Lesson One:  Introduction to Life Span, Growth and Development



 (Courtesy Wikipedia)

**Objectives: At the end of this lesson, you should be able to**

1. **Explain the study of human development.**
2. **Define physical, cognitive, and psychosocial development.**
3. **Differentiate periods of human development.**
4. **Analyze your own location in the life span.**
5. **Judge the most and least preferable age groups with which to work.**
6. **Contrast social classes with respect to life chances.**
7. **Explain the meaning of social cohort.**
8. **Critique stage theory models of human  development.**
9. **Define culture and ethnocentrism and describe ways that culture impacts development.**
10. **Explain the reasons scientific methods are more objective than personal knowledge.**
11. **Contrast qualitative and quantitative approaches to research.**
12. **Compare research methods noting the advantages and disadvantages of each.**
13. **Differentiate between independent and dependent variables.**

The objectives are indicated in the reading sections below.

**Welcome (Ob 1, Ob 2)**

Welcome to the study of human growth and development, commonly referred to as the “womb to tomb” course because it is the story of our journeys from conception to death. Human development is the study of how we change over time.  Think about how you were 5, 10, or even 15 years ago.  In what ways have you changed?  In what ways have you remained the same?  You have probably changed **physically**; perhaps you've grown taller and become heavier.  But you may have also experienced changes in the way you think and solve problems.  **Cognitive** change is noticeable when we compare how 6 year olds, 16 year olds, and 46 year olds think and reason, for example.  Their thoughts about others and the world are probably quite different.  Consider friendship for instance.  The 6 year old may think that a friend is someone with whom you can play and have fun.  A 16 year old may seek friends who can help them gain status or popularity.  And the 46 year old may have acquaintances, but rely more on family members to do things with and confide in.  You may have also experienced **psychosocial** change.  This refers emotions and psychological concerns as well as social relationships.  Psychologist Erik Erikson suggests that we struggle with issues of independence, trust, and intimacy at various points in our lives.  (We will explore this thoroughly throughout the course.)

Our journeys through life are more than biological; they are shaped by culture, history, economic and political realities as much as they are influenced by physical change. This is a very interesting and practical course because it is about us and those with whom we live and work. One of the best ways to gain perspective on our own lives is to compare our experiences with that of others. By periodically making cross-cultural and historical comparisons and by presenting a variety of views on issues such as healthcare, aging, education, gender and family roles, I hope to give you many eyes with which to see your own development. This occurs frequently in the classroom as students from a variety of cultural backgrounds discuss their interpretations of developmental tasks and concerns. I hope to recreate this rich experience as much as possible in this text. So, for example, we will discuss current concerns about the nutrition of children in the United States (for a middle-class boy of 11 years who is 130 pounds overweight and suffering with Pediatric Type II diabetes) as well as malnutrition experienced by children in Ethiopia as a result of drought. Being self-conscious can enhance our ability to think critically about the systems we live in and open our eyes to new courses of action to benefit the quality of life. And knowing about other people and their circumstances can help us live and work with them more effectively. An appreciation of diversity enhances the social skills needed in nursing, education, or any other field.

**New Assumptions and Understandings (Ob 8)**

I took my first graduate course in life span over 20 years ago. Much time was spent on the period of childhood, less on adolescence, and very little attention was given to adulthood. The message was clear: once you are 25, your development is essentially completed. Our academic knowledge of the life span has changed and although there is still less research on adulthood than on childhood, adulthood is gaining increasing attention. This is particularly true now that the large cohort known as the baby boomers are beginning to enter late adulthood. There is so much we need to find out about love, housing, health, nutrition, exercise, social, and emotional development with this large group. (Visit your local bookstore or search the internet and you will find many new titles in the self-help and psychology sections that address this population.)

I was also introduced to the theories of Freud, Erikson, and Piaget, the classic stage theorists whose models depict development as occurring in a series of predictable stages. **Stage theories** had a certain appeal to an American culture experiencing dramatic change in the early part of the 20th century. But that sense of security was not without its costs; those who did not develop in predictable ways were often thought of as delayed or abnormal. And Freudian interpretations of problems in childhood development, such as autism, held that such difficulties were in response to poor parenting.   Imagine the despair experienced by mothers accused of causing their child’s autism by being cold and unloving. It was not until the 1960s that more medical explanations of autism began to replace Freudian assumptions.

