discussed earlier, help create an ethical corporation and environment:

Show Respect for Others

Respecting others requires leaders to recognize the intrinsic worth of others and forces them to treat people as ends in themselves—never as means to an end. In other words, people should be seen as valuable because of who they are (a universal principle), not only because of what they can do for others or how they can help others advance. Showing respect for others includes tolerating individual differences and affording followers the freedom to think independently, act as individuals, and pursue their own goals. When a leader shows respect for followers by providing them autonomy, subordinates can feel more useful, valued, and confident. Such a situation often leads to greater loyalty and productivity among subordinates.

Treat All Stakeholders Fairly

Ethical leaders strive to treat everyone their decisions may affect in a fair and just manner. Equality is also a top priority for ethical leaders and needs to factor prominently into their decision-making. Ethical leaders must refrain from offering special treatment to others; failure to do so creates winners and losers—in-groups and out-groups—and can breed resentment between those who receive special treatment and those who do not. The only exception occurs when an individual's specific situation warrants special treatment in order for a just outcome to be realized.

Preventing winners and losers from emerging is not always easy. Some situations require the distribution of benefits and burdens, and such situations can test a leader's ability to ensure that justice is achieved. Beauchamp and Bowie defined the common principles that guide leaders facing such dilemmas; their findings can help leaders allocate responsibilities fairly and justly.²⁷ These principles stipulate that every person must receive an equal share of opportunity according to his needs, rights, effort, societal contributions, and performance.

Work Toward a Common Good

Mahatma Gandhi offers an example of what striving toward a common good entails. Known for his commitment to nonviolent protests and mass civil disobedience, the Indian activist and ideological leader spent 20 years in South Africa opposing legislation that discriminated against Indians. He spent the remainder of his life in India fighting for independence from foreign rule and working to reduce poverty and taxation, liberate women, and end multiple forms of discrimination.²⁸ He championed such causes not because he would personally benefit, but because a larger, more substantial population would. Gandhi devoted his life to furthering social causes he believed in and developed a personal sense of purpose and meaning that later translated into a societal and then global ethic.

Ethical leaders strive to further social or institutional goals that are greater than the goals of the individual. This responsibility requires the ethical leader to serve a greater good by attending to the needs of others. This type of behavior is an example of altruism: a steadfast devotion to improving the welfare of others. Altruistic behavior may manifest in a corporate setting through actions such as mentoring, empowerment behaviors (encouraging and enabling others), team building, and citizenship behaviors (such as showing concern for others' welfare), to name a few.

Build Community

Whole Foods Market, recently purchased by Amazon, is well known for its community outreach programs on both local and global scales. Every Whole Foods store donates to community food banks and shelters and throughout the year holds "5% days," when 5% of the day's net sales are donated to local nonprofit or educational organizations. Globally, the company established the Whole Planet Foundation to combat world hunger and supports programs addressing issues such as animal welfare, nutrition, and environmentally friendly production methods.

The effort of Whole Foods to strengthen its stores' local and global neighborhoods is a perfect example of leaders building community. When an ethical leader focuses on the needs of others rather than the self, other people will often follow suit. This can lead to a strong contingent of followers working with the leader to achieve a common goal that is compatible with the desires of all stakeholders. Furthering a common goal means that no one can place his needs ahead of the group's goals and an ethical leader cannot impose his will on others. A successful CEO who works with many charities or other individuals to feed the homeless exemplifies a leader building community.

Be Honest

Honesty is considered desirable by practically everyone, but it is sometimes unclear what honesty actually demands of us. Being honest is not simply telling the truth and avoiding deceitful behaviors; it requires leaders to be as open as possible and to describe reality fully, accurately, and in sufficient detail. Telling the complete truth is not always the most desirable action, however. Leaders must be sensitive to the feelings and beliefs of others and must recognize that the appropriate level of openness and candor varies depending on the situation.

According to a recent survey, 58% of people internationally trust companies, but 42% are less sure. Being more transparent with customers, stakeholders, and stockholders should become a priority for leaders and boards of companies.²⁹ Dishonesty can be a disastrous practice for a leader. Dishonest leaders distort reality, which can lead to unfavorable outcomes for all stakeholders. Researchers Cialdini, Petia, Petrova, and Goldstein found that dishonest organizations suffer from tarnished reputations, decreased worker productivity, and various damages related to increased surveillance. They concluded that the costs of organizational dishonesty greatly outweigh any short-term gains from such behavior.³⁰



Exhibit 5.5 Cialdini Robert Cialdini and other researchers claim that dishonest organizations suffer from tarnished reputations, decreased worker productivity, and various damages related to increased surveillance. They concluded that the costs of organizational dishonesty greatly outweigh any short-term gains from such behavior. (Credit: Dave Dugdale/ flickr/ Attribution-ShareAlike 2.0 Generic (CC BY-SA 2.0))

Stewardship and Servant Leadership Styles

Effective leaders, and followers, who lead by example and demonstrate virtuous practices while demonstrating successful practices are more numerous than the media or press reveal. Such examples are also entrepreneurs who practice both stewardship and servant leadership. Their names are not always recognizable nationally, but their companies, communities, and stakeholders know them well. For example, Inc.com's recent 2017 list of top 10 leaders features four women CEOs who go beyond the "call of duty" to serve others while succeeding in business. For example, Brittany Merrill Underwood started and is CEO of Akola Jewelry and was named in Yahoo's "Best Person in the World" series in 2014. Her company "reinvests 100 percent of their profits to support work opportunities, training, social programs, and the construction of training centers and water wells in impoverished communities throughout the globe."³¹

A classic example of these leadership styles is also represented by Aaron Feuerstein, a previous CEO of a manufacturing plant in Massachusetts, whose example continues to represent both a steward and servant leadership style.³²

✓ Managerial Leadership

Servant Leadership Personified: Aaron Feuerstein at Malden Mills

Aaron Feuerstein, a third-generation owner of Malden Mills in Lawrence, Massachusetts, suffered his factory burning to the ground on December 11, 1995. Feuerstein had the option of using the insurance money to rebuild the plant, but he instead paid the salaries and complete benefits of all the 3,000 workers for 6 months while the factory was rebuilt. He later said that he had no other option than to help the employees. His action was based on his study of the Talmud, and he presented at Xavier University:

"I have the responsibility to the worker, both blue-collar and white-collar. I have an equal responsibility to the community. It would have been unconscionable to put 3,000 people on the streets and deliver a deathblow to the cities of Lawrence and Methuen. Maybe on paper our company is worthless to Wall Street, but I can tell you it's worth more."

Feuerstein exemplified the two ethical leadership styles of stewardship and servant leadership, which focus specifically on how leaders work with followers. (Ethical leadership as a whole concerns the leader's characteristics and encompasses actions in both the internal and external organizational environment.)

Source: Xavier University News and Events, “Former Malden Mills CEO Aaron Feuerstein speaking at Heroes of Professional Ethics event March 30”, March 24, 2009, https://www2.xavier.edu/campusuite25/modules/news.cfm?seo_file=Former-Malden-Mills-CEO-Aaron-Feuerstein-speaking-at-Heroes-of-Professional-Ethics-event-March-30&grp_id=1#.W6FLZPFyUk

Questions

1. How does Aaron Feuerstein exemplify servant leadership principles?
2. If Feuerstein had decided to use the insurance money for other purposes, would he have not been acting ethically?

Stewardship is concerned with empowering followers to make decisions and gain control over their work. **Servant leadership** involves selflessly working with followers to achieve shared goals that improve collective, rather than individual, welfare. There is a wealth of information on both of these styles. We will briefly address both here, as both involve treating followers with respect—a key component of ethical leadership—and endowing followers with the ability to grow both personally and professionally.

The stewardship approach instructs leaders to lead without dominating followers. Leaders who practice stewardship sincerely care about their followers and help them develop and accomplish individual as well as organizational goals. Effective stewardship breeds a team-oriented environment in which everyone works together. Organizations led by steward leaders are marked by decentralized decision-making—that is, leadership is not centered in one person, group, department, or administrative unity; power is distributed among all stakeholders.³³

The servant-leadership approach was formulated by Robert K. Greenleaf, who believed that leadership is a natural corollary of service. Servant leadership goes beyond stewardship by requiring leaders to eschew personal accolades and devote themselves entirely to a greater cause. Greenleaf stated, “The essential quality that separates servant leaders from others is that they live by their conscience—the inward moral sense of what is right and wrong. That one quality is the difference between leadership that *works* and leadership—like servant leadership—that endures.” The following aspects are central to servant leadership:

1. Placing service before self-interest. The servant leader’s primary concern is helping others, not receiving recognition or financial reward.
2. Listening to others. Servant leaders recognize the importance of listening to the ideas and concerns of stakeholders; they never attempt to impose their will on others. This aspect allows servant leaders to strengthen relationships, understand group needs and dynamics, and effectively allocate resources to improve the group’s welfare.
3. Inspiring through trust. As we discussed earlier, ethical leaders must be trustworthy. It does not take much effort for servant leaders to be truthful because they usually have strong moral convictions.
4. Working toward feasible goals. Servant leaders realize that many problems cannot be solved by one person. They also tackle the most pressing issues facing their groups.
5. Helping others whenever possible. Servant leaders lend a helping hand when the opportunity arises. An example is the district manager of a fast-food chain who helps part-time employees flip burgers during a lunchtime rush hour. Another is the director of a business unit who observes that a team is short a member and needs help in meeting a deadline; the director joins the team for the afternoon to help meet the deadline.³⁴

Another way of understanding the distinguishing characteristics of servant leadership is offered by DeGraaf, Tilley, and Neal:

The main assumption is that true leadership should call us to serve a higher purpose, something beyond ourselves. One of the most important aspects of leadership is helping organizations and staff identify their higher purpose. The best test of the servant-leadership philosophy is whether or not customers and staff grow as persons! Do customers become healthier, wiser, freer, more autonomous, more likely themselves to become “servants”? And, what is the effect on the least privileged in society? Will they benefit? Or, at least, not be further deprived? To achieve this higher purpose of public organizations, you, as a leader, must be passionate about your desire to improve your community and yourself!³⁵

Dark Side of Organizational Leadership

However, and as noted earlier, not all leaders lead or model high standards or values. Seven symptoms of the failure of ethical leadership provide a practical lens to examine a leader’s shortsightedness:³⁶

1. Ethical blindness: They do not perceive ethical issues due to inattention or inability.
2. Ethical muteness: They do not have or use ethical language or principles. They “talk the talk” but do not “walk the talk” on values.

3. Ethical incoherence: They are not able to see inconsistencies among values they say they follow; e.g., they say they value responsibility but reward performance based only on numbers.
4. Ethical paralysis: They are unable to act on their values from lack of knowledge or fear of the consequences of their actions.
5. Ethical hypocrisy: They are not committed to their espoused values. They delegate things they are unwilling or unable to do themselves.
6. Ethical schizophrenia: They do not have a set of coherent values; they act one way at work and another way at home.
7. Ethical complacency: They believe they can do no wrong because of who they are. They believe they are immune.

Examples of highly unethical recent leaders and their dark side leadership practices are described in Fortune's "World's 19 Most Disappointing Leaders." Two illustrations are summarized here. Martin Winterkorn, the former chairman of Volkswagen, who led VW during "a disastrous scandal (which is far from over), as company engineers installed software that manipulated emissions on about 11 million diesel vehicles. Winterkorn has asserted ignorance of any wrongdoing." He is also known as being a micromanager who formed a ruthless culture that emphasized winning over all else. Then there was Rick Snyder, governor of Michigan, who "left the impoverished city of Flint, Mich. with a lead-tainted water supply that is being blamed for illness and brain damage, especially among its youngest residents." Snyder also blamed "failure of government" and the Environmental Protection Agency for its "dumb and dangerous" rules permitting dangerous amounts of lead in the water systems.

A major takeaway from both the outstanding and undesirable ethical leadership examples presented here is that organizational culture counts and that without an ethical culture both poor and exemplary moral leadership decisions flourish.³⁷

? Concept Check

1. What role does leadership play in how ethically organizations and its members act and perform?
2. Explain what stewardship is and the role of servant leadership.

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5.3.6: Ethics, Corporate Culture, and Compliance

Learning Objectives

1. Understand the differences between values-based ethics and compliance in organizations.

An organization’s culture is defined by the shared values and meanings its members hold in common and that are articulated and practiced by an organization’s leaders. Purpose, embodied in corporate culture, is embedded in and helps define organizations. Ed Schein, one of the most influential experts on culture, also defined organizational **corporate culture** as “a pattern of shared tacit assumptions learned or developed by a group as it solves its problems of external adaptation and internal integration that have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.”³⁸

As Exhibit 5.6 illustrates, culture plays an important integrating role in organizations both externally and internally. Strategy, structure, people, and systems all are affected by an organization’s culture, which has been referred to as the “glue” that holds an organization together.³⁹

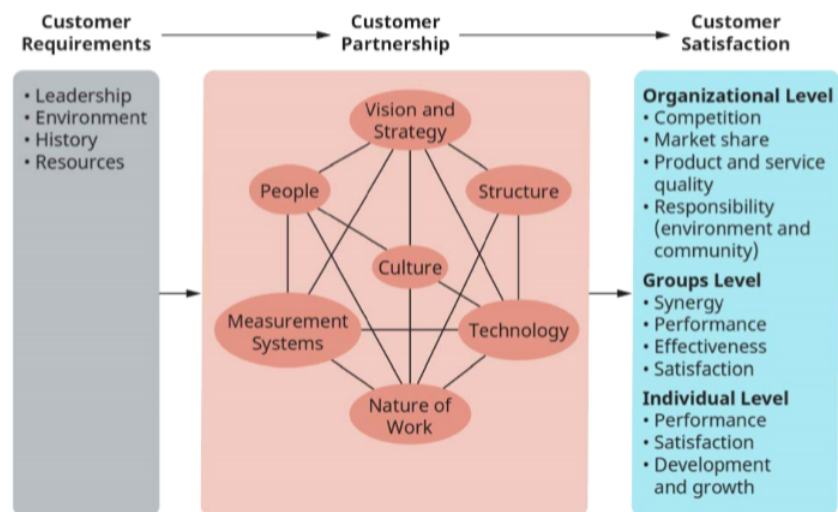


Exhibit 5.6 Role of Culture in Organizational Alignment (Attribution: Copyright Rice University, OpenStax, under CC-BY 4.0 license)

Leadership, in particular, as stated earlier, exerts a powerful influence, along with other factors, on culture. Schein noted that “culture and leadership are two sides of the same coin and one cannot understand one without the other.”⁴⁰ Culture is transmitted through and by (1) the values and styles that leaders espouse and practice, (2) the heroes and heroines that the company rewards and holds up as models, (3) the rites and symbols that organizations value, and (4) the way that organizational executives and members communicate among themselves and with their stakeholders. Heskett argues that culture “can account for 20–30% of the differential in corporate performance when compared with ‘culturally unremarkable’ competitors.”⁴¹

While subcultures develop in organizations, the larger organization’s culture influences these, especially with strong leaders and leadership teams who set the tone at the top and communicate expectations and performance standards throughout. Other factors that indicate and help create a strong ethical culture include the following, which are based on the reputable assessment firm Ethisphere’s experience.⁴²

An organization models and communicates compliance standards through its values; employees are informed of and familiar with the assets and efforts of the compliance and ethics function.

- The culture sets “enduring and underlying assumptions and norms that determine how things are actually done in the organization.”⁴³
- “Organizations can effectively identify specific locations, business units, job levels and job functions that may lack a full understanding of available resources, feel unwanted pressure, or perhaps hold negative perceptions.”
- Companies and investors believe a company behaves and acts ethically.
- Employees are aware of the conduct, values, and communications of senior leaders.

- Employees are engaged and committed, and organizations regularly survey employees to get a sense of their engagement.
- Employees feel “less pressure to compromise company standards to achieve company goals. And if they do observe misconduct, they are more likely to feel comfortable reporting it.”
- “Employees perceive the ethical priorities of their coworkers, the values of their organization and willingness to share opinions.”⁴⁴

Compliance and Ethics

As the section above indicates, both a values-based and compliance approach are necessary elements of maintaining an ethical corporate culture. Ethics has been characterized as “doing the right thing” and serving as a motivational force that influences professionals’ values—resembling a “carrot” approach to professionals’ behaviors. Compliance is related to influencing behaviors to act in accordance to the law or face consequences—referred to as a “stick” approach. Studies show that ethical and compliance approaches are interrelated and work best to motivate and sustain lawful and ethical behavior in organizations.⁴⁵

One law in particular set a new baseline of accountability for CEOs and CFOs (chief financial officers): the federal Sarbanes-Oxley Act of 2002, 2010. This law was the first following the Enron scandal and other corporate scandals that placed constraints and issued punitive measures on CEOs and CFOs who could be punished if they knowingly and willingly committed fraud and other crimes. Several new sections of that law also signaled a change in corporate leaders’ responsibilities and liabilities; for example, the law “[e]stablishes an independent public company accounting board to oversee audits of public companies; requires one member of the audit committee to be an expert in finance; requires full disclosure to stockholders of complex financial transactions; requires CEOs and CFOs to certify in writing the validity of their companies’ financial statements. If they knowingly certify false statements, they can go to prison for 20 years and be fined \$5 million; -Prohibits accounting firms from offering other services, like consulting, while also performing audits” (Federal Sentencing Guidelines, 2004). There are other parts of this law that that further establish compliance regulations.⁴⁶

Because of the widespread corporate scandals discussed at the beginning of the chapter, the U.S. Congress implemented legal and compliance standards to curb and discourage illegal activities in corporations. While self-regulation will always play a major role in corporations’ “doing the right thing,” compliance has proven to be a necessary but not always sufficient element of corporate governance. Ethics continues to complement compliance, especially since the law cannot, does not, and will not cover every aspect of potentially harmful behaviors. Ethical dimensions and practices such as transparency, privacy, honesty, objectivity, integrity, carefulness, openness, respect for intellectual property, civility, confidentiality, accountability, responsible mentoring, and respect for colleagues are all necessary to motivate organizational behavior.

Ethical values become “actionable” in corporations by corporations first becoming aware of and then assuming responsibility for the corporation’s duties toward its stakeholders and stockholders. Social responsibility as a concept originated in 1953 when Howard R. Bowen, known as the “father of corporate social responsibility” (CSR), referred in a book to the “Social Responsibilities of the Businessman.”⁴⁷

? Concept Check

1. In what ways do law and compliance complement ethics in organizations?
2. How does stakeholder management differ from stockholder management?

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5.3.7: Corporate Social Responsibility (CSR)

Learning Objectives

1. Understand the value that CSR (corporate social responsibility) programs offer to organizations and society.

CSR contributes to another form of self-regulation that goes further and involves firms taking action to help people and the environment. CSR is described as “a belief that corporations have a social responsibility beyond pure profit.” In other words, “Firms are social entities, and so they should play a role in the social issues of the day. They should take seriously their ‘obligations to society’ and actively try to fulfill them.”⁴⁸ As such, corporations should employ a decision-making process to achieve more than financial success on the assumption that CSR is integral to an optimum long-term strategy.

In the 21st century, sustainability and corporate social responsibility (CSR) have become strategic imperatives for organizations as fundamental market forces for financial viability and success, where consumers are important stakeholders. Businesses worldwide develop CSR initiatives to become better corporate citizens but also to communicate their activity to both internal and external stakeholders, which may involve a number of groups.

