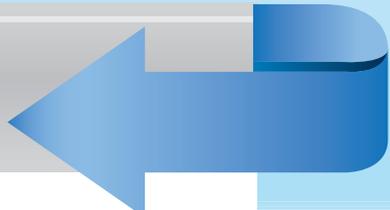


Module 2



Duration: 55 minutes

Mapping the Future

This module is designed to make high school students aware of the changing nature of work and career planning in the 21st century.

Objectives

At the end of this module, students will be able to:

- Describe at least three ways in which work will be different for them, as compared to that of their grandparents, parents, or other older adults.
- State and describe at least three characteristics of career planning in the 21st century.

Module 2: Overview

Components

- **Introduction: Using Online Sources for Information About Change**
5 minutes
- **Activity 5: What's New?**
25 minutes
- **Activity 6: Then and Now**
15 minutes
- **Mini-Lecture and Discussion: Career Planning in the 21st Century**
10 minutes

Facilitator Preparation

- Read the lesson plan and resource material.
- Duplicate materials for Activity 5: What's New? and Activity 6: Then and Now.
- Arrange for use of a computer lab, ideally with one computer per student; alternatively, bring in copies of a recent newspaper or journal articles discussing changes in the workplace.
- Make arrangements to show the PowerPoint presentation. This presentation can be accessed online from the ADMS.

Homework Assignment

Using the worksheet provided, high school students are asked to write down at least five decisions that they make between now and the next session. As indicated on the worksheet, they should describe:

- The decision they made.
- Alternatives that they had to choose from.
- What information, if any, they collected in order to make the choice.
- The results of the decision, if immediately known.

ASCA Mindsets & Behaviors for Student Success Addressed

- B-LS 1. Demonstrate critical-thinking skills to make informed decisions.
- B-LS 9. Gather evidence and consider multiple perspectives to make informed decisions.
- B-SMS 7. Demonstrate effective coping skills when faced with a problem.

Module 2: Lesson Plan



SLIDES 2-1 AND 2-2

Introduction: Using Online Sources for Information About Change

(5 minutes)

This is not the work world your parents entered. We will be looking at you, your preparation, and the world of work in a different century. One of the changes is the ability to access huge amounts of information on the Internet.



ACTIVITY

Activity 5: What's New?

(25 minutes)

If your school has a classroom or laboratory equipped with computers, take the students to the computer area so that they may access the Department of Labor's website and available articles at www.bls.gov. Alternatively, you may display this website for the group using a projection base. If access to the Internet is not possible, distribute copies of previously selected newspaper or journal articles that you have brought to class.

Ask students to use the website review form included in this lesson ([Activity 5: What's New?](#)). This double-columned form asks students to write in the left column a brief summary of a trend or condition typical of work in the 21st century. Space is provided in the right column for the student to write a possible implication of this change or new trend for his or her personal career choice or planning. Ask students to read the assigned online or printed article(s) and, using Activity 5, make a brief report including:

- What trend or change is stated or implied in the article(s).
- What this trend means for one's personal career choices or planning.

Have students take out [Activity 3: The Good Old Days](#), which they have completed as their homework assignment for this session. Discuss information they have brought in from their interviews and connect it to the current lesson by asking: *In our last session, you were asked to interview an older person. Were any of these trends mentioned?*

Let's talk about those changes now. We have used several sources for information – articles in newspapers, in magazines, or on the Internet as well as an interview with an older person about how work has changed. What have you learned from these activities?

Encourage and expect responses such as the following:

- Everybody works with a computer now.
- Some jobs that used to exist have disappeared or changed significantly.
- There are new jobs now that didn't exist before.
- There are fewer bosses now.
- Some people have to get new training quite often.
- People look for jobs on the Internet.
- Jobs that people used to do are now done by a computer or robot.
- Some people change jobs often.
- People don't feel as loyal to their employers as they used to.
- Some people make very high salaries while others make very low salaries.
- Many people you work with are not of your race or culture.
- Through the use of computers, some people work from home and communicate with others who may be in many different places.
- The state of the economy affects how many people are unemployed.