A study by Horizon Media’s Finger on the Pulse found that “81 percent of Millennials expect companies to make a public commitment to good corporate citizenship.”⁴⁹ The 2015 Cone Communications Millennial CSR Study found that “[m]ore than nine-in-10 Millennials would switch brands to one associated with a cause (91% vs. 85% U.S. average), and two-thirds use social media to engage around CSR (66% vs. 53% U.S. average).”⁵⁰

The 3 P’s (profit, the people, and the planet), or “the triple bottom line” (TBL), is another concept (closely related to and reflective of the mission of CSR and firm activities).⁵¹ TBL—also known as 3BL—incorporates and assists businesses measure accountability in their funding of and support for social, environmental (ecological), and financial benefits to allow for a greater good. Many corporations have started to add triple bottom line metrics to their business plans in order to evaluate their overall performance and reflect on how companies are contributing to society. A small sample of contemporary CSR initiatives make a difference. For example:

- The GE Foundation gave \$88 million to community and educational programs in 2016.
- The 3MGives corporation funded \$67 million in 2016 to focus on community and the environment, along with educational initiatives boosting student interest in science and technology.
- Apple was named by the environmental organization Greenpeace as the “greenest tech company in the world” for over three years because that firm’s packaging is manufactured with 99 percent recycled paper products.
- Walt Disney Company’s social mission to strengthen communities states that “by providing hope, happiness, and comfort to kids and families who need it most”. The Walt Disney Company donated more than \$400 million to nonprofit organizations in 2016.
- Virgin Atlantic’s “Change is in the Air” sustainability initiative states its mission as: “Environment, sustainable design and buying, and community investment.” This firm has since 2007 “reduced total aircraft carbon emissions by 22% and [has] partnered with LanzaTech to develop low carbon fuels for the future. Virgin Holidays donates £200,000 annually to the Brandon Center for Entrepreneurship Caribbean to support young entrepreneurs in Jamaica.”⁵²



Exhibit 5.7 Hasbro relies heavily on its strategic brand blueprint to guide its efforts in CSR, innovation, philanthropy, and product development. With a business portfolio that includes such well-known brands as Nerf, Play-Doh, Transformers, and Mr. Potato Head, the company focuses its CSR efforts on four key areas: product safety, environmental sustainability, human rights and ethical sourcing, and community. Here one of its products is featured at the Thanksgiving Day parade in New York City. (Credit: rowenphotography/ flickr/ NoDerivs 2.0 Generic (CC BY-ND 2.0))

Even with the current 2017 U.S. government’s executive branch and Congress backing out of international climate change agreements to expand and promote fossil fuel production, taking actions to disable the EPA (Environmental Protection Agency), and not funding the Consumer Financial Protection Bureau, many corporations continue practicing CSR and 3BL principles to support sustainable environmental goals and objectives.⁵³

While CSR is not a cure-all that can or will significantly make a difference in ushering in more sustainable environmental practices, help alleviate poverty, and use profits to help lower-income communities, it contributes to both internal and external stakeholder awareness to “do the right thing.” For example, Teng and Yazdanifard argue and present evidence that some consumers do take CSR into account while making purchase decision. Also, CSR initiatives and actions have been shown to positively influence both internal and external stakeholders.⁵⁴ A study conducted in New Zealand explored the perceptions of internal stakeholders of New Zealand companies to discover the way in which the CSR, sustainability cultures, and identity are communicated internally. It was found that employee behaviors matter, as organizations that are well regarded in the community attract greater external loyalty, have more stable revenues, and face fewer crisis risks. A positive relationship with staff in organizations through CSR policies will not only attract better employees, it will also influence the morale, motivation, and loyalty of existing staff. The effective delivery of CSR initiatives also depends on how responsive employees are. If companies wish to achieve legitimacy by operating within a society’s ethical expectations, they must also communicate internally to ensure that CSR activities are integrated into the organizational culture—they cannot “talk the talk” without “walking the walk.”⁵⁵

So, does CSR benefit the companies that practice such measures? A meta-analysis of 52 studies with a sample size of 33,878 observations suggested that “corporate virtue in the form of social responsibility and, to a lesser extent, environmental responsibility, is likely to pay off. . . . CSP [corporate social performance] appears to be more highly correlated with accounting-based measures of CFP [corporate financial performance] than with market-based indicators, and CSP reputation indices are more highly correlated with CFP than are other indicators of CSP” . Many business scholars do believe that some of these relationships are positive.⁵⁶ Robbins concludes that “[o]n balance, surveys and the research literature suggest that what most executives believe intuitively, that CSR can improve profits, is possible. And almost no large public company today would want to be seen unengaged in CSR. That is clear admission of how important CSR might be to their bottom line, no matter how difficult it may be to define CSR and link it to profits.”⁵⁷

Without exception, the managers articulated the importance of communicating CSR initiatives and policy to their employees, as well as recognizing the need to improve their CSR internal communication strategies. According to the managers, CSR initiatives

are promoted to create better corporations and a more ethical business environment. These included recycling, carpooling, staff development, and social activities. External initiatives included volunteering, fund-raising, and charitable donations.

Stakeholder Management

CSR and **stakeholder management** are complementary approaches. Stakeholder theory argues that corporations should treat all their constituencies fairly and that doing so can strengthen companies' reputations, customer relations, and performance in the marketplace.⁵⁸ "If organizations want to be effective, they will pay attention to all and only those relationships that can affect or be affected by the achievement of the organization's purposes."⁵⁹

The ethical dimension of stakeholder theory is based on the view that profit maximization is constrained by justice, that regard for individual rights should be extended to all constituencies who have a stake in a business, and that organizations are not only "economic" in nature but can also act in socially responsible ways. To this end, companies should act in socially responsible ways, not only because it's the "right thing to do," but also to ensure their legitimacy.⁶⁰

A stakeholder management approach first involves identifying the stakeholders of a company. A **stakeholder** is any group or individual who can affect or is affected by an organization's strategies, major transactions, and activities. Stakeholders include employees, suppliers, customers, shareholders, the government, media, and others. An illustration of the stakeholder relationships is provided in Exhibit 5.8. The term stakeholder has become commonplace in organizations. Companies and organizations that base their strategic decisions on the principle of duty to earn stakeholder trust "are likely to yield a number of strategic benefits, too, and can help manage political, social, and reputational risk."⁶¹



Exhibit 5.8 Stakeholder Map Source: Freeman, R. Edward. (1984). Strategic management: A Stakeholder approach, 25. Boston: Pitman. Reproduced with permission of the author.

Identifying and Influencing Major Stakeholders

There are several methods for analyzing stakeholder transactions and relationships with an organization that go beyond the purpose of this chapter.⁶² Using an ethical perspective, a goal of this approach is for organizations to employ values of transparency,

fairness, and consideration of stakeholder interests in strategic decisions and transactions. Toward that end, the following questions can be used from Exhibit 5.8.

1. Who are the stakeholders (that is, people who have an interest in supporting or resisting a proposed course of action, resolving an issue, and addressing a change)?
2. What are their stakes in either supporting or resisting the change?
3. What do the supporters stand to gain and lose from the change?
4. What do the resisters stand to gain and lose from the change?
5. What type(s) of power do the supporters have with regard to the change?
6. What type(s) of power do the resisters have with regard to the change?
7. What strategies can we use to keep the support of the supporters?
8. What strategies can we use to neutralize or win over the resisters?

Based on this approach, an organization's leaders and officers inform, involve, obtain feedback from, and influence each of their stakeholders with regard to strategy, issues, or opportunities the organization pursues. The Coca-Cola Company uses an ongoing stakeholder approach that is described on this site: www.coca-colacompany.com/stor...der-engagement.

Had BP followed this approach in 2010, the now largest oil spill and rig explosion crisis in the history of such operations that occurred in the Gulf of Mexico, killing 11 workers and damaging over 600 square miles of land and sea, might have been prevented. It appeared that the leadership and culture at BP had been lax and out of touch with its stakeholders—and stockholders. As a consequence, the machinery and equipment were dated and not optimally functioning. One consequence is that employees, workers, communities, and the public may not have suffered that crisis and the continuing after effects.

CSR and stakeholder management have demonstrated benefits to firms' reputations and profitability.⁶³ The relationship of an organization's ethics and social responsibility to its performance concerns both managers and organization scholars. Studies have shown a positive relationship between ethical and socially responsible behavior and financial results. For example, one study of the financial performance of large U.S. corporations that are considered "best corporate citizens" found that they have both superior reputations and superior financial performance.⁶⁴ Similarly, Governance Metrics International, an independent corporate governance ratings agency, found that the stocks of companies run on more selfless principles perform better than those run in a self-serving manner. Top-ranked companies such as Pfizer, Johnson Controls, and Sunoco also outperformed lower-ranking firms on measures such as return on assets, return on investment, and return on capital.⁶⁵

? Concept Check

1. How do sustainable business practices benefit consumers?
2. Differentiate the roles compliance and CSR programs serve in organizations. Are these the same, or are there differences? Explain.

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5.3.8: Ethics around the Globe

Learning Objectives

1. What are ethical issues we encounter in the global environment?

Organizations operating on a global basis often face particularly tough ethical challenges because of various cultural, political, economic, technological, and market factors. The greater the complexity of the environment, the greater the potential for ethical problems and misunderstandings for global organizations.⁶⁶ “Think ... of the ethical value systems that shape behavior within and between countries, and the unpredictability that can result when there is a re-evaluation of what is acceptable and unacceptable.” Recent and reoccurring global ethical problems and risks that organizations face include cybersecurity and political threats, international conflict and warfare, income inequality, planetary climate and environmental pollution and instability, corruption, and human and diversity rights violations. Exhibit 5.9 illustrates the wide range of stakeholders and issues related to several of the risks in this figure that MNEs (multinational enterprises) must either prevent from occurring or manage when doing business across and within different country borders.



Exhibit 5.9 MNE Global Stakeholder Management Issues and Ethical Concerns Source: Copyright © Joseph W. Weiss, Bentley University, Waltham, MA. 2014.

Following laws related to doing business abroad is an added challenge for global firms. For example, the FCPA (Foreign Corrupt Practices Act) prohibits American firms from accepting or offering bribes to foreign government officials. U.S. individuals who cannot defend their actions with regard to the FCPA's antibribery provisions can face harsh penalties. “U.S. companies can be fined up to \$2 million while U.S. individuals (including officers and directors of companies that have willfully violated the FCPA) can be fined up to \$100,000 and imprisoned for up to five years, or both. In addition, civil penalties may be imposed.”⁶⁷ Recently, the U.S. Department of Justice (DOJ) and the Securities and Exchange Commission (SEC) have been more aggressive in enforcing and

prosecuting the bribery section of the FCPA. Halliburton Company in 2017 paid the SEC \$29.2 million for bribing a friend of an official in Angola to negotiate a seven oil-field services contracts. The result was a disgorgement fine (i.e., a repayment of illegal gains with penalties imposed on wrongdoers by the courts) for violating the FCPA's records and internal accounting controls provisions.⁶⁸

U.S.-based firms are also expected to not engage in unethical or illegal activities such as discriminating against local populations, violating local laws and norms, and disrespecting property and the environment. MNEs can also assist and add value to local countries. For example, the following practices are encouraged:

- Hiring local labor
- Creating new jobs
- Co-venturing with local entrepreneurs and companies
- Attracting local capital to projects
- Providing for and enhancing technology transfer
- Developing particular industry sectors
- Providing business learning and skills
- Increasing industrial output and productivity
- Helping decrease the country's debt and improve its balance of payments and standard of living.⁶⁹

Globalization

The increasing phenomenon of globalization (an integrated global economy consisting of free trade, capital flows, and cheaper foreign labor markets)⁷⁰ also pressures global firms facing international risks to rely on governments, NGOs (nongovernmental organizations), the UN (United Nations), and other business and stakeholder alliances and relationships to help meet nonmarket threats. For example, the ten principles of the UN Global Compact serve as guidelines for international firms doing business in LDCs (least developed countries), and abroad, businesses should (1) support and respect the protection of internationally proclaimed human rights, (2) ensure that they are not complicit in human rights abuses, (3) uphold the freedom of association and the effective recognition of the right to collective bargaining, (4) eliminate of all forms of forced and compulsory labor, (5) abolish child labor, (6) eliminate the discrimination of employment and occupation, (7) support a precautionary approach to environmental challenges, (8) promote greater environmental responsibility through initiatives, (9) encourage the development and diffusion of environmentally friendly technologies, and (10) work against corruption, including extortion and bribery.⁷¹

While these principles may seem so universal as to be unattainable, they do stand as ethical milestones that protect human life, dignity, and personal welfare and values. However, when companies operate in LDCs and other cultures, it often is necessary to negotiate a balance between fairness, equality, and different local values and standards. U.S. and Western values may differ with local cultural norms, such as child labor and employee rights, in many countries. Donaldson and Dunfee offer methods for such negotiations.⁷² A classic example was Levi Strauss doing business in Bangladesh several years ago. Children in that country under the age of 14 were working in two of Levi's local suppliers. This employment practice violated Levi's norms but not the local cultural norms. Firing the children would have prevented the children from being able to get an education and would have placed hardships on their families, who depended on the children's wages. A negotiated agreement (between Levi's universal values and local country norms) involved the suppliers agreeing to pay the children regular wages while they went to school and then hiring them when they turned 15 years old. Levi's agrees to provide for the children's tuition, books, and uniforms.

MNEs Corporate Cultures

MNEs must also create inclusive, ethical corporate cultures while managing both external and internal complexities such as hiring and training a diverse workforce, adapting to local culture norms while balancing home country ethics and values, and ensuring a multicultural approach to doing business across countries.

Hanna identified five strategic questions that relate to organizational cultural sensitivities when doing business abroad as well as in a home country:⁷³

1. "What do customers and stakeholders in our market expect from our organization? (Will their standard of living be raised? Will their cultural expectations be violated?)
2. What is our strategy to be successful in this competitive marketplace? (What can we realistically hope to achieve? What results are we willing to commit to?)
3. What are our governing values that define how we will work with stakeholders and with each other?

4. What organizational capabilities do we need in order to achieve these results?
5. What do our work processes, roles, and systems need to do so that we are consistent with all of the above?"

The author maintains that these questions will help bring an awareness to cultural differences and help organizational leaders and staff reach agreement on customizing decisions to fit a particular market while balancing company principles with local values.

Global firms are also sensitized to the recent #MeToo movement in the United States that raises women's awareness and courage to speak out about sexual harassment and assault in companies and workplaces. This movement further highlights the need to diversify and integrate workforces on the basis of gender and other traits that match customers' and population characteristics. This need is not only based on ethical factors such as fairness, equality, rights, and justice, but also on competitive advantage and marketing awareness. To that end, organizational leaders are implementing more gender-balanced talent pools, especially at the early-to-mid-career levels and the mid-to-upper levels globally. Gender balance is beginning to be seen as "a broader, more strategic cultural shift that includes developing leadership teams representing geographically diffuse markets. These leaders are recognizing that this balance drives the innovation and market understanding they need for other key business transformations. Without balance, they simply won't understand the world that's emerging."⁷⁴

For example, Dutch-based Royal DSM—the \$8 billion global company in health, nutrition, and materials science—has shifted from a male-run organization to a gender-balanced leadership team in three steps: (1) setting a vision connecting the goal to business success, (2) engaging men of the firm's dominant nationality, and (3) building competencies while working across nationality and gender differences. In 2000, DSM's top 350 executives were 75% Dutch and over 99% male. In 2017, the firm was 40% Dutch and 83% male. The CEO, Feike Sijbesma, plans to decrease the male ratio down by 2% per year and down below 75% by 2025. He is prioritizing sustainability and credibility more than speed.⁷⁵

Govindarajan's research indicated that, even though organizational cultures may vary widely, there are specific components that characterize a global culture. These include an emphasis on multicultural rather than national values, basing status on merit rather than nationality, being open to new ideas from other cultures, showing excitement rather than trepidation when entering new cultural environments and being sensitive to cultural differences without being limited by them.⁷⁶ Managers must also think more broadly in terms of ethical issues. Companies are using a wide variety of mechanisms to support and reinforce their ethics initiatives on a global scale. A useful mechanism for building global ethics in an organization is the social audit, which measures and reports the ethical, social, and environmental impact of a company's operations.⁷⁷

Also, as noted earlier in the chapter, Ethisphere—a renowned organization that evaluates the effectiveness of an organization's communication, training, ethics, culture, and compliance efforts to gain insights into employee concerns—continues to survey and publish annual results of "The World's Most Ethical Companies."⁷⁸ These surveys offer benchmarks of global and national companies' best ethical practices. A major finding from one of that organization's conferences stated that "[o]ut of the 644 respondents to the NAVEX Global 2016 Ethics & Compliance Training Benchmark Report, 70 percent said that 'creating a culture of ethics and respect' was one of their top training objectives. When it comes to CEOs, 92 percent agree that a strong corporate culture is important."

? Concept Check

1. What ways can and do some MNEs demonstrate social responsibility in foreign countries?
2. What are some specific ethical business practices other countries (besides the United States) and regional governing bodies (such as the European Union) practice and demonstrate with regard to the environment and competition?

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5.3.9: Emerging Trends in Ethics, CSR, and Compliance

Learning Objectives

1. Identify forecasts about contemporary ethical and corporate social responsibility issues.

Predicted trends in ethics, compliance, and corporate social responsibility for Fortune 500 companies, governments, groups, and professionals by Navex Global include:

1. “A shift in the ‘power of voice in the story of harassment.’” The #MeToo movement has changed everything. “Bill Cosby, Harvey Weinstein, Charlie Rose, Kevin Spacey, Al Franken, Matt Lauer, and Garrison Keillor” and other high-profile public figures have pressured organizations through public forum social media forums to take action. “Victims of harassment have the power of choice. They can make an internal report and hope that their organization responds properly, or they can choose to take their story public.” A clear message for corporations and ethics and compliance officers is, “Create a corporate culture in which employees feel comfortable raising their voices about anything from sexual harassment to feelings of being insulted. This will allow your compliance program to resolve issues before they turn into scandals, and preserve the integrity of your organization’s culture internally and its reputation externally. And don’t ever tolerate retaliation.”
2. The “Glassdoor” effect (when people trust online reviews of their companies more than what companies communicate) and the effect of trust when employee messages go viral on social media. Companies need to create “listen-up” cultures by creating internal reporting systems in which leadership and managers listen to and support employees when they raise their voices for the betterment of the company. “This ensures employees know that their report will be heard, taken seriously, and things will change if necessary.”
3. Assisting national disasters that suddenly occur causes havoc not only for vulnerable populations but also for unprepared organizations. Ethics and compliance professionals learned from 2017’s natural disasters (hurricanes in particular) to update preparation plans and test emergency hotlines, communications systems, and employee readiness.
4. The acceleration of the need for compliance and ethics programs as economies begin again to grow; “growth without ethics and governance does nobody any favors. Growth with ethics and governance won’t simply be a feel-good mantra in 2018, it will be a business imperative.”
5. Creating a “culture of compliance” in corporations (a culture of integrity and ethics) over one of “vicious compliance” (an overreliance on laws and regulations). “Finally, and most importantly, leadership accountability is what every employee is watching. In the end, what happens to the top performers who violate the rules will send the loudest message of all to the organization.”
6. An increasing need for compliance’s role in prevention and mitigation as cybersecurity evolves. “Compliance must play an integral part in any organization’s cross-functional cyber security program to make sure such efforts are enterprise-wide.”
7. Giving new voice to whistle-blowers is predicted as “regulatory scrutiny is increasing, and the voice of the whistleblower in the [Silicon] Valley is growing louder as well.” Corporations need to listen and resolve whistle-blowers’ issues internally before they decide to go outside.
8. Managing culture and free speech in the workplace during “polarizing times” continues about “race, gender, sex, sexual orientation, gender identity, national origin, and religion—and people’s right to fair treatment, protection, and the rights and benefits enjoyed by others.”
9. Data privacy is becoming a larger concern for chief compliance officers in companies as “privacy laws and the environments they regulate, have evolved.” Creating a safe and respectful workplace is needed.
10. The role of the compliance professional evolves and innovates as “old networking models are giving way to online networks that provide new and unprecedented opportunities to share ideas and collaborate.”

Ethics and compliance go hand in hand as stated earlier. With a strong ethical culture, compliance is more effective in preventing risks, and without a compliance program, those who deliberately choose to break laws and codes of conduct would create disorder. “Strong cultures have two elements: A high level of agreement about what is valued and a high level of intensity with regard to those values. “In the long run, a positive culture of integrity is the foundation for an effective ethics and compliance program, which, when properly embedded into an organization, can create a competitive advantage and serve as a valuable organizational asset,” quoted from Keith Darcy, an independent senior advisor to Deloitte & Touche LLP’s Regulatory and Operational Risk practice.⁷⁹

Moral Entrepreneur: A New Component of Ethical Leadership?

An innovative development in ethics and business is the concept of “moral entrepreneur.”⁸⁰ Brown and Trevino found that people who have been exposed to a **moral entrepreneur** are more likely to become a moral entrepreneur themselves because they have experienced its potential and experienced how it is done. Inspiration certainly takes place, and the person’s well-being is improved.⁸¹

Related to moral entrepreneurship is ethical leadership. Brown and Trevino’s ethical leadership is defined as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making.” Examples of such conduct include openness, honesty, and treating employees fairly and thoughtfully. Social learning theory was used to gain an understanding as to why ethical leadership is important to employees and how it is perceived to work.

Ethical leaders are models of ethical conduct who become the targets of identification and emulation for followers. For leaders to be perceived as ethical leaders and to influence ethics-related outcomes, they must be perceived as attractive, credible, and legitimate. They do this by engaging in behavior that is seen as normatively appropriate (e.g., openness and honesty) and motivated by altruism (e.g., treating employees fairly and considerately). Ethical leaders must also gain followers’ attention to the ethics message by engaging in explicit ethics-related communication and by using reinforcement to support the ethics message.⁸²

In addition to social learning theory, which focuses on why and how supporters follow a leader, a social development approach to the concept of ethical leadership is also needed because it focuses on the direction that leadership should take. Studies on corporate social responsibility are concerned with how companies can contribute to societal development, not only in the sense of solving social problems but also in the sense of improving social welfare, promoting social progress, and creating new social value.

Muel Kaptein argues that there is a third component to ethical leadership—moral entrepreneurship, in addition to the already defined components of the moral person and the moral manager.⁸³ His belief is that moral entrepreneurship opens avenues for studying various antecedents and outcomes of ethical leadership that hasn’t been acknowledged adequately to date.

Studies of the antecedents of ethical leadership, at both the situational and personal levels, have found that leaders who have had ethical role models are more likely to become ethical leaders.⁸⁴ These studies have also found that the personality traits of agreeableness and conscientiousness are positively related to ethical leadership. And studies on corporate social responsibility are concerned with how companies can contribute to societal development, not only in the sense of solving social problems, but also in the sense of improving social welfare, promoting social progress, and creating new social value.

According to Kaptein, someone who creates a new ethical norm is called a moral entrepreneur. Becker believes that those people who make moral reform happen are the moral entrepreneurs. He differentiates between two kinds of moral entrepreneurs: those who create new norms and those who enforce new norms. The moral entrepreneur experiences something horrific that prompts him to want to do something to solve the issue, as Kaptein describes, a want to correct by translating a preferred norm into legal prohibitions: however, he risks becoming an outsider themselves if they are not able to congregate support for the new norm.

Kaptein states that the component of moral entrepreneurship complements the two other components of ethical leadership (moral person and moral manager), because it highlights the creation of new norms instead of only following and implementing current ethical norms. Becker suggests that helping others is important and having the altruistic trait is important for a moral entrepreneur. Yurtsever, in developing a scale for moral entrepreneurship personality, suggests that moral entrepreneurs demonstrate high moral virtues, such as justice and honesty.⁸⁵ Moreover, being a moral manager is important to be able to get the support of others to follow the new ethical norm. In order to be successful as a norm creator, one needs the support of others. Even though the three components of ethical leadership complement each other, it is still possible for someone to only exhibit one or two of the components, making ethical leadership a multidimensional construct. For instance, one can be a moral entrepreneur without being a moral manager (what Becker calls the norm creator), or one can be a moral manager without being a moral entrepreneur, what Becker calls the norm enforcer.

Concluding Comments

So, does it pay to be ethical and moral, whether it be entrepreneurs and individuals or corporations and organizations? We have discussed this question in this chapter and presented different arguments with different views. Scholars and ethicists who have debated whether or not corporations can be ethical differ on their responses. One such conference in the INSEAD Business School in France closed with the following statement: “Theoretically, a strong case can be made for the moral responsibility of firms. However, this does not preclude individual moral responsibility for acts as a corporate member. Moreover, it was also evident that

considerable concern exists about corporate misconduct going unsanctioned and the possibility that both good and bad corporate behavior is profoundly influenced by the extent to which individuals and corporate entities are held morally responsible.”⁸⁶

This statement implies that both corporations and individuals bear the possibility and responsibility for unethical—as well as illegal—acts. While corporations are not individuals, people work and relate in corporate and work settings. That is why organizational leaders and cultures play such important roles in setting the tone and boundaries for what is acceptable (ethically and legally) and what is not. Ethical values and legal, compliance codes of conduct together work to prevent and if necessary seek correction and justice for unlawful actions. As noted earlier, promoting and rewarding ethical actions are more desirable and in the long-term more profitable.

Prooijen and Ellemers’s study using social identity analysis found that individuals are attracted to teams and organizations with positive features such as organizational “competence and achievements” and “moral values and ethical conduct.” Since these two features do not always cohere working environments, the authors’ study had students choose in three different studies which they would prefer in seeking employment, “perceived competence vs morality of a team or organization.” They found that “[r]esults of all three studies converge to demonstrate that the perceived morality of the team or organization has a greater impact on its attractiveness to individuals than its perceived competence.”⁸⁷

? Concept Check

1. What are some emerging national and global issues and trends in ethics and business ethics?

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5.3.10: Summary

Key Terms

Business ethics

The area of applied ethics that focuses on real-world situations and the context and environment in which transactions occur.

Corporate culture

The beliefs and behaviors that determine how a company's employees and management interact inside an organization and also handle outside business transactions. Corporate culture develops organically over time from the cumulative traits of the leaders and the people that the company hires.

Ethical dilemma

A situation in which a difficult choice has to be made between two courses of action with ethical consequences.

Ethical relativism

Holds that people set their own moral standards for judging their actions, based on self interest.

Ethics

The code of moral principles and values that governs the behaviors of a person or group with respect to what is right or wrong.

Instrumental values

The preferred means of behavior used to obtain desired goals.

Justice

Four major tenets: (1) All individuals should be treated equally; (2) Justice is served when all persons have equal opportunities and advantages; (3) Fair decision practices, procedures, and agreements among parties should be practiced; (4) Punishment is served to someone who inflicts harm.

Moral entrepreneur

Someone who creates a new ethical norm.

Normative ethics

The field of ethics concerned with our asking how *should* and *ought* we live and act.

Rights

Legal rights are entitlements that are limited to a particular legal system and jurisdiction, while moral rights are universal and based on norms in every society.

servant leadership

Involves selflessly working with followers to achieve shared goals that improve collective, rather than individual, welfare.

Stakeholder

Any group or individual who can affect or is affected by the achievement of an organization's objectives. The use of the term *stakeholder* has become commonplace in organizations.

Stakeholder management

The systematic identification, analysis, planning, and implementation of actions designed to engage with stakeholders

Stewardship

Concerned with empowering followers to make decisions and gain control over their work.

Terminal values

Desired goals, objectives, or end states that individuals wish to pursue.

Virtue ethics

Grounded in one's character, focusing on what type of person one ought to be.

Summary of Learning Outcomes

5.2 Ethics and Business Ethics Defined

1. What are ethics and business ethics?

A goal of the chapter is to present ethical principles, guidelines, and questions that inform our individual decision-making and influence actions we can take with regard to questionable ethical situations and dilemmas. We also present and illustrate how business leaders, corporations, and organizations internationally have responded and are responding to questionable ethical problems with the environment in their communities through responsible corporate governance and alliance with concerned stakeholders. Ethics is both local and global; it begins with the individual, moves to the organizational, and reaches to international and global levels of societies.

5.3 Dimensions of Ethics: The Individual Level

2. What are the types of values that motivate ethics at the individual level?

Ethics at an individual level may seem to involve only the individual, but it is a holistic process. There may be high pressure from coworkers, managers, or any other constituent of business culture to be unethical. Individuals may hate such pressures, and they tend to work to avoid the dilemmas.

5.4 Ethical Principles and Responsible Decision-Making

3. What are the major ethical principles that can guide individuals and organizations?

There are many approaches for both individuals and organizations to take with regard to ethical principles. They are utilitarianism; universalism, which is a duty-based approach; a rights approach, which takes a moral and legal approach; justice; virtue; common good; and finally the ethical relativism approach.

5.5 Leadership: Ethics at the Organizational Level

4. Why is ethical leadership important in organizations?

After the failures of Enron and other organizations, people have started emphasizing the concept of ethical leadership. An organization can incorporate ethical practices only if its leaders enforce ethical values into the organization. While such basic concepts of ethics such as being honest are crucial to ethical leadership, a modern approach is to take the servant leadership approach, where the leader serves the interests of all stakeholders in an ethical manner.

5.6 Ethics, Corporate Culture, and Compliance

5. What are the differences between values-based ethics and compliance in organizations?

A compliance-based ethical approach is simple and direct. It provides a basic integrity to the participant since it is spelled out in clear terms. If the individual or organization exhibits destructive behaviors, their rights can be restricted. An integrity-based ethics code fills the receiver with demands based on the highest expectations.

5.7 Corporate Social Responsibility (CSR)

6. What value do CSR (corporate social responsibility) programs offer to organizations and society?

Corporate social responsibility is about an organization taking responsibility for the impacts of its decisions and activities on all aspects of society, the community, and the environment. Corporate social responsibility is about contributing to the health and welfare of society and operating transparently and ethically. More importantly, this way of operating should be embedded in the business, rather than an afterthought.

5.8 Ethics around the Globe

7. What are ethical issues we encounter in the global environment?

Some of the most common ethical issues organizations encounter globally include outsourcing, working standards and conditions, workplace diversity and equal opportunity, child labor, trust and integrity, supervisory oversight, human rights, religion, the political arena, the environment, bribery, and corruption.

5.9 Emerging Trends in Ethics, CSR, and Compliance

8. Identify forecasts about contemporary ethical and corporate social responsibility issues.

Among the emerging issues in the area of ethics are in the area of harassment in the era of #MeToo. Organizations and individuals are also more accepting of their roles in assisting with such things as natural disasters and national emergencies. Finally, there is increasing attention to issues of compliance and governance to ensure that organizations meet their stated ethical standards.

? Chapter Review Questions

1. What is the difference between ethics and business ethics?
2. What is normative ethics?
3. Why are values an important element of ethics for individuals and organizations?
4. What are the differences between instrumental and terminal values?
5. Can an individual be ethical without using ethical principles described in the chapter? Explain.
6. Identify major classical ethical principles.
7. Differentiate between the principle of rights and utilitarianism and between justice and universalism.
8. Why is leadership important for ethical conduct in corporations?
9. Identify two types of ethical leaders and the important role each plays.
10. What is the difference between ethics and compliance in organizations?
11. What is CSR, and why is it important?
12. What is stakeholder management?
13. What is the difference between stakeholders and stockholders?
14. What is different about ethics in a global or international context and ethics in a national context or setting?
15. What are some global issues that corporations must face today, and why are these important?
16. Identify some contemporary ethical and compliance trends affecting corporations, employees, and individuals now.
17. What is a moral entrepreneur?
18. Does ethics pay? Explain.
19. After reading this chapter, what are major insights you have about ethics and CSR?

Management Skills Application Exercises

1. What are some advantages and disadvantages of leaders, managers, and employees having and working with a principle-centered approach (using some ethical principles in the chapter) rather than taking a “come what may,” trust in luck, circumstance and chance approach?
2. Would you rather work for a company that takes a stakeholder or stockholder approach in its dealings with customers, employees, suppliers, and other constituencies in its network? Explain.
3. What are some principles (from the chapter) that leaders and managers can use to guide their actions in ethical ways?
4. What can organizational managers and leaders learn with regard to organizational cultures that would inspire and motivate employees to do the right thing in their work?
5. What type of leaders and leadership styles and practices often lead to problems with employees, customers, and other stakeholders and stockholders?
6. Describe how a leader, manager, and employee might think and act differently if their organization seriously adopted and practiced doing business with a corporate social responsibility mindset.
7. What are some concerns that have ethical implications that a leader, manager, or employee might have when doing business internationally or globally?
8. After reading the section in the chapter on ethical and compliance trends going forward, what top two or three things do you think organizational leaders and managers would want to take action on preparing for now? Why?

Managerial Decision Exercises

1. You are a manager, and your boss—who is also a friend—has reprimanded a fellow employee (also a friend) in ways that are demonstrably unfair and unethical but not illegal. That employee has confided in you with the facts, and you agree. The employee asks you not to mention anything to the boss but to go with her to human resources for support while she reports him for those actions. What would you do, if anything, and why? Explain.
2. One of your direct reports thinks that you are not acting responsibly or in the best interests of the company with him or the department in which you work. The direct report has informed you that your communication and work style are lacking and that this is also causing problems with others in the department. You are upset over this news and realize it could cause you problems with your boss and those above. What would you do, when, why, and how?
3. You learn that a woman in your department has complained about sexually improper advances toward her by your boss and another more senior person above that boss. You know the woman but not well. She may be right in this instance. You have heard rumors that she often exaggerates and sometimes can't be trusted. You don't particularly like her and are concerned about your own reputation if she's wrong. What would you do and why?
4. Your department boss wants you to select a few others in your organization to explore adopting corporate social responsibility practices. Some of your friends think that CSR isn't effective and in fact wastes resources and time of those who get involved. To take on this assignment would require time out of doing your own work. However, you have noticed that your organization's leadership isn't all that responsible and responsive to employees and many customers. Maybe adopting more ethical standards and practices could improve business and some of the questionable leaders' behaviors. What would you do and why?

Critical Thinking Case

Wells Fargo

The Wells Fargo recent crisis over mismanaging customer relationships, fraudulently implementing illegal and unethical sales practices with trusted clients, has cost the company in fines, lost business, and the resignation of the CEO. The following online sources offer a narrative and factual source of what happened, when, to whom, and why. Use these sources to answer and provide evidence to the following questions to present to the class:

1. What were the sources and causes the problems in the first place? Explain.
2. Who were some of the primary decision makers that led to the illegal sales activities?
3. What were these individuals' motives and motivations?
4. How were the illegal and fraudulent activities discovered?
5. Who was to blame?
6. What unethical activities occurred before the illegal actions took place?
7. What would you have done, if anything, had you been one of the sales professionals pressured to engage in unethical, illegal practices there?
8. How would a stakeholder approach, if taken by the company's top leaders and board of directors, have possibly prevented the crisis

Sources: Comrie, Harley, "Wells Fargo Fake Accounts Scandal", Seven Pillars Institute, March 15, 2017, <http://sevenpillarsinstitute.org/cas...counts-scandal> ; "Wells Fargo Banking Scandal a Financial crisis We Can Finally Understand", *The Guardian*, accessed January 2, 2019, www.theguardian.com/business...inancialcrisis; Glazer, Emily, "Wells Fargo's Textbook Case of Botched Crisis Management", *The Wall Street Journal*, October 13, 2017, www.wsj.com/articles/wells-f...sis-1476380576.

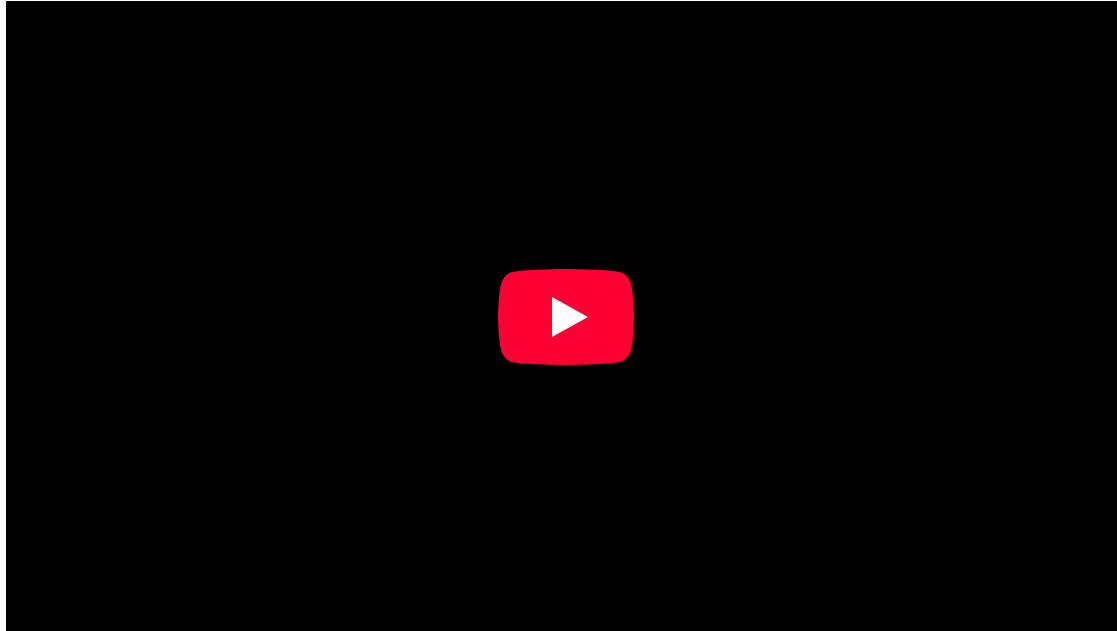
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5.4: Triple Bottom Line

Profit, People, and Planet: The Triple Bottom Line

The chapter reading introduced the Triple Bottom Line. Watch the following 9:01 video which provides additional context around this term.

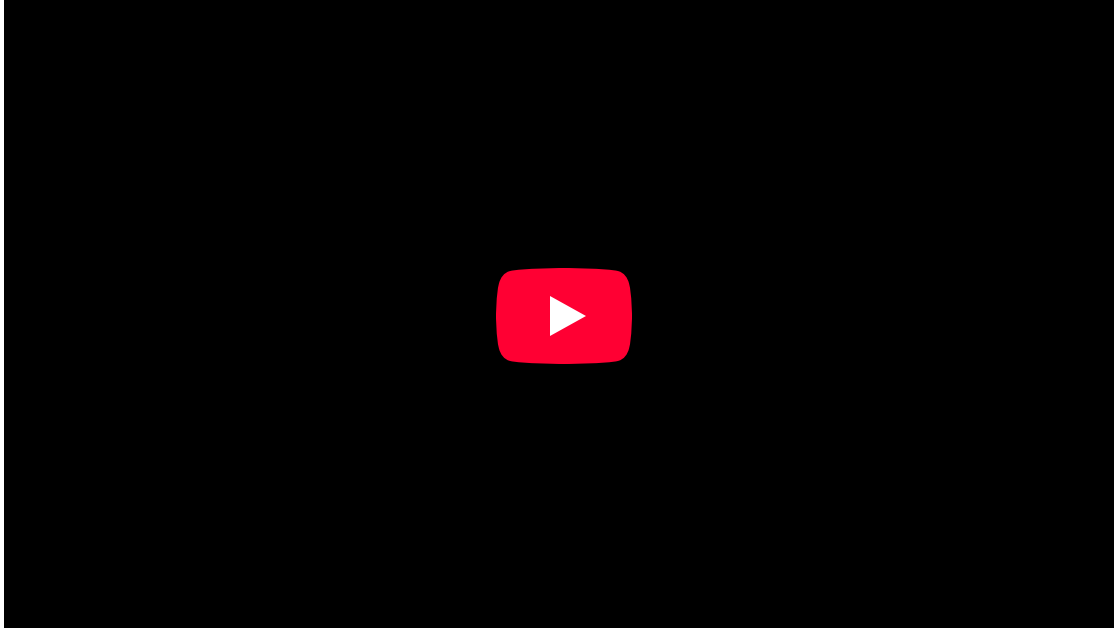


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5.5: Being Ethical Even When No One Is Watching

Behaving Ethically Even When No One is Watching

Throughout the learning materials this week, you learned about the importance of ethical decision-making; at both the corporate level and the managerial level. Now, watch the following 16:01 video that talks about integrating your personal integrity within the organizations that you work for:

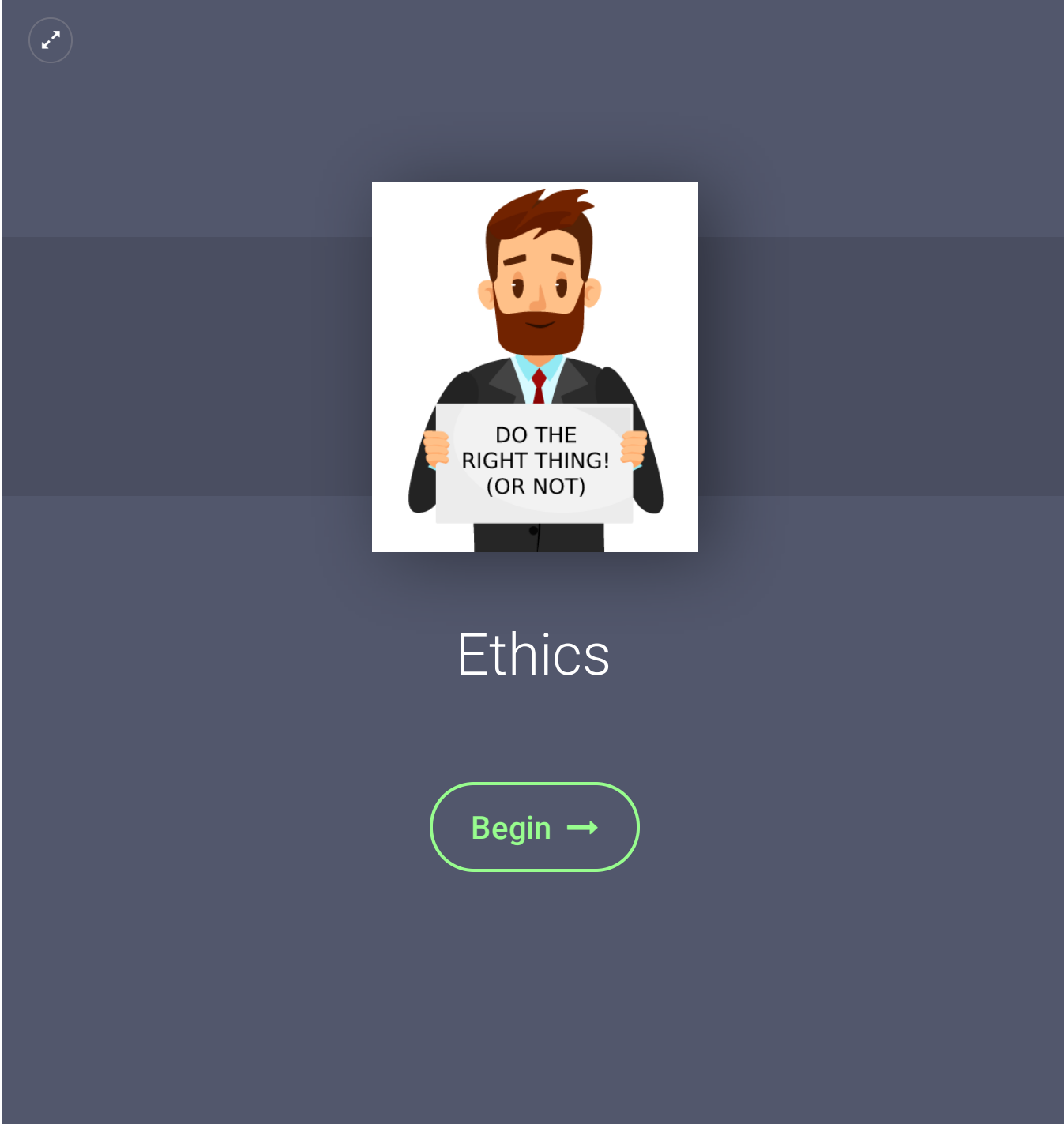


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5.6: Ethics Simulation

How Your Choice Influence Outcomes - Try It!