As students provide their answers, record them on a flip chart or blackboard. Then ask:
What has happened to bring about these changes?

Encourage and expect responses such as the following:

- We've been sending many jobs or work-related tasks to foreign countries.
- The invention of the computer and its increasing ability to do routine jobs as well as "professional-level" jobs such as accounting, diagnosing medical problems, or designing buildings.
- The invention of the Internet, providing communication and worldwide availability of information.
- The "smallness" of our world due to fast methods of travel, the Internet, the phone, the fax machine, and satellite communication.
- Increased immigration, bringing people from all parts of the world into our country to join the work force of a prosperous economy.
- The fluctuation of the economy.



ACTIVITY

Activity 6: Then and Now

(15 minutes)

Divide the class into small groups of four or five students. Distribute Activity 6: Then and Now. Individually, have each student complete the worksheet. Then, in the small groups, have students discuss what these changes mean for their preparation to enter the job network of the 21st century.



SLIDES 2-3 TO 2-6

Mini-Lecture: Career Planning in the 21st Century

(10 minutes)

We have noted many changes (refer to the list that has been kept on the flip chart or board, or on the PowerPoint slide provided) in work in the 21st century – new occupations, new work tasks, new tools for performing work, different places and ways for doing work, and different skills and qualifications for workers. What impact will these changes have on you and your personal career plans?

Invite students to answer this question, and summarize answers on a flip chart or on the board. Encourage and expect responses such as the following:

- There will be new jobs that do not exist today.
- More people will work in small teams via the Internet – i.e., in a virtual workplace.
- More people will work from home.
- More people will have their own small businesses.
- People will have many jobs in their lifetimes and will not feel strong loyalty to one employer.
- People will have to continue to learn and to acquire new skills.
- People will have to take more responsibility for their financial planning and career planning than in the 20th century.
- Many people will have periods of unemployment.
- Many people will work as consultants or as temporary or part-time workers.
- Those who have a good education and technical skills are likely to make high salaries and be in demand; those who do not have these advantages may be unemployed or underemployed.
- Most jobs will be in the service sector rather than in product manufacturing.
- Many jobs will be done entirely or partially in other countries.

What kinds of actions do you need to take to adapt to these changes successfully?

- I will need a broad range of skills that can be moved from one job or occupation to another.
- I need to have self-discipline so that I can work without supervision.
- I may need to have some business skills so that I will know how to start and maintain my own business.
- I need to keep my resume updated and stay current on the best ways to find jobs (including knowing how to use the Internet).
- I need to complete high school and some post-high school education and/or training, and I expect to continue to go back to school for short periods throughout my life (including taking courses on the Internet).
- I need to have at least a good base level of skill with computers.
- I need to learn how to make a budget and save money in order to ensure my financial future, since my employers may not do so.
- I will need to know how to work cooperatively with people of many different racial and ethnic backgrounds and all kinds of diversity.
- I may need to be willing to move to different places to find the kind of work I want.
- I may be able to work from home, using the computer and phone to communicate with co-workers or employers.
- I may need to get satisfaction from a variety of life roles, not just work.
- I will need to know how to deal with frequent change.

Today, we have reviewed the kinds of changes that have taken place in the world of work in the past 30 years or so. We know that change is happening even faster in the 21st century. As we move forward in this course, we will need to remember the list of possibilities that we have just developed.



SLIDE 7

Homework Assignment

Using *Activity 4: Decision Making in My Life*, write down at least five decisions that you make between now and the next class session. We will discuss some of these in the next session. As indicated on the worksheet, describe:

- *The decision you made.*
- *Alternatives that you had to choose from.*
- *What information, if any, you collected in order to make the choice.*
- *The results of the decision, if immediately known.*



ACTIVITY 4

Optional Activities

- Invite someone who works in a virtual office (based at home but working with others by connecting electronically) to tell the class about how it works and what this has meant to the guest's lifestyle.
- Use the following job-posting websites to search for job openings in two occupations in which you have interest. Write down a list of skills required by employers for each.
 - Indeed.com
 - Monster.com
 - CareerBuilder.com

Module 2: Resource Materials

Work and Career Planning in the 21st Century

Never in history has career planning been more exciting or more important! The process is much the same as it has always been; however, the context of career planning, as well as how fast that context is changing, is different. This module briefly reviews the meaning of work in people's lives and then focuses on the changes that will be occur rapidly in the 21st century. It also cites what implications exist for personal career planning.