Play the simulation below multiple times to see how different choices influence the outcome. All simulations allow unlimited attempts so you can gain experience applying the concepts.



The simulation interface features a dark blue background. In the top-left corner, there is a small circular icon with a double-headed arrow. Centered on the screen is a white square containing a cartoon illustration of a man with a beard and brown hair, wearing a dark suit, light blue shirt, and red tie. He is holding a white rectangular sign with the text "DO THE RIGHT THING! (OR NOT)" in black, all-caps font. Below the illustration, the word "Ethics" is written in a large, white, sans-serif font. At the bottom center, there is a green rounded rectangular button with the text "Begin →" in white.

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Simulation: Ethics. **Authored by:** Clark Aldrich for Lumen Learning. **License:** [CC BY: Attribution\(opens in new window\)](#)

Source: [5.13: Simulation- Ethics \(opens in new window\)](#) by Lumen Learning is licensed CC BY 4.0 Original source: [https://courses.lumenlearning.com/waymakerintromarketingxmasterfall2016\(opens in new window\)](https://courses.lumenlearning.com/waymakerintromarketingxmasterfall2016(opens in new window)).

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CHAPTER OVERVIEW

6: Growth Mindset

- 6.1: Overview and Guiding Questions
- 6.2: Think Analytically about Cultivating a Growth Mindset
- 6.3: Using Feedback
- 6.4: Goal Setting
- 6.5: Time Management
- 6.6: Community Involvement
- 6.7: Persistence During Stressful Times

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6.1: Overview and Guiding Questions

The Importance of Cultivating a Growth Mindset

This section explores a variety of factors that are instrumental in cultivating a growth mindset.

Consider the following questions as you review the learning materials:

- How can feedback be used to shape future development?
- How does goal setting help one embrace challenges positively?
- Which time management habits promote long-term success?
- How can community involvement provide opportunities for personal growth and skill development?
- What techniques can be used to persist during stressful situations?

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6.2: Think Analytically about Cultivating a Growth Mindset

Analytical Thinking

Think analytically to determine how the following concepts relate to cultivating a growth mindset:

- Use of feedback
- Goal setting
- Time management
- Community involvement
- Persistence during stressful times

Analytical Thinking

Analysis is the process of methodically breaking something down to gain a better understanding of it. Analysis also includes the ability to connect pieces of information as the basis for generalization or explanation.

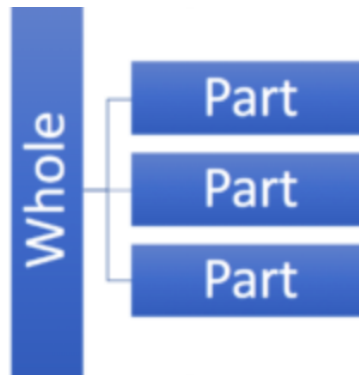


Figure 1. Analysis consists of breaking something down and taking a close look at each of its parts while looking for themes, patterns, and assumptions.

Essential skills of analysis are the following:

1. Breaking down information or artifacts into component parts
2. Uncovering relationships among those parts
3. Determining motives, causes, and underlying assumptions
4. Making inferences and finding evidence to support generalizations

When thinking analytically, determine

- **how** the parts of something relate to the whole
- **how** something works
- **what** something means
- **why** it's important

Glossary

analysis: the process of methodically breaking something down to gain a better understanding of it

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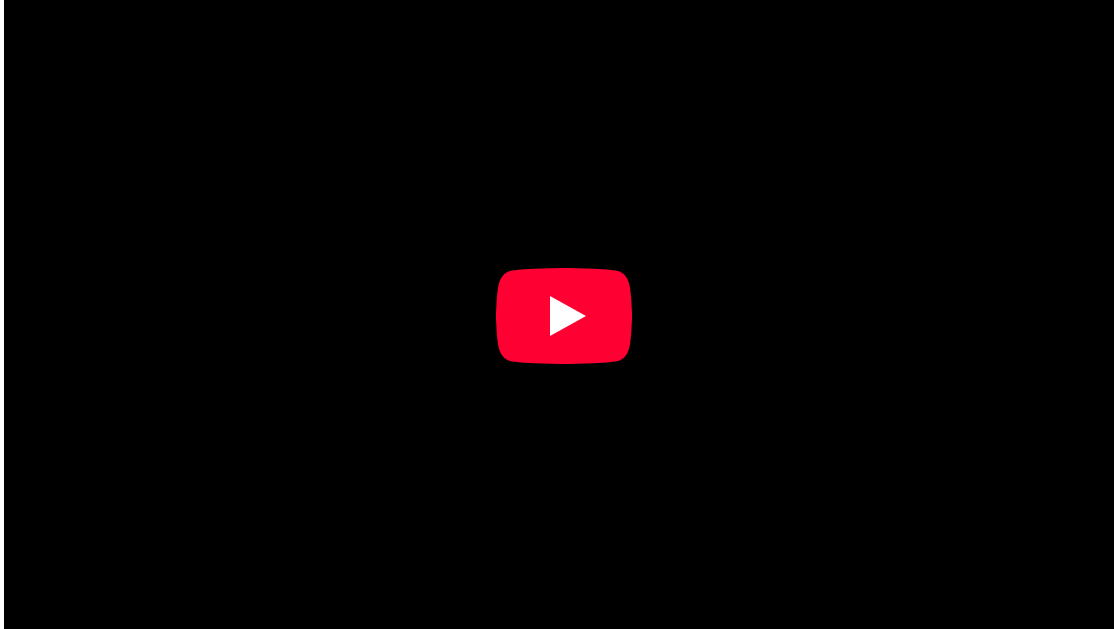
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6.3: Using Feedback

How Do I Build a Growth Mindset?

In previous courses, you explored the differences between a fixed mindset and a growth mindset and you explored ways to cultivate a growth mindset.

Now, we will further our study of growth mindset and look at various components related to building a growth mindset. We begin by looking at the impact feedback has on your performance. Watch the following 18:22 video where this important concept is discussed:



Journal Assignment:

After watching the above video, take some time to consider each of the questions below and document your thoughts:

1. What does it mean to have a growth mindset when receiving feedback and how does this mindset help you to improve?
2. How open have you been to receiving feedback from others in the past? (Consider Instructors, peers, family, managers, etc.)
3. Think about a career you are interested in. How do you think professionals in that role use feedback to grow?
4. What strategies can you use to seek out feedback more effectively going forward? (Consider Instructors, peers, family, managers, etc.)

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6.4: Goal Setting

Discover Your Values and Goals



Assessing Your Core Values

The journey of achieving success in college begins with a single step: identifying your personal values. Your personal values are your core beliefs and guiding principles. They shape the roles you play in daily life. They color your interests and passions and frame your thoughts and words. In essence, your values are a compass that helps you make decisions and choices.

Identifying your own values helps you plan for:

- Your academic goals
- Your career goals
- Your financial goals
- How you spend and manage your time
- How you spend and manage your money

Values are the things that you believe are fundamentally important in the way you live and work. They shape how you interact with others. They determine your priorities (whether you're conscious about it or not), and they shape the choices you make. They are the measures by which you judge yourself and they're also the measures by which you judge others.

When your actions are consistent with your values, you feel peaceful with the choices you make even if the outcome of those choices is not positive. When some action or decision is not aligned with your values, you feel conflicted and remorseful.

You can assess your core values by checking to see if it meets these three criteria:

1. It has been freely chosen from amongst alternatives after consideration and thought.
2. It is prized, cherished and considered precious and is publicly affirmed when appropriate.
3. It is acted upon consistently, modeled for others, and pursued even when there are consequences for doing so.

Why Find Your Core Values?

This might seem like a rhetorical question, but in fact, it is quite important to understand the power and importance of core values. They are your foundation as a person, guiding your actions and your decisions. The stronger the foundation the better and greater the person you will be able to become.

What are your values, then? Which are most important to you, and which are least important? How do your values fit into your educational goals? How do your educational goals relate to your future career? Are you spending your time in a way that prioritizes your goals? Does your budget reflect your goals?

To help you answer these questions, you can use a “self-assessment” survey. These surveys can help you evaluate your personal identity—your thoughts, actions, attitudes, beliefs, values, and behaviors—in relationship to the task at hand, like going to college and preparing for a career.

Many different self-assessment surveys are available from college career centers and online sites. Some are designed as personality tests, like the Keirsey Temperament Sorter, or as inventories, like the Myers-Briggs Type Indicator (MTBI®), the most widely used personality inventory in history. You may also come across instruments designed as scales, or measures, games, surveys, and more. These descriptors are often interchangeably used, although most often they refer to questionnaires. The distinctions are not as important as whether or not the instrument meets your self-assessment needs.

You can visit a career counselor at your college's Career Services Office and request the MBTI assessment to further explore your values. You can also use other assessments available through your school.

In Task #2 (see below) you will sample several self-assessment surveys to gain insights into your personal identity, values, educational goals, and career goals. By better understanding the interconnections, you are in a better position to make solid college

and career choices.

Stages Of Life

Keep in mind that your personal values and interests can and do change as you get older. This is evidenced in research conducted by a number of contemporary social scientists, like Erik Erikson and Daniel Levinson. Their studies show how our values affect our choices and how our choices can characterize the stage of life we're in.

For example, college students, ages 18–26, tend to make choices that are tentative (more short-range) and support a desire for autonomy. Later, during ages 27–31, young adults may rethink decisions and lean toward more permanent choices. In ages 32–42, adults tend to have a greater sense of commitment and stability, as shown by their choices. In essence, our personal identity and values change over time, but they continue to affect our choices and can illuminate the stage of life we're in.

Keeping in mind that there are many phases of life, you can expect to see changes in your values and choices as you get older. You may experience a significant change in perspective while you are in college! To better understand your relationship with your values, you can continually reassess what is important to you. Make a commitment to examining your thinking, actions, and choices, and keep taking self-assessment tests. This will put you in a stronger position to manage changes in your educational goals, your career, living situation, hobbies, friends, and other aspects of your life. Changes are part of normal life transitions.

Setting Goals

Some people are goal-oriented and seem to easily make decisions that lead to achieving their goals, while others seem just to “go with the flow” and accept what life gives them. While the latter may sound pleasantly relaxed, moving through life without goals may not lead anywhere at all. The fact that you're in college now shows you already have the major goal to complete your college program.

A goal is a result we intend to reach mostly through our own actions. Things we do may move us closer to or farther away from that result. Studying moves us closer to success in a difficult course, while sleeping through the final examination may completely prevent reaching that goal. That's fairly obvious in an extreme case, yet a lot of college students don't reach their goal of graduating. The problem may be a lack of commitment to the goal, but often students have conflicting goals. One way to prevent problems is to think about all your goals and priorities and to learn ways to manage your time, your studies, and your social life to best reach your goals. Also, consider whether your goals support your core values. You are more likely to achieve a goal that is aligned directly with your values.

Consider These Four Student Scenarios

Juan

To help his widowed mother, Juan went to work full time after high school but now, a few years later, he's dissatisfied with the kinds of jobs he has been able to get and has begun taking classes toward an Associates Degree in Computer Science in the evenings. He's often tired after work and his mother would like him to spend more time at home, and his girlfriend also wants to spend more time with him. Sometimes he cuts class to visit his mother or spend time with his girlfriend.

Becky

In her senior year of college, Becky has just been elected president of her sorority and is excited about planning a major community service project. She knows she should be spending more time on her senior thesis, but she feels her community project may gain her contacts that can help her find a better job after graduation. Besides, the sorority project is a lot more fun, and she's enjoying the esteem of her position. Even if she doesn't do well on her thesis, she's sure she'll pass.

Morgan

After an easy time in high school, Morgan is surprised their college classes are so hard. They have enough time to study for their first-year courses, but they also have a lot of friends and fun things to do. Sometimes they're surprised to look up from their computer to see it's midnight already, and they haven't yet started reading the assigned chapter! Where does the time go? When they're stressed, however, they can't study well, so they plan to get up early and read the chapter before class, but then they turn back to their computer to see who's online.

Sachito

Sachito was successful in cutting back her hours at work to give her more time for her college classes, but it's difficult for her to get much studying done at home. Her husband has been wonderful about taking care of their young daughter, but he can't do everything, and lately, he's been hinting more about asking her sister to babysit so that the two of them can go out in the evening the way they used to. Lately, when she's had to study on a weekend, he leaves with his friends, and Sachito ends up spending the day with her daughter—and not getting much studying done.

What do these very different students have in common? Each student has goals that conflict in one or more ways. Each needs to develop strategies to meet their other goals without threatening their academic success. And all of them have time management issues to work through, three because they feel they don't have enough time to do everything they want or need to do, and one because even though he has enough time, he needs to learn how to manage it more effectively. For all four of them, motivation and attitude will be important as they develop strategies to achieve their goals.

It all begins with setting goals and thinking about values and priorities!

Benefits of Goal Setting

Setting goals can turn your dreams into reality. You may have a dream to one day graduate from college, buy a new car, own your own home, travel abroad, etc. Any of these dreams can be broken down into a detailed goal and plan of action. For example, maybe you want to buy a home in 20 years. You will need \$40,000 as a down payment. That's a lot of money and may not feel achievable. But, if you break that \$40,000 into 20 years, that's \$2,000 a year. That sounds more manageable. And if we break it down even more, you can buy that house if you save about \$165 a month, or \$42 a week, or \$6 a day! Can you save \$6 a day, maybe by packing your lunch instead of the drive-thru? Our big dream is now an achievable, realistic goal.

Setting goals has many benefits, including turning your dreams into reality. Goal setting allows you to create a plan to focus on your goal, rather than dreaming about the future. It also reduces anxiety and worry. It is much less anxiety-producing to focus on saving \$6 a day than it is to save \$40,000. It is also motivating because you will be able to measure your progress and successes.

At the end of one year, you will have saved \$2,000, which will motivate you to keep saving and maybe even increase your saving goal. You will use your time and resources more wisely, often leading to faster and increased results.

As you think about your own goals, think about more than just being a student. You're also a person with your own core values, individual needs, and desires, hopes and dreams, plans and schemes. Your long-term goals likely include graduation and a career but may also involve social relationships with others, a romantic relationship, family, hobbies or other activities, where and how you live, and so on. While you are a student you may not be actively pursuing all your goals with the same fervor, but they remain goals and are still important in your life. Think about what goals you would like to achieve academically, vocationally (career), financially, personally, physically, and spiritually.

Types of Goals

There are different types of goals, based on time and topic.

Long-term goals may begin with graduating from college and everything you want to happen thereafter. Often your long-term goals (graduating with a bachelor's degree) guide your mid-term goals (transferring to a University), and your short-term goals (getting an A on your upcoming exam) become steps for reaching those larger goals. Thinking about your goals in this way helps you realize how even the little things you do every day can keep you moving toward your most important long-term goals. Common long-term goals include things like earning your Bachelor's degree, owning a home, getting a job in your career area, buying a new car, etc.

Mid-term goals involve plans for this school year or your time here at college or goals you want to achieve within the next six months to two years. Mid-term goals are often stepping stones to your long-term goals, but they can also be independent goals. For example, you may have a goal of transferring to University, which is a midterm goal that brings you closer to your long-term goal of getting your Bachelor's degree. Or, you may have a goal to pay off your credit card debt within the next 12 months or to save for a car that you plan to buy next year. When making mid-term goals related to your long-term goals, make a list of accomplishments that will lead you to your final goal.

Short-term goals focus on today and the next few days and perhaps weeks. Short-term goals expect accomplishment in a short period of time, such as trying to get a bill paid in the next few days or getting an A on your upcoming exam. The definition of a short-term goal need not relate to any specific length of time. In other words, one may achieve (or fail to achieve) a short-term goal in a day, week, month, year, etc. The time-frame for a short-term goal relates to its context in the overall timeline that it is being applied to. For instance, one could measure a short-term goal for a month-long project in days; whereas one might measure a short-term goal for someone's lifetime in months or in years. Often, people define short-term goals in relation to their mid-term or long-term goals.

An example of how short-term and mid-term goals relate to long-term goals is wanting to earn your Bachelor's degree. If you have a goal of earning your Bachelor's degree in four years, a mid-term goal is getting your Associates Degree and getting accepted to your top choice University in two years. This can be broken down into a series of short-term goals such as your GPA goal for this semester, your goal grade on an upcoming exam, and the amount of time you plan to study this weekend. Every long-term goal can be broken down into smaller steps and eventually lead to the question, "what do I have to do today to achieve my goal?"

You will make goals in different areas of life and at different times in your life. At this point in your life, academic goals may take precedent but there are also other areas to consider.

Academic – You clearly already have an academic goal and are actively working on pursuing it. Academic goals may include things like a target GPA, completing your Associate's Degree, or transferring to a University. It may also include short-term goals like completing your homework before the weekend.

Career – At this point, your career goals are closely linked to your academic goals, such as getting a degree or certificate in your chosen career field. You may also have careers goals of gaining experience in your field through internships and work experience.

Financial – Your financial goals are often tied to your career goals. You may have a salary goal or you may have the goal of saving for a home, a car or a vacation. You may also have goals to reduce debt and manage your budget.

Health/Physical – Almost all of us have worked on physical goals. Many people have the goal to lose weight, to increase their exercise or to drink more water. Other health goals could include establishing a regular sleep schedule, eating more fruits and vegetables, or seeing your doctor regularly. Health goals can also include mental health such as meditating or working to reduce stress and anxiety.

Social/Relationships – Even though it may feel like it sometimes, your life is more than school and work. You should also establish goals for your social relationships. For example, make a goal to stay in contact with a friend who moved, or to visit your family every week, or to have a date with your significant other once a week. Your social relationships are a vital part of your life and deserve your attention and focus.

Spiritual – Many people have religious goals, such as attending church regularly, practicing daily prayer, or joining a church group. Even if you aren't religious, you may have spiritual goals such as time alone to meditate.

Personal/Hobbies – In addition to work and school, you may have hobbies or personal interests that you want to devote time and energy to. Perhaps you have a goal of rebuilding a motorcycle or learning how to knit or sew.

SMART Goals

Turn your dreams into reality by following the SMART goal-setting process. SMART goals are commonly associated with Peter Drucker's management by objectives concept. It gives structure and organization to the goal-setting process by establishing defined actions, milestones, objectives and deadlines. Creating SMART goals helps with motivation and focus and keeps you moving forward. Every goal can be made into a SMART goal!

When writing your goals, follow these SMART guidelines. You should literally *write* them down because the act of finding the best words to describe your goals helps you think more clearly about them.

- **Goals should be SPECIFIC (S)**

- What exactly do you want to achieve? Avoid vague terms like “good,” and “more.” The more **specific** you are, the most likely you are to succeed.
- A specific goal has a much greater chance of being accomplished than a general goal.
- To set a specific goal, **answer the six “W” questions:**
 - Who:** Who is involved?
 - What:** What do I want to accomplish?
 - Where:** Identify a location.
 - When:** Establish a time frame.
 - Which:** Identify requirements and constraints.
 - Why:** Specific reasons, purpose or benefits of accomplishing the goal.

“I will get a 3.5 GPA this semester so that I can apply to the Surgical Tech Program.”

- **Goals should be MEASURABLE (M)**

- Break your goal down into **measurable** elements so you have concrete evidence of your progress.
- Using numbers, quantities or time is a good way to ensure measurability.
- When you measure your progress, you stay on track, reach your target dates, and experience success!
- To determine if your goal is measurable, ask...
 - How much?
 - How many?
 - How often?
 - How will I know when it is accomplished?

“I will study 18 hours per week, 3 hours per day for six days a week.”

- **Goals should be ATTAINABLE (A)**

- A goal should be something to strive for and reach for but something that is **achievable and attainable**. For example, completing an Associate's Degree in one year may not be attainable while working full time with a family.
- Ask yourself if you have the time, money, resources and talent to make it happen
- Weigh the effort, time and other costs your goal will take against the benefits and other priorities you have in life.
- You can attain most any goal you set when you plan your steps wisely and establish a time frame that allows you to carry out those steps.

“I will complete 9 credit hours this semester while working part-time.”

- **Goals should be REALISTIC (R)**

- Your goal should be **realistic and relevant**. Ask yourself if your goal and timeline is realistic for your life, why is the goal important to you, and what is the objective behind your goal? What makes the goal worthwhile for YOU?
- Be sure the goal is relevant to you.
 - Why is this goal important to you? (Make sure your goal aligns with your values.)
 - What are the benefits and rewards of accomplishing this goal?
 - Why will you be able to stay committed in the long-run?
 - Is it something that will still be important to you a month or year from now?

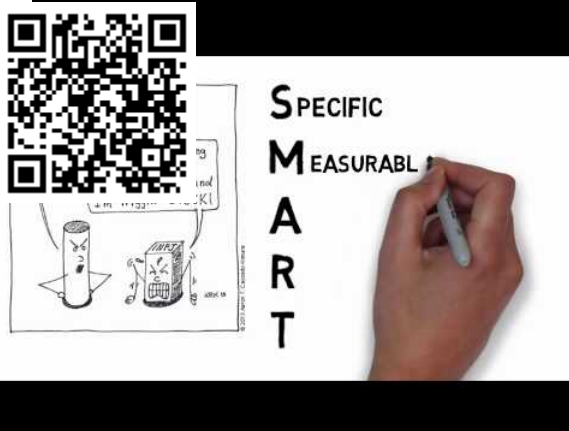
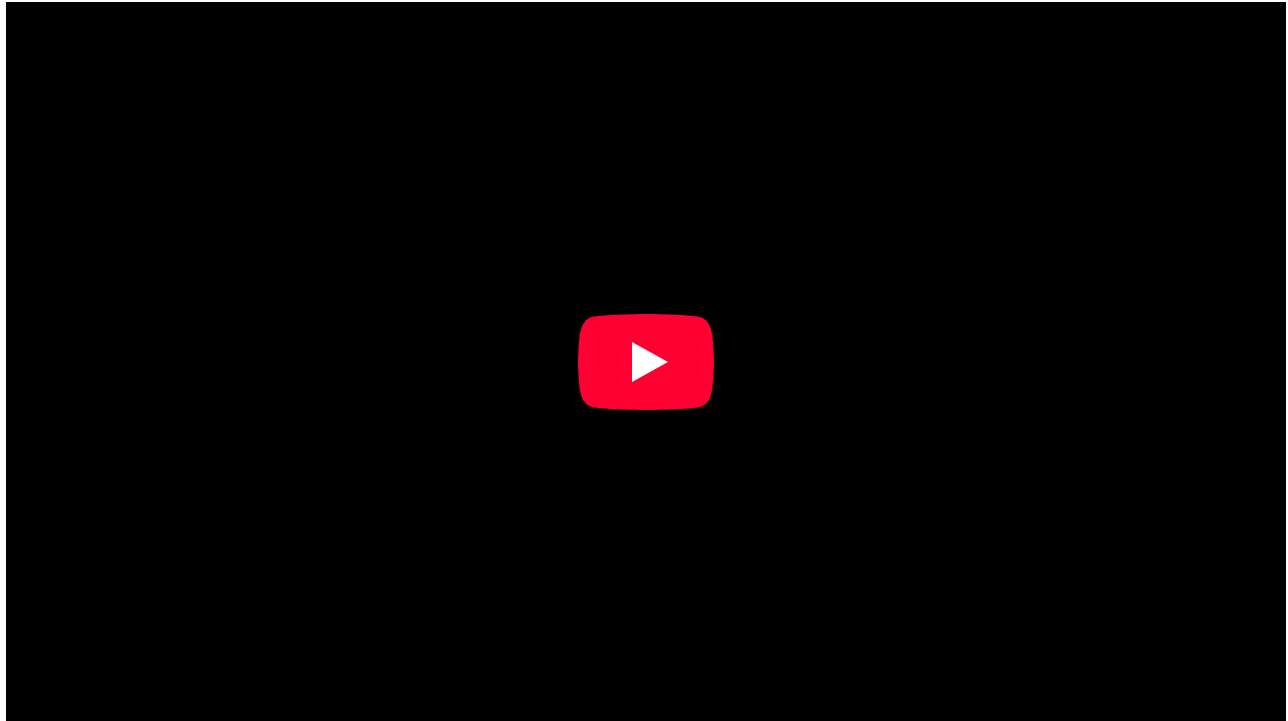
“I will become a Surgical Technician in two years to pursue my interests and values in helping others and provide for my family.”

- **Goals should have a TIMEABLE (T)**

- Your goal should have a clear deadline. This will help you stay accountable and motivated.
- Keep the **timeline** realistic but also a little challenging to create a sense of accountability and avoid procrastination.
- With no deadline, there's no sense of urgency, which leads to procrastination.
 - “Someday,” “soon,” and “eventually” are not deadlines.
 - Be specific with each deadline for each step along the way.

“I will complete the draft of my research paper one-week before the deadline.”

You can watch this supplemental video on SMART goals if you wish to explore the idea further.



SMART Goals

Putting Your Goals Into Action

Be certain **you** want to reach the goal. We are willing to work hard and sacrifice to reach goals we really care about, ones that support our core values. But, we're likely to give up when we encounter obstacles if we don't feel strongly about a goal. If you're doing something only because your parents or someone else wants you to, then it's not your own personal goal—and you may have some more thinking to do about your life.

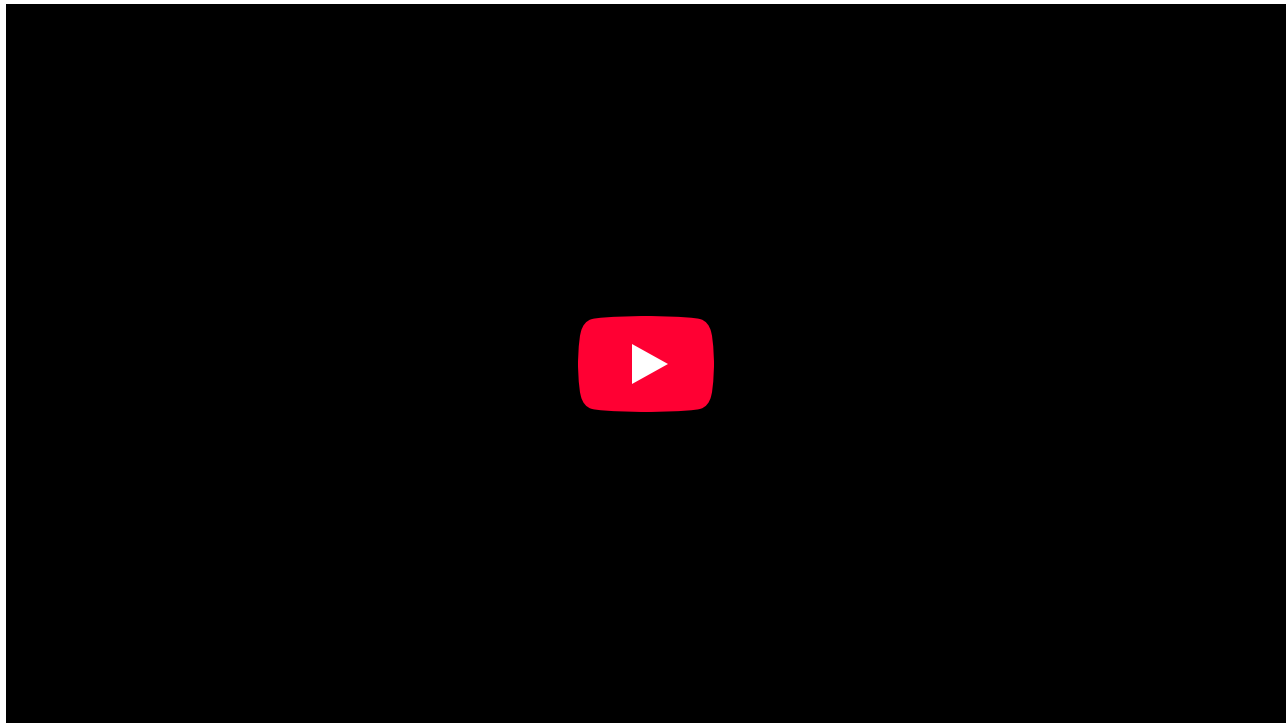
Writing down your goals helps you to organize your thoughts and be clear with your goals, ensuring you meet the SMART goal criteria. When you write your goals, state them positively, stating what you *will* do rather than what you won't do. When you focus on doing something, that behavior often increases. On the other hand, when you focus on *not* doing something, that behavior also often increases. For example, if you have a goal to increase your health, you may focus on increasing your water intake to at least 64 ounces per day. This will lead you to think about and drink more water! But, if you focus on *not* drinking soda, you are likely to think about soda all day and end up drinking more.

After you have written down your goal, post it in a visible place to remind you every day of what it is you are working toward. When you see your goal, ask yourself, "Did my choices today help move more toward my goal? Are my actions supporting my goals?" Being reminded of your goal can help you stay motivated and focused.

Consider sharing your goal with friends, family or classmates. Sharing your goal with supportive people who care about you will help you stay on track. Share your goal with people you know will be encouraging and cheer you on as you work toward your goal. In return, offer the same support for your friends' goals and dreams.

How to Stay Motivated

Watch this video that adapts a presentation by Daniel Pink that explains "the surprising truth about what motivates us." Do you think you need a big reward in order to stay motivated to work on your goal? Or, do you need a strict consequence if you don't meet your goal? Watch the video to find out.



Drive: The surprising truth about what motivates us

KEY TAKEAWAYS

- There are three criteria for identifying your core values. Identifying your core values is the first step of the goal-setting process.
- Self-assessments can help you define your core values.
- Your stage of life influences your personal values and interests.
- Goal setting is a process with many rewards and benefits that allows you to get what you want from life.
- There are short-term, mid-term and long-term goals. They are often stepping stones to meet bigger goals.
- You will create goals in several areas of your life including academic, financial, career and personal.
- The SMART goal setting model is a very effective system for identifying and creating goals.
- A Personal Action Plan can help you define your goals using the SMART goal model.

Journal Assignment

After reading the above content and watching the above videos, take some time to consider each of the questions below and document your thoughts:

1. What is the difference between a fixed and growth mindset when it comes to setting and achieving goals? Identify an example of each in your own life.
2. What are some common obstacles that might prevent someone from achieving a goal? How can a growth mindset help overcome these obstacles?
3. Should people focus more on long-term or short-term goals when working to develop a growth mindset? Why?
4. Imagine you set a goal but don't achieve it on your first attempt. What adjustments could you make while maintaining a growth mindset?
5. How do you think goal setting can impact your motivation, resilience, and self-confidence over time?

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6.5: Time Management

Manage Your Time



Learning Objectives

By the end of this section, you will be able to:

- Understand the relationship between goals and time management.
- Consider how your priorities impact your time.
- Identify your time management personality.
- Assess your current use of time.
- Understand the basic principles of time management and planning.
- Use a calendar planner and daily to-do list to plan ahead for study tasks and manage your time effectively.
- Explore time management tips and strategies.
- Identify procrastination behaviors and strategies to avoid them.

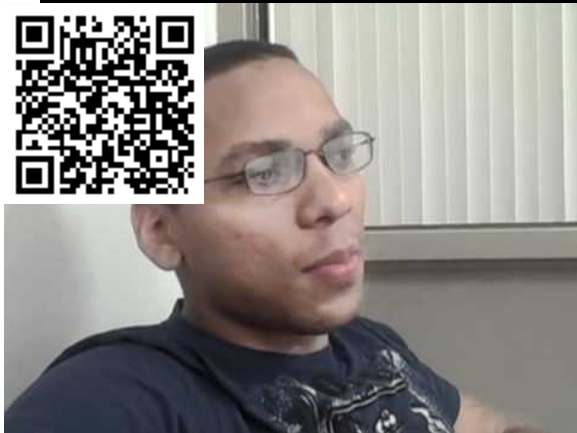
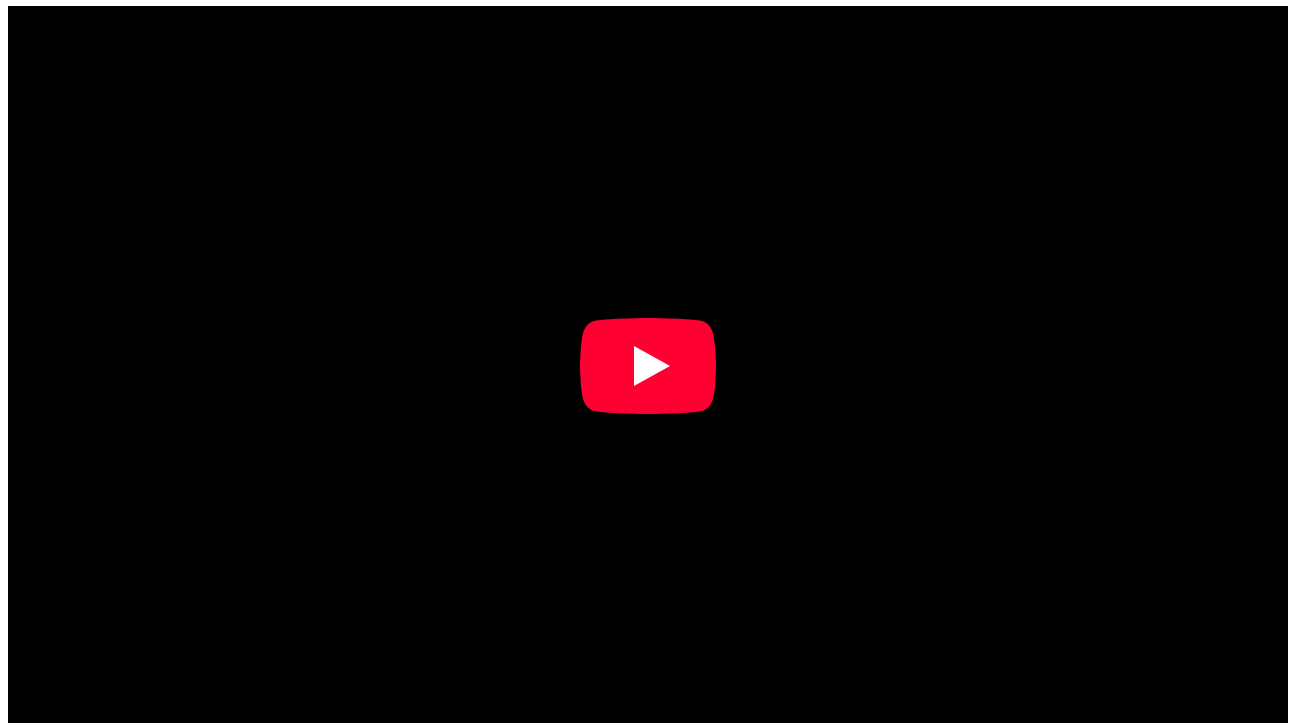
Goals and Time

Now that you have spent some time exploring your values and your goals, you can easily see how you need to manage your time well in order to accomplish your goals. When you have a long-term goal and break it down into mid-term and short-term goals, it leads to the question, “What do I need to do today in order to achieve my goal?” This question is at the heart of time management. Your goals guide how you spend your time and resources. Having clearly defined goals with specific deadlines leads you to be deliberate in planning your time and makes it easier to establish an effective time management system.

As most students discover, college is not the same as high school. For many students, college is the first time they are “on their own” in an environment filled with opportunity. And while this can be exciting, you may find that social opportunities and job responsibilities conflict with academic expectations. For example, a free day before an exam, if not wisely spent, can spell trouble for doing well on the exam. It is easy to fall behind when there are so many choices and freedoms.

One of the main goals of a college education is learning how to learn. In this section, we zoom in on learning how to skillfully manage your time. To be successful in college, it’s imperative to be able to effectively manage your time and to manage all aspects of your life including school, work, and social opportunities. Time management isn’t actually difficult, but you do need to learn how to do it well.

In the following Alleyoop Advice video, Alleyoop (Angel Aquino) discusses what many students discover about college: there is a lot of free time—and just as many challenges to balance free time with study time.



Alleyoop Advice: Time Management in College

Identifying Your Priorities

Thinking about your goals gets you started, but it's also important to think about priorities. We often use the word “priorities” to refer to how important something is to us. We might think, *This* is a really important goal, and *that* is less important. Try this experiment: go back to the goals you wrote in the last chapter and see if you can rank each goal as a 1 (top priority), 2 (middle priority), or 3 (lowest priority).

It sounds easy, but do you actually feel comfortable doing that? Maybe you gave a priority 1 to passing your courses and a priority 3 to playing your guitar. So what does that mean—that you never play guitar again, or at least not while in college? Whenever you have an hour free between class and work, you have to study because that's the higher priority? What about all your other goals—do you have to ignore everything that's not a priority 1? And what happens when you have to choose between different goals that are both number 1 priorities?

In reality, priorities don't work quite that way. It doesn't make a lot of sense to try to rank goals as *always* more or less important. The question of priority is really a question of what is more important ***at a specific time***. It is important to do well in your classes, but it's also important to earn money to support yourself and have a social life. You shouldn't have to choose between these, except *at any given time*. Priorities always involve time: what is most important to do *right now*. Time management is mostly a way to juggle priorities so you can meet all your goals.

When you manage your time well, you don't have to ignore some goals completely in order to meet other goals. In other words, you don't have to give up your life when you register for college, but you may need to work on managing your life and time more effectively.

But, time management works only when you're committed to your goals. Attitude and motivation are very important. If you haven't yet developed an attitude for success, all the time management skills in the world won't keep you focused and motivated to succeed.

The Eisenhower Method

One way to help you identify your priorities is with the "Eisenhower Box," a tool to help evaluate urgency and importance. Items may be placed at more precise points within each quadrant.

The "Eisenhower Method" stems from a quote attributed to [Dwight D. Eisenhower](#): "I have two kinds of problems, the urgent and the important. The urgent are not important, and the important are never urgent."