Though the nature and context of work are changing rapidly, its meaning to individuals and to society remains constant. Society's economic structure is supported by its workers. The wages from their employment contribute directly to the tax base, and the purchasing power which those wages afford stimulates the economy in self-sustaining ways. Still further, accumulated retirement funds serve as the backbone of the American economy.

The Meaning of Work

There is a significant and undeniable relationship between satisfaction in work and satisfaction in life. Satisfying work contributes not only to the good of society, but to the mental health and happiness of its individual members. When the energies of individuals are focused on productive activities, there is less crime, violence, drug abuse, and poverty.

Individuals benefit in other ways from satisfying work:

- Self-concept is improved and maintained.
- The income sustains families, enables a positive lifestyle through the gratifying use of one's resources and time, and provides security for retirement.
- Many find self-actualization and meaning in life through work.

These are some of the reasons for, and outcomes of, satisfying work. This curriculum will teach students how to identify and maintain that satisfying work. Processes such as

career planning and development always take place within a context that presents both supporting opportunities and challenging barriers. The context of current planning is the Information Age. Many factors make this age different, but perhaps the most salient is the speed with which communication can take place literally worldwide, as well as the fact that information sharing increases the pace of change. This ease of worldwide communication has, of course, been made possible by the computer and the connections of computers in the web. The entry of this phenomenon is as revolutionary as the printing press in the 15th century.

What is the context of work in the beginning of the 21st century? It will be a world of many changes. A smaller percentage of workers will have a job in the sense that we now define that word. We're used to defining it as continuous, long-term employment with an organization that provides us with a regular salary, health benefits, a pension plan, and the assurance of a continuing need for our skills. But, the experience of corporate America in the last few years has changed the face of the job dramatically for a large percentage of people.

Workplace Trends

Corporate downsizing caused corporations to reduce their work force by cutting middle management, operating in a "lean and mean" mode, and introducing technology wherever possible. As a result, corporations have been able to function with a smaller work force and still attain the same level of productivity, or even surpass it.

This change in corporate mentality may continue and expand. The success of the first efforts to reduce costs and escalate productivity has encouraged other measures such as the advent of the "just-in-time" work force, whereby a corporation may operate with a small, elite, technologically sophisticated core of employees and then hire contingent workers – i.e., workers who come in on an as-needed basis. Of course, these workers do not have any employer benefits or retirement plan, nor do they have any measure of job security.

A second means of cutting costs that is becoming increasingly popular with corporations is outsourcing – in other words, contracting out for the development and production of goods and services. Using the technology of this Information Age, work tasks and projects can easily be outsourced to other countries. This approach is being used not only with low-skill, repetitive jobs (which are increasingly becoming robotized), but also with high-level tasks. These projects can now be sent via email and file exchange to countries where a large, educated populace is willing to work for less than the American minimum wage. Clerical work is being sent to China by email and returned in the same way. Corporations are sending programming work to India and other third-world countries that have an educated elite.

The trend to modify the nature and location of the work force is causing rapid changes in the topology of occupations, and so is the tremendous pace of automation. If the work tasks are routine, they can be computerized and robotized, making it possible to have workers around the clock and to produce products that are of the same quality on Monday morning as on Wednesday. This trend has long been impacting factory line assembly jobs. Now it's also impacting professional occupations and occupations in the service sector. A computer program can do ordinary, garden-variety accounting; a computer-delivered interactive questionnaire can do a thorough job of first-level medical screening; and well-developed interactive courses can be made available to millions on the Internet.

With the tremendous capability of the Internet:

- Shoppers can find almost any imaginable article for sale at 25-40 percent less than in a retail store.
- One can work from home and send the results, attached to an e-mail, to any office.
- Doctors performing a critical piece of surgery can be accompanied and advised by experts from around the world who observe and participate virtually in real time.
- It will be increasingly possible for people to work together while being far apart physically.