Using the Eisenhower Decision Principle, tasks are evaluated using the criteria important/unimportant and urgent/not urgent, and then placed in according quadrants in an Eisenhower Matrix (also known as an "Eisenhower Box" or "Eisenhower Decision Matrix"). It is important to understand the difference between urgency and importance. An urgent item needs to be dealt with immediately. An item that is important needs to be dealt with but may or may not need to be dealt with immediately. Tasks are then handled as follows:

- 1. Important/Urgent** quadrant items must be taken care of immediately. Examples include:
 - Crises like accidents
 - A flat tire
 - A screaming baby
 - A broken water heater
 - Last minute deadlines
 - Pressing problems
- 2. Important/Not Urgent** quadrant items need to be accomplished but have an end date or due date that isn't urgent or pressing. Examples include:
 - Homework
 - Studying for an upcoming exam
 - Exercise
 - Planning an upcoming trip
 - Time with friends, family, and relationships
- 3. Unimportant/Urgent** quadrant are items that can often feel urgent but they really aren't. Although they may feel like they need to be attended to immediately, they are not very important and can actually wait. Examples include:
 - Text messages
 - Social media alerts
 - Some phone calls
 - Junk mail
- 4. Unimportant/Not Urgent** quadrant are your time wasters, things that are not important and not urgent. Examples include things like:
 - Television
 - Video games
 - Hanging out with friends (not planned social events)
 - Web surfing

	Urgent	Not Urgent
Important	Crying baby Kitchen fire Some calls 1	Exercise Vocation Planning 2
Not Important	3 Interruptions Distractions Other calls	4 Trivia Busy work Time wasters

As you can see, the Urgent/Important category (#1) needs to be attended to first and should top your list of priorities, followed by the Not Urgent/Important category (#2). You can imagine that the Category #1 is a stressful place, with emergencies and crises, and one you would like to avoid. Life will bring you plenty of Category #1 items so try your best to keep things out of that category. Work productively in Category #2 so items don't unnecessarily end up being urgent. For example, a paper or a test shouldn't be urgent, as they aren't last minute crisis. The more you focus on Category #2, the more you accomplish with less stress.

Identify Your Time Management Style

People's attitudes toward time vary widely. One person seems to be always rushing around but actually gets less done than another person who seems unconcerned about time and calmly goes about the day. Since there are so many different "time personalities," it's important to realize how you approach time. Try the following activity to help you identify your personal time management style.

Activity 1: Identify your Time Management Style

The following self-assessment survey can help you determine your time-management personality type. Read each question in the Questions column. Then read the possible responses. Select one response for each question. Each response should reflect what you probably would do in a given situation, not what you think is the "right" answer. Put a checkmark in the My Time Management Type column next to your likely response.

Self-Assessment Survey

QUESTIONS	RESPONSES: Which response most closely matches what you would do? In the right column, check one response (a, b, c or d) for each question.	MY TIME MANAGEMENT TYPE
1 Your instructor just gave your class the prompts for your first essay, which is due in two weeks. How do you proceed from here?	a. Choose a prompt and begin working on a thesis immediately. Better to get it out of the way!	<input type="radio"/> Early bird
	b. Read over the prompts and let them sink in for a week or so. You'll still have one more week to finish the assignment, right?	<input type="radio"/> Balancing act
	c. Read the prompts and maybe start playing around with ideas, but wait to really start writing until the day before. You swear it's all in your head somewhere!	<input type="radio"/> Pressure cooker
	d. Look at the prompts the morning that assignment is due and quickly type up your essay. This makes you late for class, but at least you got it turned in on time.	<input type="radio"/> Improviser

	QUESTIONS	RESPONSES: Which response most closely matches what you would do? In the right column, check one response (a, b, c or d) for each question.	MY TIME MANAGEMENT TYPE
2	You are working on a group assignment that requires you to split up responsibilities with three other classmates. When would you typically finish your part?	<p>a. First. Then you're done and don't have to worry about it. Plus it could give you time in case you want to tweak anything later.</p> <p>b. After one or two of the others have submitted their materials to the group, but definitely not last. You wanted to see how they approached it first.</p> <p>c. Maybe last, but definitely before the assignment due date and hopefully before any of the other group members ask about it.</p> <p>d. Definitely last. You'll wait until everyone else has done their work, so you can make sure you are not duplicating efforts. Whatever, this is why you hate group work.</p>	<p><input type="radio"/> Early bird</p> <p><input type="radio"/> Balancing act</p> <p><input type="radio"/> Pressure cooker</p> <p><input type="radio"/> Improviser</p>
3	Your instructor just shared the instructions for your next assignment and you read them but don't quite understand what he's asking for in a certain part. What would you probably do?	<p>a. Send the instructor an email that afternoon. When he doesn't respond that night, email him again. This is your worst nightmare—you just want to know what he wants!!</p> <p>b. Send him an email asking for clarification, giving yourself enough time to wait for his response and then complete the assignment. Better to be safe than sorry.</p> <p>c. Try to figure it out for yourself. You're pretty sure what he's trying to say, and you'll give it your best shot.</p> <p>d. Don't say anything until after the assignment is due. Other people in the class felt the same way too, probably!</p>	<p><input type="radio"/> Early bird</p> <p><input type="radio"/> Balancing act</p> <p><input type="radio"/> Pressure cooker</p> <p><input type="radio"/> Improviser</p>
4	The course you are taking requires you to post in a weekly discussion forum by Sunday night each week so the class can talk about everyone's posts on Monday. When do you submit your posts?	<p>a. Tuesday night, after the first day of class that week. Then it's out of the way.</p> <p>b. Thursday or Friday night. You want to let the week's discussion sink in a little so you can collect your thoughts.</p> <p>c. Sunday night. You always forget over the weekend!</p> <p>d. Monday at 3 AM. That still counts as Sunday night, right?</p>	<p><input type="radio"/> Early bird</p> <p><input type="radio"/> Balancing act</p> <p><input type="radio"/> Pressure cooker</p> <p><input type="radio"/> Improviser</p>
5	You have an important assignment due Monday morning, and you have a social/work/family obligation that will keep you busy for most of the weekend. It is now the Wednesday before the assignment is due. How would you approach this dilemma?	<p>a. You already finished it yesterday, the day it was assigned. Done!</p> <p>b. You tell yourself that you'll finish it by Friday night, and you manage this by chipping away at it over those 3 days. ...Little. By. Little.</p>	<p><input type="radio"/> Early bird</p> <p><input type="radio"/> Balancing act</p>

QUESTIONS		RESPONSES: Which response most closely matches what you would do? In the right column, check one response (a, b, c or d) for each question.	MY TIME MANAGEMENT TYPE
		c. You tell yourself that you'll finish it by Friday night, so you can have your weekend free, but you still have a little left to do on Sunday—no big deal.	<input type="radio"/> Pressure cooker
		d. You tell yourself that you'll take the weekend off, then stay up late on Sunday or wake up early on Monday to finish it. It's not a final or anything, and you have a life.	<input type="radio"/> Improviser
6	You have to read 150 pages before your next class meeting. You have 4 days to do so. What would you most likely do?	a. 150 pages divided by 4 days means... a little less than 40 pages a day. You like to chunk it this way because then you'll also have time to go over your notes and highlights and come up with questions for the instructor.	<input type="radio"/> Early bird
		b. 150 pages divided by...well ... 2 days (because it's been a long week), means 75 pages a day. Totally doable.	<input type="radio"/> Balancing act
		c. 150 pages, the day before it is due. You did this to yourself, it's fine.	<input type="radio"/> Pressure cooker
		d. How much time does it take to skim the text for keywords and/or find a summary online?	<input type="radio"/> Improviser

Assessing Your Responses

Which of the four basic time-management personality types did you select the most? Which did you select the least? Do you feel like these selections match the student you have been in the past? Has your previous way of doing things worked for you, or do you think it's time for a change? Remember, we can all always improve!

Learn more below about your tendencies. Review traits, strengths, challenges, and tips for success for each of the four time-management personality types.

The Early Bird

- **Traits:** You like to make checklists and feel great satisfaction when you can cross something off of your to-do list. When it comes to assignments, you want to get started as soon as possible (and maybe start brainstorming before that), because it lets you stay in control.
- **Strengths:** You know what you want and are driven to figure out how to achieve it. Motivation is never really a problem for you.
- **Challenges:** Sometimes you can get more caught up in getting things done as quickly as possible and don't give yourself enough time to really mull over issues in all of their complexity.
- **Tips for Success:** You're extremely organized and on top of your schoolwork, so make sure you take the time to really enjoy learning in your classes. Remember, school isn't all deadlines and checkboxes—you also have the opportunity to think about big-picture intellectual problems that don't necessarily have clear answers.

The Balancing Act

- **Traits:** You really know what you're capable of and are ready to do what it takes to get the most out of your classes. Maybe you're naturally gifted in this way or maybe it's a skill that you have developed over time; in any case, you should have the basic organizational skills to succeed in any class, as long as you keep your balance.
- **Strengths:** Your strength really lies in your ability to be well rounded. You may not always complete assignments perfectly every time, but you are remarkably consistent and usually manage to do very well in classes.

- **Challenges:** Because you're so consistent, sometimes you can get in a bit of a rut and begin to coast in class, rather than really challenging yourself.
- **Tips for Success:** Instead of simply doing what works, use each class as an opportunity for growth by engaging thoughtfully with the material and constantly pushing the boundaries of your own expectations for yourself.

The Pressure Cooker

- **Traits:** You always get things done and almost always at the last minute. Hey, it takes time to really come up with good ideas!
- **Strengths:** You work well under pressure, and when you do finally sit down to accomplish a task, you can sit and work for hours. In these times, you can be extremely focused and shut out the rest of the world in order to complete what's needed.
- **Challenges:** You sometimes use your ability to work under pressure as an excuse to procrastinate. Sure, you can really focus when the deadline is tomorrow but is it really the best work you could produce if you had a couple of days of cushion?
- **Tips for Success:** Give yourself small, achievable deadlines, and stick to them. Make sure they're goals that you really could (and would) achieve in a day. Then don't allow yourself to make excuses. You'll find that it's actually a lot more enjoyable to not be stressed out when completing schoolwork. Who would have known?

The Improviser

- **Traits:** You frequently wait until the last minute to do assignments, but it's because you've been able to get away with this habit in many classes. Sometimes you miss an assignment or two, or have to pretend to have done reading that you haven't, but everyone does that sometimes, right?
- **Strengths:** You think quickly on your feet, and while this is a true strength, it also can be a crutch that prevents you from being really successful in a class.
- **Challenges:** As the saying goes, old habits die hard. If you find that you lack a foundation of discipline and personal accountability, it can be difficult to change, especially when the course material becomes challenging or you find yourself struggling to keep up with the pace of the class.
- **Tips for Success:** The good news is you can turn this around! Make a plan to organize your time and materials in a reasonable way, and really stick with it. Also, don't be afraid to ask your instructor for help, but be sure to do it before, rather than after, you fall behind.

People also differ in how they respond to schedule changes. Some go with the flow and accept changes easily, while others function well only when following a planned schedule and may become upset if that schedule changes. If you do not react well to an unexpected disruption in your schedule, plan extra time for catching up if something throws you off. This is all part of understanding your time personality.

Another aspect of your time personality involves the time of day. If you need to concentrate, such as when writing a class paper, are you more alert and focused in the morning, afternoon, or evening? Do you concentrate best when you look forward to a relaxing activity later on, or do you study better when you've finished all other activities? Do you function well if you get up early, or stay up late, to accomplish a task? How does that affect the rest of your day or the next day? Understanding this will help you better plan your study periods.

While you may not be able to change your "time personality," you can learn to manage your time more successfully. The key is to be realistic. The best way to improve your time management is to take an honest look at how you are currently spending your time.

Assess Your Use Of Time

The best way to know how you spend your time is to record what you do all day in a time log, every day for a week, and then add that up. First, you want to take your best guess at how you are currently spending your time so you can compare that with how you are actually spending your time. This helps you identify the areas you need to work on.

Activity 2: Where Does the Time Go?

See if you can account for a week's worth of time. For each of the activity categories listed, make your best estimate of how many hours you spend in a week. (For categories that are about the same every day, just estimate for one day and multiply by seven for that line.)

Organizing Your Time

Category of activity	Estimated Hours per week	Actual Hours per week

Category of activity	Estimated Hours per week	Actual Hours per week
Sleeping		
Eating (including preparing food)		
Personal hygiene (i.e., bathing, etc.)		
Working (employment)		
Volunteer service or internship		
Chores, cleaning, errands, shopping, etc.		
Attending class		
Studying, homework, reading, and researching (outside of class)		
Transportation to work or school		
Getting to classes (walking, biking, etc.)		
Organized group activities (clubs, church services, etc.)		
Time with friends (include television, video games, etc.)		
Attending events (movies, parties, etc.)		
Time alone (include television, video games, surfing the Web, etc.)		
Exercise or sports activities		
Reading for fun or other interests done alone		
Time on the phone, texting, Facebook, Twitter, etc.		
Other—specify: _____		
Other—specify: _____		
TOTAL (168 hours in a week)		

Now use your calculator to total your estimated hours. Is your number larger or smaller than 168, the total number of hours in a week? If your estimate is higher, go back through your list and adjust numbers to be more realistic. But if your estimated hours total fewer than 168, don't just go back and add more time in certain categories. Instead, ponder this question: *Where does the time go?* We'll come back to this question.

Next, print the Time Log and carry it with you throughout the week. Every few hours, fill in what you have been doing. Do this for a week before adding up the times; then enter the total hours in the categories in Activity 2. You might be surprised that you spend a lot more time than you thought just hanging out with friends, or surfing the Web or playing around with Facebook or any of the many other things people do. You might find that you study well early in the morning even though you thought you are a night person, or vice versa. You might learn how long you can continue at a specific task before needing a break.

Time Log

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
6-7 am							
7-8							
8-9							

9-10							
10-11							
11-12							
12-1 pm							
1-2							
2-3							
3-4							
4-5							
5-6							
6-7							
7-8							
8-9							
9-10							
10-11							
11-12							
12-1 am							
1-2							
2-3							
3-4							
4-5							
5-6							

Establishing A Time Management System

Now that you've evaluated how you have done things in the past, you'll want to think about how you might create a schedule for managing your time well going forward. The best schedules have some flexibility built into them, as unexpected situations and circumstances will likely arise during your time as a student.

For every hour in the classroom, college students should spend, on average, about two to three hours on that class reading, studying, writing papers, and so on. Look at the following scenarios to get an idea of how many hours you should be spending on your classes outside of class time.

12 credit hours over a 15-week session = 12 hours a week in class + 24-36 hours outside of class

6 credit hours over a 15-week session = 6 hours a week in class + 12-18 hours outside of class

3 credit hours over a 6-week session = 8 hours a week in class + 16-24 hours outside of class

If you're a full-time student with twelve hours a week in class plus your study time, that 36-42 hours is about the same as a typical full-time job, which is why you are considered to be a full-time student. If you work part-time or have a family, time management skills are even more essential. To succeed in college, everyone has to develop effective strategies for dealing with time.

Look back at the number of hours you wrote in Activity 2 for a week of studying. Do you have two to three hours of study time for every hour in class? Many students begin college not knowing this much time is needed, so don't be surprised if you

underestimated this number of hours. Remember this is just an average amount of study time—you may need more or less for your own courses. To be safe, and to help ensure your success, add another five to ten hours a week for studying.

To reserve this study time, you may need to adjust how much time you spend on other activities. Activity 3 will help you figure out what your typical week should look like.

Activity 3: Where Should Your Time Go?

Plan for the ideal use of a week’s worth of time. Fill in your hours in this order:

1. Hours attending class
2. Study hours (2 times the number of class hours plus 5 or more hours extra)
3. Work, internships, and fixed volunteer time
4. Fixed life activities (sleeping, eating, hygiene, chores, transportation, etc.)

Now subtotal your hours so far and subtract that number from 168. How many hours are left? _____ Then portion out the remaining hours for “discretionary activities” (things you don’t have to do for school, work, or a healthy life).

5. Discretionary activities

Where Should Your Time Go?

CATEGORY OF ACTIVITY	HOURS PER WEEK
Attending class	
Studying, reading, and researching (outside of class)	
Working (employment)	
Transportation to work or school	
Sleeping	
Eating (including preparing food)	
Personal hygiene (i.e., bathing, etc.)	
Chores, cleaning, errands, shopping, etc.	
Volunteer service or internship	
Getting to classes (walking, biking, etc.)	
Subtotal:	
Discretionary activities:	
Organized group activities (clubs, church services, etc.)	
Time with friends (include television, video games, etc.)	
Attending events (movies, parties, etc.)	
Time alone (include television, video games, surfing the Web, etc.)	
Exercise or sports activities	
Hobbies or other interests done alone	
Time on the phone, texting, Facebook, Twitter, etc.	
Other—specify: _____	
Other—specify: _____	

Activity 3 shows most college students that they do actually have plenty of time for their studies without losing sleep or giving up their social life. But you may have less time for discretionary activities, like video games or watching movies, than in the past. *Something, somewhere has to give.* That's part of time management and why it's important to keep your goals and priorities in mind.

Below is an example of a student's weekly schedule, with designated times for class, work and study time.

Kai's Schedule

Since Kai's Spanish class starts his schedule at 9:00 every day, Kai decides to use that as the base for his schedule. He doesn't usually have trouble waking up in the mornings (except on the weekends), so he decides that he can do a bit of studying before class. His Spanish practice is often something he can do while eating or traveling, so this gives him a bit of leniency with his schedule.

Example: Kai's Schedule




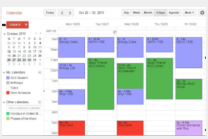
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7:00 AM							
8:00 AM		Spanish 101	Spanish 101	Spanish 101	Spanish 101	Spanish 101	
9:00 AM		Spanish 101	Spanish 101	Spanish 101	Spanish 101	Spanish 101	
10:00 AM		US History I	Spanish 101	US History I	Spanish 101	US History I	
11:00 AM		College Algebra	Intro to Psychology (ends at 12:30)	College Algebra	Intro to Psychology (ends at 12:30)	College Algebra	Work
12:00 PM		Spanish 101		Spanish 101		Spanish 101	
1:00 PM	Spanish 101	Work (start 12:30 end 4:30)	Work	Work (start 12:30 end 4:30)	Work	Work (start 12:30 end 4:30)	Spanish 101
2:00 PM	US History I						Intro to Psych
3:00 PM							
4:00 PM							
5:00 PM		College Algebra		College Algebra		College Algebra	
6:00 PM							
7:00 PM							
8:00 PM		Intro to Psych		Intro to Psych			
9:00 PM			US History I		US History I		

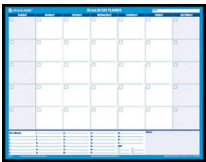
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10:00 PM							

Creating a Planner

Now that you know what you need to be spending your time on, let's work on getting it put into a schedule or calendar. The first thing you want to do is select what type of planner or calendar you want to use. There are several to choose from. The following chart outlines some pros and cons to different systems. online calendars, weekly calendars, monthly calendars and wall calendars.

Different Types of Planners

Type	Example	Cost	Pros	Cons
Weekly Planner		\$5-\$10	<ul style="list-style-type: none"> • Room to write details or multiple items • Comes in a variety of sizes • Affordable • Easy to carry with you • Easy to look ahead • Physically writing things down may help you remember them. • Often includes a To-Do list. 	<ul style="list-style-type: none"> • May be difficult to make changes in. • Have to write repeating events, such as class time • Not always enough room for details or multiple events • Can be lost • Can be forgotten at home
Monthly Planner		\$5-\$15	<ul style="list-style-type: none"> • Comes in a variety of sizes • Affordable • Easy to carry with you • Easy to look ahead • Physically writing things down may help you remember them. • Often includes a To-Do list 	<ul style="list-style-type: none"> • Often large and bulky • Not much room to write details or multiple events • Can be lost • Can be forgotten • Difficult to make changes and can become messy
Daily Planner		\$5-\$10	<ul style="list-style-type: none"> • A lot of room to write details • Allows room for multiple daily events • Often includes a To-Do list. • Affordable • Comes in a variety of sizes • Easy to carry with you 	<ul style="list-style-type: none"> • Can be difficult to look ahead to see what is coming up • Can be lost • Can be forgotten
Electronic Calendar		Free	<ul style="list-style-type: none"> • Set repeating events • Color code events • Set multiple reminders • Add notes • Check by phone or computer so almost always available • Often includes a To-Do list • Have a back-up if lost • Can import other calendars 	<ul style="list-style-type: none"> • Small screen • Checking your phone may distract you • Frequent reminders may become ignored • Easy to make mistakes entering • Difficult to see details when looking ahead

Type	Example	Cost	Pros	Cons
Dry Erase Calendar		\$15 – \$20	<ul style="list-style-type: none"> • Can be monthly or yearly • Large, visually appealing look at your month or year • Reusable • May include a To-Do list 	<ul style="list-style-type: none"> • Hard to see the next month • You carry it with you so may forget to make changes when you get home • Have to re-write things each month • Not much room to write details or multiple events • Can get messy

What Goes in Your Planner?

Now that you have selected your planner, it's time to fill it in. But what goes in it? Well, everything! Start by putting in your top priorities and then move on to your discretionary time.

Priorities

- Class time
- Work Time
- Designated study time (2-3 hours per hour in class)
- Assignment due dates (check your syllabus)
- Exam dates and quizzes (check your syllabus)
- Appointments
- Birthdays of family and friends

Discretionary Time

- Social events
- Parties
- Exercise
- Club activities
- Church activities

Reminders

- Birthdays
- Anniversaries
- Holidays

Your schedule will vary depending on the course you're taking. So pull out your syllabus for each class and try to determine the rhythm of the class by looking at the following factors:

- Will you have tests or exams in this course? When are those scheduled?
- Are there assignments and papers? When are those due?
- Is there any group or collaborative assignments? You'll want to pay particular attention to the timing of any assignment that requires you to work with others.

Remember Your Goals

Does your schedule reflect your goals? Set your short and long-term goals accordingly. Ask yourself the following:

- What needs to get done today?
- What needs to get done this week?
- What needs to get done by the end the first month of the semester?
- What needs to get done by the end the second month of the semester?
- What needs to get done by the end of the semester?

Don't try to micromanage your schedule. Don't try to estimate exactly how many minutes you'll need two weeks from today to read a given chapter in a given textbook. Instead, just choose the blocks of time you will use for your studies. Don't yet write in the

exact study activity, just reserve the block. Next, look at the major deadlines for projects and exams that you wrote in earlier. Estimate how much time you may need for each and work backward on the schedule from the due date.

Plan Backwards

As a college student, you will likely have big assignments, papers, or projects that you are expected to work on throughout the semester. These are often tricky for students to schedule since it isn't a regularly occurring event, like a weekly quiz or a homework assignment. These big projects often feel overwhelming so students have a tendency to shy away from them and procrastinate on them. This often results in a lot of last-minute stress and panic when the deadline is looming. A way to plan for these big projects is to plan backward. Start at the final project and then figure out all the steps that come before it and assign due dates for yourself. For example, you have a research paper due May 1. Start there!

Assignments and Due Date

Assignment	Due Date
Research Paper Due	May 1
Final Draft	April 28
Rough Draft	April 21
Final Outline	April 7
Find sources	March 24
Thesis statement	March 17
Select topic	March 10

You have now created a series of assignments for yourself that will keep you on track for your project. Put these dates in your planner the same way you would any other assignment.

Establish A To-Do List

People use to-do lists in different ways, and you should find what works best for you. As with your planner, consistent use of your to-do list will make it an effective habit.

Some people prefer not to carry their planner everywhere but instead, copy the key information for the day onto a to-do list. Using this approach, your daily to-do list starts out with your key scheduled activities and then adds other things you hope to do today. This is a good fit for those that prefer to keep a wall calendar at home rather than carry their planner with them.

Some people use their to-do list only for things not included in their planners, such as short errands, phone calls or e-mail, and the like. This still includes important things, but they're not scheduled out for specific times like your planner is.

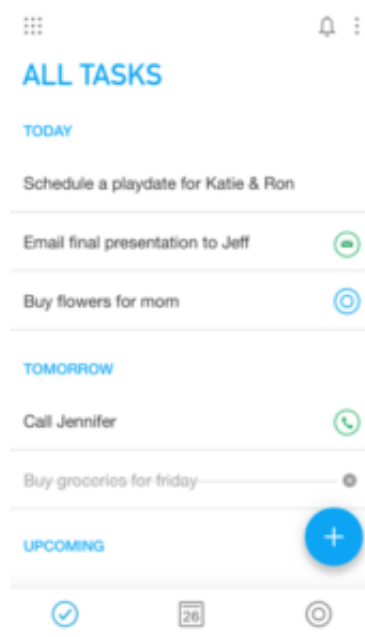
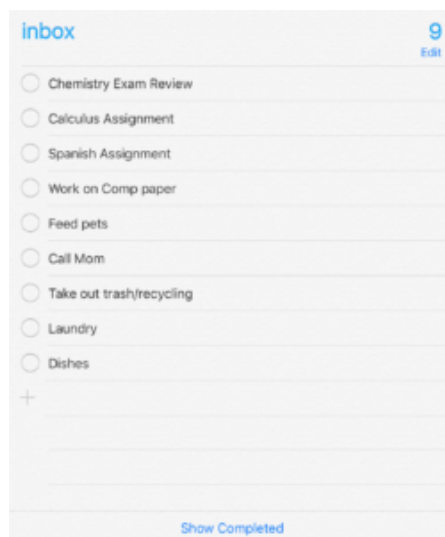
Although we call it a daily list, the to-do list can also include things you may not get to today but don't want to forget about. Keeping these things on the list, even if they're a low priority, helps ensure that eventually, you'll get to it.

Just as there are several options for planners, there are different types of to-do lists. Check your planner to see if it has one incorporated. If not, get a small notebook or pad of paper that you will designate as your to-do list. Of course, there's always an app for that! Your smartphone likely came with a Reminder App or another type of To-Do List app. There are also many free apps to choose from and there are apps to help you manage your homework and assignments. Take a few minutes to look through your options to pick the best one for you.

Your To-Do list should be a reflection of your goals and priorities and should support your planner. Your To-Do List should answer the question, "What do I have to do today, this week, this month?"

Here are some examples of different to-do lists.

 To Do List



Use whatever format works best for you to prioritize or highlight the most important activities.

Here are some more tips for effectively using your daily to-do list:

- Be specific: “Read history chapter 2 (30 pages)”—not “History homework.”
- Put important things high on your list where you’ll see them every time you check the list.
- Make your list at the same time every day so that it becomes a habit.
- Don’t make your list overwhelming. If you added *everything* you eventually need to do, you could end up with so many things on the list that you’d never read through them all. If you worry you might forget something, write it in the margin of your planner’s page a week or two away.
- Use your list. Lists often include little things that may take only a few minutes to do, so check your list anytime during the day you have a moment free.
- Cross out or check off things after you’ve done them—doing this becomes rewarding.
- Don’t use your to-do list to procrastinate. Don’t pull it out to find something else you just “have” to do instead of studying!

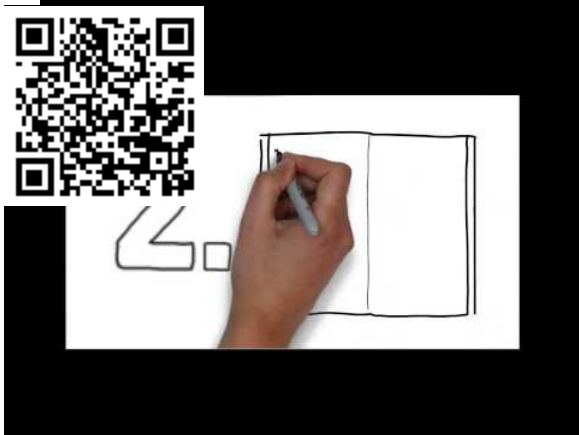
Time Management Strategies

Following are some strategies you can begin using immediately to make the most of your time:

- **Prepare to be successful.** When planning ahead for studying, think yourself into the right mood. Focus on the positive. “When I get these chapters read tonight, I’ll be ahead in studying for the next test, and I’ll also have plenty of time tomorrow to do X.” *Visualize* yourself studying well!
- **Use your best—and most appropriate—time of day.** Different tasks require different mental skills. Some kinds of studying you may be able to start first thing in the morning as you wake, while others need your most alert moments at another time.
- **Break up large projects into small pieces.** Whether it’s writing a paper for class, studying for a final exam, or reading a long assignment or full book, students often feel daunted at the beginning of a large project. It’s easier to get going if you break it up into stages that you schedule at separate times—and then begin with the first section that requires only an hour or two.
- **Do the most important studying first.** When two or more things require your attention, do the more crucial one first. If something happens and you can’t complete everything, you’ll suffer less if the most crucial work is done.
- **If you have trouble getting started, do an easier task first.** Like large tasks, complex or difficult ones can be daunting. If you can’t get going, switch to an easier task you can accomplish quickly. That will give you momentum, and often you feel more confident in tackling the difficult task after being successful in the first one.
- **If you’re feeling overwhelmed and stressed because you have too much to do, revisit your time planner.** Sometimes it’s hard to get started if you keep thinking about other things you need to get done. Review your schedule for the next few days and make sure everything important is scheduled, then relax and concentrate on the task at hand.

- **If you're really floundering, talk to someone.** Maybe you just don't understand what you should be doing. Talk to your instructor or another student in the class to get back on track.
- **Take a break.** We all need breaks to help us concentrate without becoming fatigued and burned out. As a general rule, a short break every hour or so is effective in helping recharge your study energy. Get up and move around to get your blood flowing, clear your thoughts, and work off stress.
- **Use unscheduled times to work ahead.** You've scheduled that hundred pages of reading for later today, but you have the textbook with you as you're waiting for the bus. Start reading now, or flip through the chapter to get a sense of what you'll be reading later. Either way, you'll save time later. You may be amazed at how much studying you can get done during downtimes throughout the day.
- **Keep your momentum.** Prevent distractions, such as multitasking, that will only slow you down. Check for messages, for example, only at scheduled break times.
- **Reward yourself.** It's not easy to sit still for hours of studying. When you successfully complete the task, you should feel good and deserve a small reward. A healthy snack, a quick video game session, or social activity can help you feel even better about your successful use of time.
- **Just say no.** Always tell others nearby when you're studying, to reduce the chances of being interrupted. Still, interruptions happen, and if you are in a situation where you are frequently interrupted by a family member, spouse, roommate, or friend, it helps to have your "no" prepared in advance: "No, I *really* have to be ready for this test" or "That's a great idea, but let's do it tomorrow—I *just can't* today." You shouldn't feel bad about saying no—especially if you told that person in advance that you needed to study.
- **Have a life.** Never schedule your day or week so full of work and study that you have no time at all for yourself, your family and friends, and your larger life.
- **Use a calendar planner and a daily to-do list.**

Watch this supplemental video, College Survival Tips: Time Management for Beginners by MyCollegePalTeam6, for a brief re-cap of effective time management strategies.



College Survival Tips: Time Management for Beginners

Time Management Tips for Students Who Work

If you're both working and taking classes, you seldom have large blocks of free time. Avoid temptations to stay up very late studying, for losing sleep can lead to a downward spiral in performance at both work and school. Instead, try to follow these guidelines:

- If possible, adjust your work or sleep hours so that you don't spend your most productive times at work. If your job offers flex time, arrange your schedule to be free to study at times when you perform best.
- Try to arrange your class and work schedules to minimize commuting time. If you are a part-time student taking two classes, taking classes back-to-back two or three days a week uses less time than spreading them out over four or five days. Working four ten-hour days rather than five eight-hour days reduces time lost to travel, getting ready for work, and so on.
- If you can't arrange an effective schedule for classes and work, consider online courses that allow you to do most of the work on your own time.
- Use your daily and weekly planner conscientiously. Anytime you have thirty minutes or more free, schedule a study activity.
- Consider your "body clock" when you schedule activities. Plan easier tasks for those times when you're often fatigued and reserve alert times for more demanding tasks.
- Look for any "hidden" time potentials. Maybe you prefer the thirty-minute drive to work over a forty-five-minute train ride. But if you can read on the train, that's a gain of ninety minutes every day at the cost of thirty minutes longer travel time. An hour a

day can make a huge difference in your studies.

- Can you do quick study tasks during slow times at work? Take your class notes with you and use even five minutes of free time wisely.
- Remember your long-term goals. You need to work, but you also want to finish your college program. If you have the opportunity to volunteer for some overtime, consider whether it's really worth it. Sure, the extra money would help, but could the extra time put you at risk for not doing well in your classes?
- Be as organized on the job as you are academically. Use your planner and to-do list for work matters, too. The better organized you are at work, the less stress you'll feel—and the more successful you'll be as a student also.
- If you have a family as well as a job, your time is even more limited. In addition to the previous tips, try some of the strategies that follow.

Time Management Tips for Students with Family

Living with family members often introduces additional time stresses. You may have family obligations that require careful time management. Use all the strategies described earlier, including family time in your daily plans the same as you would hours spent at work. Don't assume that you'll be "free" every hour you're home, because family events or a family member's need for your assistance may occur at unexpected times. Schedule your important academic work well ahead and in blocks of time you control. See also the earlier suggestions for controlling your space: you may need to use the library or another space to ensure you are not interrupted or distracted during important study times.

Students with their own families are likely to feel time pressures. After all, you can't just tell your partner or kids that you'll see them in a couple years when you're not so busy with job and college! In addition to all the planning and study strategies discussed so far, you also need to manage your family relationships and time spent with family. While there's no magical solution for making more hours in the day, even with this added time pressure there are ways to balance your life well:

- Talk everything over with your family. If you're going back to school, your family members may not have realized changes will occur. Don't let them be shocked by sudden household changes. Keep communication lines open so that your partner and children feel they're together with you in this new adventure. Eventually, you will need their support.
- Work to enjoy your time together, whatever you're doing. You may not have as much time together as previously, but cherish the time you do have—even if it's washing dishes together or cleaning house. If you've been studying for two hours and need a break, spend the next ten minutes with family instead of checking e-mail or watching television. Ultimately, the important thing is *being together*, not going out to movies or dinners or the special things you used to do when you had more time. Look forward to being with family and appreciate every moment you are together, and they will share your attitude.

Overcoming Procrastination

Procrastination Checklist

Do any of the following descriptions apply to you?

- My paper is due in two days and I haven't really started writing it yet.
- I've had to pull an all-nighter to get an assignment done on time.
- I've turned in an assignment late or asked for an extension when I really didn't have a good excuse not to get it done on time.
- I've worked right up to the minute an assignment was due.
- I've underestimated how long a reading assignment would take and didn't finish it in time for class.
- I've relied on the Internet for information (like a summary of a concept or a book) because I didn't finish the reading on time.

If these sound like issues you've struggled with in the past, you might want to consider whether you have the tendency to procrastinate and how you want to deal with it in your future classes. You're already spending a lot of time, energy, and money on the classes you're taking—don't let all of that go to waste!

Procrastination is a way of thinking that lets one put off doing something that should be done now. This can happen to anyone at any time. It's like a voice inside your head keeps coming up with these brilliant ideas for things to do right now other than studying: "I really ought to get this room cleaned up before I study" or "I can study anytime, but tonight's the only chance I have to do X." That voice is also very good at rationalizing: "I really don't need to read that chapter now; I'll have plenty of time tomorrow at lunch...."

Procrastination is very powerful. Some people battle it daily, others only occasionally. Most college students procrastinate often, and about half say they need help to avoid procrastination. Procrastination can threaten one's ability to do well on an assignment or test.

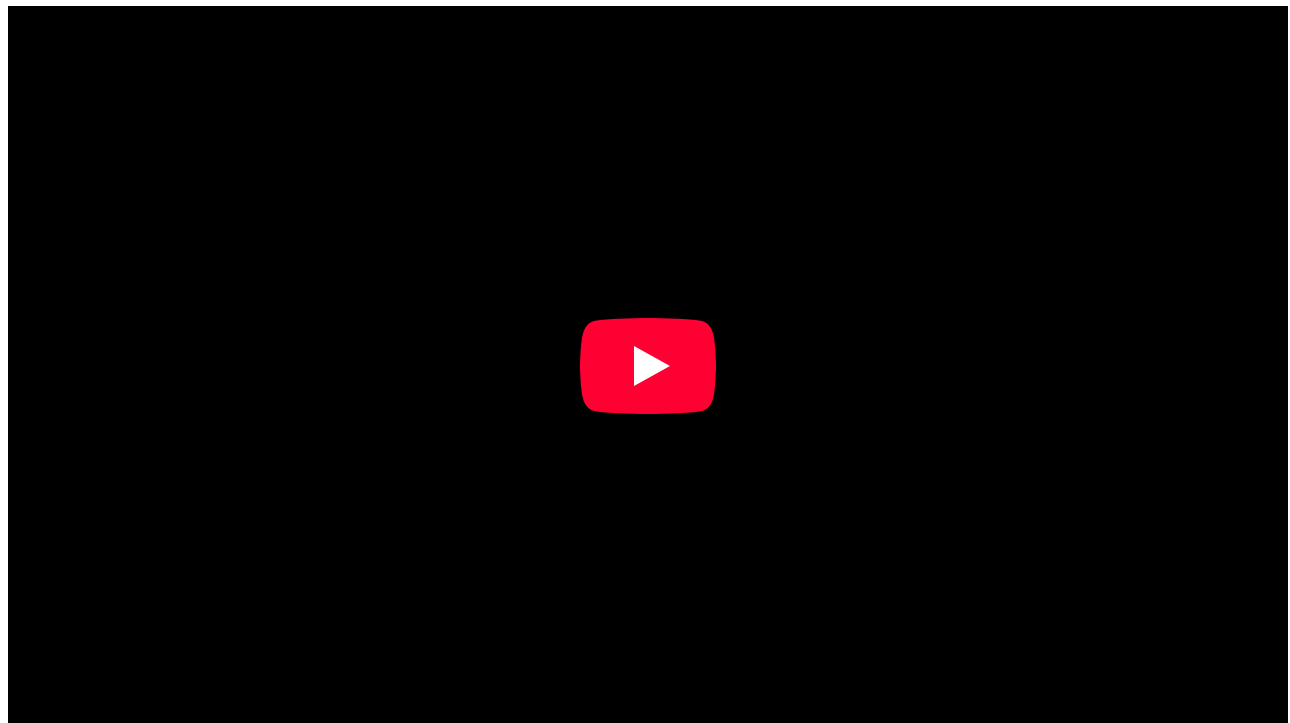
People procrastinate for different reasons. Some people are too relaxed in their priorities, seldom worry, and easily put off responsibilities. Others worry constantly, and that stress keeps them from focusing on the task at hand. Some procrastinate because they fear failure; others procrastinate because they fear success or are so perfectionistic that they don't want to let themselves down. Some are dreamers. Many different factors are involved, and there are different styles of procrastinating.

Strategies to Combat Procrastination

Just as there are different causes, there are different possible solutions to procrastination. Different strategies work for different people. The time management strategies described earlier can help you avoid procrastination. Because this is a psychological issue, some additional psychological strategies can also help:

- Since procrastination is usually a habit, accept that and work on breaking it as you would any other bad habit: one day at a time. Know that every time you overcome feelings of procrastination, the habit becomes weaker and eventually, you'll have a new habit of being able to start studying right away.
- Schedule times for studying using a daily or weekly planner. Commit to your study schedule in the same way you commit to other obligations like class time or school. Carry it with you and look at it often. Just being aware of the time and what you need to do today can help you get organized and stay on track.
- If you keep thinking of something else you might forget to do later (making you feel like you "must" do it now), write yourself a note about it for later and get it out of your mind.
- Counter a negative with a positive. If you're procrastinating because you're not looking forward to a certain task, try to think of the positive future results of doing the work, like getting a good grade or raising your GPA.
- Counter a negative with a worse negative. If thinking about the positive results of completing the task doesn't motivate you to get started, think about what could happen if you keep procrastinating. You'll have to study tomorrow instead of doing something fun you had planned. Or you could fail the test. Some people can jolt themselves right out of procrastination.
- On the other hand, fear causes procrastination in some people—so don't dwell on the thought of failing. If you're studying for a test, and you're so afraid of failing it that you can't focus on studying and you start procrastinating, try to put things in perspective. Even if it's your most difficult class and you don't understand *everything* about the topic, that doesn't mean you'll fail, even if you may not receive an A or a B.
- Study with a motivated friend. Form a study group with other students who are motivated and won't procrastinate along with you. You'll learn good habits from them while getting the work done now.
- Keep your studying "bite-sized": When confronted with 150 pages of reading or 50 problems to solve, it's natural to feel overwhelmed. Try breaking it down: What if you decide that you will read for 45 minutes or that you will solve 10 problems? That sounds much more manageable.
- Turn off your phone, close your chat windows, and block distracting Web sites. Treat your studying as if you're in a movie theater—just turn it off.
- Set up a reward system: If you read for 40 minutes, you can check your phone for 5 minutes. But keep in mind that reward-based systems only work if you stick to an honor system.
- Study in a place reserved for studying ONLY. Your bedroom may have too many distractions (or temptations, such as taking a nap), so it may be best to avoid it when you're working on school assignments.
- Use checklists: Make your incremental accomplishments visible. Some people take great satisfaction and motivation from checking items off a to-do list. Be very specific when creating this list, and clearly describe each task one step at a time.
- Get help. If you really can't stay on track with your study schedule, or if you're always putting things off until the last minute, see a college counselor. They have lots of experience with this common student problem and can help you find ways to overcome this habit.