All of these trends will cause some occupations to disappear and others to emerge. Individuals will increasingly outfit themselves with an array of skills, and will focus less on which occupation to enter and more on where to use their skills next as they transfer from one short-term assignment to another. It will be more difficult to find good employment without a well-honed set of skills. Computer skills and occupation-specific skills will need constant updating; thus, we will always be learning through self-study, and by intermittent attendance at workshops or courses delivered by on-site facilitators or by distant facilitators via the Internet.

As noted, corporations and organizations will continue to change. The past relationship between employers and individuals has been called the **social contract**. Basically, that meant an employer, in return for the good service and productivity of an employee, offered lifetime employment with an inherent potential for promotion, regular increases in salary, a good employer benefit plan, and an assured retirement package. This social contract was often secured by labor union contracts. These conditions have changed dramatically. Mid-management positions have been reduced in most corporations. The power of unions has vastly declined. Hundreds of thousands of workers who believed in the stability of the social contract have been "riffed" and severed from its benefits.

This trend has progressed so far that many companies are training their employees in personal career management skills. The new attitude is that the employee and the company have a relationship as long as the company needs the employee; however, the humane company also wants its employees to have a set of career management skills to make it easy for them to move to another position. On the other side of the contract, younger employees feel free to leave the company if salary or other benefits are more attractive elsewhere.

There are likely to be fewer corporations in the 21st century as organizations recognize the benefits of consolidation. Mergers, takeovers, and buyouts offer savings because of reduced overhead and increased skill capacity and buying power. The growing trend to sell goods and services via the Internet may also contribute to this trend. At the opposite end of the scale, the same trend may increase the number of small “cottage” industries and companies.

All of the trends noted – automation, growth of the Internet, email, fewer large corporations, changes in work tasks – contribute to another change: the place where individuals will work. The combination of the laptop computer, cellphone, fax machine, Internet, and the electronic transfer of files makes it possible for motivated workers to work almost anywhere. Some corporations are encouraging individuals and teams to work at home, only occasionally coming to a physical office. Most workers are happy to have this increased freedom, and so as long as productivity is not lessened, companies can save money by having less office space. The workers in turn can save money on transportation, clothes, and commuting time.

Customization and Customer Involvement

Other trends are customization and customer involvement in the design of products. Automation makes it possible to produce a product quickly and to the specification of the customer. So it is now possible for a customer to order, via the Internet, a pair of jeans made to the exact measurement of the customer’s body. Similarly, it is possible to order some brands and models of cars after designing them on a computer screen, using computer-aided design software. Obviously, a customer is delighted to have such service, but think also about the cost-savings to the providers of this “just-in-time” delivery. This practice avoids 1) having inventory that never sells or gets outdated, and 2) needing the space for storage. Book, film, and test publishers are following suit and downloading print materials, interactive books, software, and films to the consumer’s home computer. With this customization trend, there might be different versions of books or films suited to different audiences.

Implications of Workplace Changes

What does all of this mean to us? Excitement, challenge, and a critical need for the right background and skills for the 21st century! For the prepared, this can be a time for unprecedented fulfillment in work without the potential boredom of one occupation, one set of work tasks, or one work setting for a lifetime. Many experts predict that productivity will be so high in the Information Age that individuals will be able to have a shorter work week and make the same salary as if they had worked 40 hours, thus having more time for satisfying leisure.

For the underprepared or unprepared, the Information Age could be catastrophic. There could be increasingly fewer jobs for the unskilled or low-skilled, and these would be temporary and lack employer benefits. The possession of basic computer literacy and access to the Internet appear to be emerging as an unfortunate divider in society, and persons without these resources may find difficulties. All of this could result in low self-concept, loss of valuable human resources, personal unhappiness, domestic violence, substance abuse, and dependence upon government support.