In the following video, Joseph Clough shares key strategies for conquering procrastination once and for all.



Overcome Procrastination For Good!

Pomodoro Technique

A well-known technique for managing time that can help with procrastination is called the *Pomodoro Technique*, developed by Francesco Cirillo in the 1980s and named after the popular tomato-shaped kitchen timer (*pomodoro* means “tomato” in Italian.) This simple technique is a method of managing procrastination by breaking down your work periods into small, manageable units. The system operates on the belief that by dividing your work and breaks into regular, short increments you can avoid feeling overwhelmed by a looming task while also avoiding burn out.

Here are the basics:

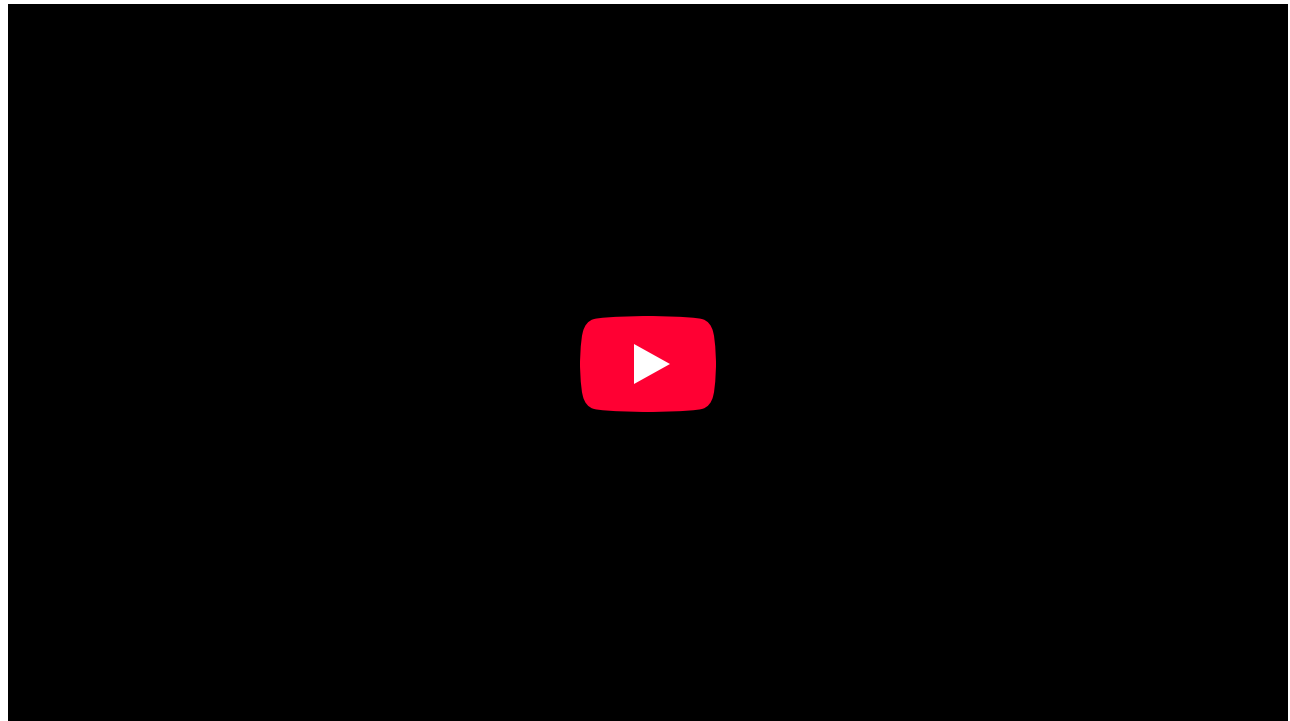
- Consider in advance how many pomodoros you might need to achieve your task.
 - Set a timer for 25 minutes, and start your task.
 - It doesn't have to be a tomato timer. You can use your phone timer (but put it on Do Not Disturb.)
 - There are several online versions or apps for Pomodoro Timers – do a quick search to find one that works best for you.
 - It doesn't have to be 25 minutes, you can tweak this as you get more comfortable with the method.
- If a distraction pops into your head, write it down and immediately return to your task.
- When the buzzer rings, you've completed one increment, also known as one pomodoro.
- Take a five-minute break. You can check the distractions that popped into your head, stretch, grab a cup of tea, etc.

- After four pomodoros, take a fifteen- to thirty-minute break.
- Repeat!

 Chart describing Pomodoro Technique

Give it a try if you're interested in breaking your studying into manageable tomato-sized bites while developing a greater understanding of time management and how long it will take to complete a task.

Watch this supplemental video that explains the Pomodoro Technique.



Pomodoro Technique

Key Takeaways

- Your values help shape your goals and your goals help shape your time management.
- Identifying your priorities is an important first step to creating an effective time management system.
- Models like The Eisenhower Method help you prioritize and avoid unnecessarily stressful situations.
- There are unique Time Management Styles and knowing yours will help you create your own system.
- Having an accurate snapshot of how you currently spend your time is the first step in creating an effective time management system.
- Once you know how you spend your time, you can make a specific plan for how you want to spend your time.

- There are different types of planners, including hard-copy and electronic. Find a planner that works best for you and your preferences and habits.
- Your planner should reflect your values, goals, and priorities. It should include class time, work time, appointments, due dates, exams, and reminders of special dates.
- For big projects, plan backward to ensure you have enough time planned for each step.
- There are several options for To-Do Lists including paper and electronic choices. Find a system that works with your planner and that you will actively use.
- Implement Time Management Strategies to support your success and ultimately support your goals.
- Understand procrastination and the reasons you personally procrastinate. Use this information to incorporate proactive strategies to help you avoid procrastinating.

Avoiding Time Traps

Now that you have a better understanding of how you are spending your time, write a journal entry that identifies your time traps and what strategies you can implement to overcome those time traps.

What is a time trap? A time trap is something you end up spending a lot of time that doesn't support your goals or priorities. They take up your time, energy and focus if you let them. The way to avoid time traps is to be aware of what your personal time traps are and have a plan for how you will avoid or reduce them. We all have our own personal time traps. What are yours? To help you get started, here's a list of some common time traps:

- Web surfing
- Streaming online videos
- Video games
- Social media
- Checking your phone for texts or alerts
- Television
- Sleeping unnecessarily
- Hanging out with friends when there's nothing really happening
- Watching movies from streaming services

Directions

Look at your Time Log from Activity #2. What were your two most common time traps? How did these time traps distract you from your priorities?

For each of your two time traps, come up with two specific plans to effectively avoid or reduce those time traps.

What time management strategies can you implement that can support your plans to avoid your time traps?

Journal Assignment

After reading the above content and watching the above videos, take some time to consider each of the questions below and document your thoughts:

1. Do you find yourself focusing more on getting things perfect or making progress? How can managing your time more effectively help you embrace learning from mistakes?
2. Do deadlines tend to motivate you or discourage you? How can you adjust your approach to support a growth mindset?
3. How do you react when a task takes longer than expected? What do you think this reveals about your mindset, and how can you adjust your approach?
4. What are your biggest distractions when working (or completing homework)? How can managing these distractions help you to stay committed to learning and improvement?
5. Do you often compare your progress to others? How can managing your time effectively help you to focus on your personal growth instead?
6. If you could give advice to your past self about time management, what would it be? How can you apply that advice moving forward?

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6.6: Community Involvement

How Volunteering Can Help You Cultivate a Growth Mindset



Read the article below to consider the impact that volunteering can have on you cultivating a growth mindset:

The Impact of Volunteering on Personal Growth

Volunteering is more than just a way to give back; it also has profound effects on personal growth. Engaging in volunteer work can lead to significant development in various aspects of your life. Here's a look at how volunteering contributes to personal growth:

1. Enhanced Self-Awareness

Discovering Strengths and Weaknesses: Volunteering often challenges individuals to step outside their comfort zones, leading to a better understanding of their strengths and areas for improvement. **Clarifying Values:** Working with diverse groups and causes can help clarify personal values and priorities, leading to greater self-awareness and purpose.

2. Improved Emotional Intelligence

Empathy Development: Volunteering allows individuals to connect with people from different backgrounds and situations, fostering empathy and understanding. **Emotional Resilience:** Facing various challenges and working through them can build emotional resilience, helping you handle stress and adversity better.

3. Enhanced Communication Skills

Interpersonal Skills: Volunteering often involves interacting with diverse individuals, improving your ability to communicate effectively and build relationships. **Active Listening:** Engaging with people in need teaches active listening skills, helping you understand and respond to others more effectively.

4. Increased Self-Esteem and Confidence

Sense of Accomplishment: Successfully completing volunteer tasks and contributing to meaningful causes boosts self-esteem and confidence in your abilities. **Recognition and Feedback:** Positive feedback and recognition from those you help can further enhance your self-worth and confidence.

5. Expanded Professional Skills

Skill Development: Volunteering provides opportunities to develop and refine skills such as project management, teamwork, and problem-solving, which can be valuable in professional settings. **Networking Opportunities:** Connecting with professionals and fellow volunteers can open doors to new career opportunities and provide valuable contacts in your field.

6. Broadened Perspectives

Cultural Awareness: Volunteering with diverse groups exposes you to different cultures, viewpoints, and lifestyles, broadening your perspective and increasing cultural sensitivity. **Understanding Social Issues:** Working on various projects helps you gain a

deeper understanding of social issues and challenges faced by different communities.

7. Increased Sense of Purpose

Finding Meaning: Contributing to causes you care about provides a sense of purpose and fulfillment, helping you align your actions with your values. **Goal Setting:** Volunteer work often involves setting and achieving goals, which can enhance your sense of direction and motivation in both personal and professional life.

8. Development of Leadership Skills

Taking Initiative: Volunteering can provide opportunities to lead projects, manage teams, and take initiative, helping you develop and refine leadership skills. **Decision-Making:** Making decisions and solving problems in a volunteer setting can enhance your decision-making abilities and confidence in leadership roles.

9. Strengthened Problem-Solving Abilities

Creative Solutions: Volunteering often involves tackling challenges with limited resources, fostering creativity and innovative problem-solving skills. **Adaptability:** Navigating unexpected situations and adapting to changing needs improves your ability to think on your feet and handle complex problems.

10. Fostering a Growth Mindset

Embracing Learning: Volunteering encourages a growth mindset by presenting opportunities for continuous learning and personal development. **Resilience Building:** Facing and overcoming challenges in volunteer work fosters resilience and a positive attitude towards personal growth and change.

11. Enhanced Teamwork Skills

Collaboration: Working with others towards a common goal enhances your ability to collaborate effectively and understand different team dynamics. **Conflict Resolution:** Volunteering in diverse teams can teach you valuable skills in managing and resolving conflicts, promoting a positive team environment.

12. Increased Community Engagement

Connecting with Others: Volunteering helps you build connections with your community and engage more deeply in local issues and initiatives. **Building Relationships:** Forming relationships with fellow volunteers and community members enriches your social network and sense of belonging.

Conclusion

Volunteering offers a wealth of benefits for personal growth, including enhanced self-awareness, improved emotional intelligence, and increased confidence. By providing opportunities for skill development, broadening perspectives, and fostering a sense of purpose, volunteering plays a crucial role in shaping and enriching your personal development journey. Embrace the opportunity to grow both personally and professionally through meaningful volunteer experiences.

Source

[The Impact of Volunteering on Personal Growth](#), LAVOPS (Website). Accessed: 1/22/2025.

Journal Assignment

After reading the above, take some time to consider each of the questions below and document your thoughts:

1. How do you think volunteering could help you identify areas for personal improvement?
 2. What skills do you want to develop for your future career? How could community service help you to gain hands-on experience in those areas?
 3. How comfortable are you with adapting to unexpected challenges? How do you think community involvement could help you improve your adaptability?
 - 4a. Identify 3 community service (volunteering) activities you would be interested in pursuing.
 - 4b. Explain why each option interests you **and** how it would promote a growth mindset for YOU.
-

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6.7: Persistence During Stressful Times

Stress Management

Being in control of your life and having realistic expectations about your day-to-day challenges are the keys to stress management, which is perhaps the most important ingredient to living a happy, healthy and rewarding life. —Marilu Henner, actress

Stress

As a student, you're probably plenty familiar with the experience of stress—a condition characterized by symptoms of physical or emotional tension. What you may not know is that it's a natural response of the mind and body to a situation in which a person feels threatened or anxious. Stress can be positive (the anticipation of preparing for a wedding) or negative (dealing with a natural disaster). As a college student, it may feel like stress is a persistent fact of life. While everyone experiences stress at times, a prolonged bout of it can affect your health and ability to cope with life. That's why social support and self-care are important. They can help you see your problems in perspective . . . and the stressful feelings ease up.

Sometimes stress can be good. For instance, it can help you develop the skills needed to manage potentially challenging or threatening situations in life. However, stress can be harmful when it is severe enough to make you feel overwhelmed and out of control. Strong emotions like fear, sadness, or other symptoms of depression are normal, as long as they are temporary and don't interfere with daily activities. If these emotions last too long or cause other problems, it's a different story.

Signs and Effects of Stress

Physical or emotional tension are often signs of stress. They can be reactions to a situation that causes you to feel threatened or anxious. The following are all common symptoms of stress:

- Disbelief and shock
- Tension and irritability
- Fear and anxiety about the future
- Difficulty making decisions
- Being numb to one's feelings
- Loss of interest in normal activities
- Loss of appetite (or increased appetite)
- Nightmares and recurring thoughts about a particular event
- Anger
- Increased use of alcohol and drugs
- Sadness and other symptoms of depression
- Feeling powerless
- Crying
- Sleep problems
- Headaches, back pains, and stomach problems
- Trouble concentrating

It's not only unpleasant to live with the tension and symptoms of ongoing stress; it's actually harmful to your body, too. Chronic stress can impair your immune system and disrupt almost all of your body's processes, leading to increased risk of numerous health problems, including anxiety, depression, digestive problems, heart disease, sleep problems, weight gain, and/or memory and concentration impairment.³

That's why it's so important to learn healthy ways of coping with the stressors in your life.

Ways of Managing Stress

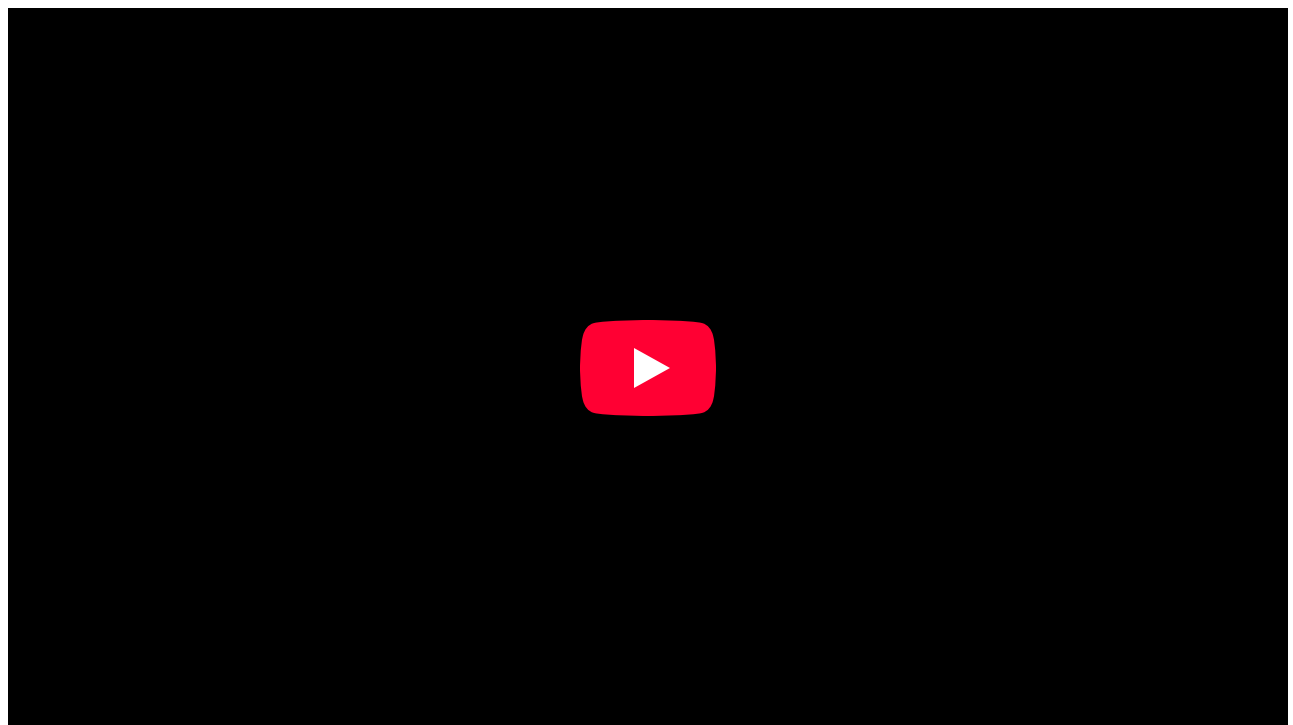


The best strategy for managing stress is by taking care of yourself in the following ways:

- **Avoid drugs and alcohol.** They may seem to be a temporary fix to feel better, but in the long run, they can create more problems and add to your stress instead of taking it away.
- **Manage your time.** Work on prioritizing and scheduling your commitments. This will help you feel in better control of your life which, in turn, will mean less stress.
- **Find support.** Seek help from a friend, family member, partner, counselor, doctor, or clergy person. Having a sympathetic listening ear and talking about your problems and stress really can lighten the burden.
- **Connect socially.** When you feel stressed, it's easy to isolate yourself. Try to resist this impulse and stay connected. Make time to enjoy being with classmates, friends, and family; try to schedule study breaks that you can take with other people.
- **Slow down and cut out distractions for a while.** Take a break from your phone, email, and social media.
- **Take care of your health.** Eat well, exercise regularly, get plenty of sleep, try a relaxation technique (such as meditation or yoga), and maintain a normal, predictable routine.

Not surprisingly, these techniques are similar to those recommended for supporting good mental health in general. If the self-care techniques listed above aren't enough and stress is seriously interfering with your studies or life, don't be afraid to get help. The student health center and college counselors are both good resources.

Stress isn't always all bad. A little bit of stress can motivate you to do well on your exams, assignments, and work. Watch this supplemental video on How to Make Stress Your Friend, a TED Talk by Kelly McGonigal.



Why Stress Isn't Always Bad

Stress Management Plan

Complete the following activity to assess your stress levels and formulate solutions to help reduce it.

ACTIVITY: My Stress Management Plan

My Key Symptoms of Stress

(List major physical, emotional, mental, social, and spiritual symptoms)

My Key Sources of Stress

(Consider internal, external, academic, job, interpersonal, and social stressors)

My Solutions to Stress

(Formulate some clear, specific strategies you will commit to applying to reduce or resolve stressors over the next week)

My Results

(After one week, give a candid, honest assessment of what you did and did not do to implement your stress management plan and the impact this has had on the level of stress in your life)

Journal Assignment

After reading the above content and watching the above video, take some time to consider each of the questions below and document your thoughts:

1. What are some stressors that might challenge YOUR ability to maintain a growth mindset?
2. How can adopting a growth mindset help you reframe stressful situations as opportunities for learning and development?
3. How can viewing mistakes as part of the learning process help to reduce stress in high-pressure situations (like presentations, job interviews, etc.)?
4. What role does resilience play in stress management, and how does a growth mindset contribute to building resilience?
5. What practical steps will you take to integrate stress management techniques into your daily routine to support a long-term growth mindset?

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 - 6.5: Time Management - *CC BY 4.0*
 - 6.6: Community Involvement - *CC BY 4.0*
 - 6.7: Persistence During Stressful Times - *CC BY 4.0*
- Back Matter - *CC BY 4.0*
 - Index - *CC BY 4.0*
 - Glossary - *CC BY 4.0*
 - Detailed Licensing - *CC BY 4.0*
 - Detailed Licensing - *Undeclared*