Preparing for the Future

What are the knowledge and skills that we need in order to realize the better of these two alternatives? There are two critical areas that make the difference: awareness of the need to plan ahead and awareness that we can control many, if not most, of the events and outcomes in our lives. Awareness of the need to plan ahead simply means that we know that we have to identify necessary steps in order to get from where we are to the goal we want to achieve – and further, that the actions taken in one step will affect the outcome of later steps.

Awareness of the capability to have a significant degree of control over our lives is the second important concept. Odd as it may seem, research indicates that the single most important determinant of educational and vocational success is one's internal belief that he or she has the capability to succeed. Once accomplishment begins, it reinforces itself and grows.

Belief in one's capability to succeed and control many of life's variables must, however, be based upon a foundation that makes self-dependence realistic. From a review of the best literature on the subject, it appears that such a foundation needs to include an education and skill set that is dependable.

This foundation relies on the following:

- A strong academic background that includes at least three years of English, math, science, and social studies.
- Completion of at least two years of education beyond high school. This might be a vocational-technical program, a two-year community college degree, or a four-year college degree. The word completion is critical. The 50 percent of students who start but do not complete college are at high risk because they have acquired neither technical skills for the job market nor a baccalaureate degree.
- Good communication skills, including the ability to write clearly with good syntax and grammar, speak with proper English skills, and communicate clearly with others.
- Interpersonal skills such as the ability to get along with co-workers and supervisors. A greater percentage of individuals lose their jobs because they lack this ability than because they lack job-specific skills.
- Self-management skills such as the understanding that you are responsible for your life's decisions and outcomes and for taking appropriate action steps.
- Career management and transition skills – i.e., the knowledge and capability to follow a process of career planning and to cope with transition when it occurs.

The purpose of this curriculum is to teach these career management and transition skills. By the time students complete this experience, they will be able to identify their educational plans, first target occupation, or next career move. It is even more important that they learn a process and acquire skills that they can use again and again in the Information Age. If they do learn these career management skills, they will indeed be able to chart their course!

References

Karoly, L.A. and Paris, W.A. (2004). *The 21st Century at Work: Forces Shaping the Future Work force and Workplace in the United States*. Santa Monica, CA: Rand Corporation.

Pink, D.H. (2001). *Free Agent Nation: How America's New Independent Workers are Transforming the Way We Live*. New York: Warner Books.

Pink, D.H. (2005). *A Whole New Mind: Moving from the Information Age to the Conceptual Age*. New Jersey: Riverhead.

Rifkin, J.R. (2004). *The End of Work*. New York, NY: Penguin Group.

Websites that could be assigned to students

How is Technology Impacting the Changes in the 21st Century Workplace?

<http://smallbusiness.chron.com/technology-impacting-changes-21st-century-workplace-3357.html>

Workplace Trends in the 21st Century.

<http://smallbusiness.chron.com/workplace-trends-21st-century-1105.html>

The Changing Nature of Organizations, Work, and the Workplace.

<https://www.wbdg.org/resources/chngorgwork.php>

U.S. Dept. of Labor. Futurework - Trends and Challenges for Work in the 21st Century.

www.dol.gov/oasam/programs/history/herman/reports/futurework/report.htm

Name _____

Date _____



Activity 4: Decision Making in My Life

Before the next session, record five decisions you have made recently and summarize the alternatives, information considered, and results of each decision.

Decision	Alternatives	Information Considered	Results
What to wear today?	1. Jeans and shirt 2. Sweatshirt 3. Dressy outfit	Weather? Will others like it? Activities planned?	Worked out fine.

Five Decisions I Have Made

Decision	Alternatives	Information Considered	Results

Name _____

Date _____



Activity 6: Then and Now

In the THEN column, you will find a list of phrases that describe work as it has existed in the past. In the NOW column, write a phrase describing how that work might be done now. An example has been completed for you below.

THEN	NOW
Repeating the same tasks all day long in an assembly line.	Robots perform repetitive tasks.
Working in a cubicle in a large office space.	
Using an electric typewriter for letters and documents.	
Close supervision by middle management.	
Staying with one company for 35 years.	
Going to the library to get information about a topic.	
Learning a new technique by attending a workshop.	
Selling products face to face or through catalogues.	
Regularly scheduled meetings in a conference room.	