Freud and Piaget present a series of stages that essentially end during adolescence. For Freud, we enter the genital stage in which much of our motivation is focused on sex and reproduction and this stage continues through adulthood. Piaget’s fourth stage, formal operational thought, begins in adolescence and continues through adulthood. Again, neither of these theories highlights developmental changes during adulthood. Erikson, however, presents eight developmental stages that encompass the entire lifespan. For that reason, Erikson is known as the “father” of developmental psychology and his psychosocial theory will form the foundation for much of our discussion of psychosocial development.

Today we are more aware of the variations in development and the impact that culture and the environment have on shaping our lives.   We no longer assume that those who develop in predictable ways are normal and those who do not are abnormal. And the assumption that early childhood experiences dictate our future is also being called into question. Rather, we have come to appreciate that growth and change continues throughout life and experience continues to have an impact on who we are and how we relate to others.  And we recognize that adulthood is a dynamic period of life marked by continued cognitive, social, and psychological development.

**Who Studies Human Development?**

Many academic disciplines contribute to the study of life span and this course is offered in some schools as psychology; in other schools it is taught under sociology or human development. This multidisciplinary course is made up of contributions from researchers in the areas of health care, anthropology, nutrition, child development, biology, gerontology, psychology, and sociology among others. Consequently, the stories provided are rich and well-rounded and the theories and findings can be part of a collaborative effort to understand human lives.

**Many Contexts**

People are best understood in context.  What is meant by the word “context”?  It means that we are influenced by when and where we live and our actions, beliefs, and values are a response to circumstances surrounding us.  Sternberg describes a type of intelligence known as “contextual” intelligence as the ability to understand what is called for in a situation (Sternberg, 1996). The key here is to understand that behaviors, motivations, emotions, and choices are all part of a bigger picture. Our concerns are such because of who we are socially, where we live, and when we live; they are part of a social climate and set of realities that surround us.  Our social locations include cohort, social class, gender, race, ethnicity, and age.  Let's explore two of these:  cohort and social class.

**The Cohort Effect (Ob 7)**

One important context that is sometimes mistaken for age is the cohort effect. A **cohort** is a group of people who are born at roughly the same period in a particular society. Cohorts share histories and contexts for living. Members of a cohort have experienced the same historic events and cultural climates which have an impact on the values, priorities, and goals that may guide their lives. Consider a young boy’s concerns as he grows up in the United States during World War II. What his family buys is limited by their small budget and by a governmental program set up to ration food and other materials that are in short supply because of the war. He is eager rather than resentful about being thrifty and sees his actions as meaningful contributions to the good of others. As he grows up and has a family of his own, he is motivated by images of success tied to his past experience: a successful man is one who can provide for his family financially, who has a wife who stays at home and cares for the children, and children who are respectful but enjoy the luxury of days filled with school and play without having to consider the burdens of society’s struggles. He marries soon after completing high school, has four children, works hard to support his family and is able to do so during the prosperous postwar economics of the 1950s in America. But economic conditions change in the mid-1960s and through the 1970s. His wife begins to work to help the family financially and to overcome her boredom with being a stay-at-home mother. The children are teenagers in a very different social climate: one of social unrest, liberation, and challenging the status quo. They are not sheltered from the concerns of society; they see television broadcasts in their own living room of the war in Vietnam and they fear the draft. And they are part of a middle-class youth culture that is very visible and vocal. His employment as an engineer eventually becomes difficult as a result of downsizing in the defense industry.  His marriage of 25 years ends in divorce. This is not a unique personal history, rather it is a story shared by many members of his cohort. Historic contexts shape our life choices and motivations as well as our eventual assessments of success or failure during the course of our existence.

Consider your cohort.  Can you identify it?  Does it have a name and if so, what does the name imply?  To what extent does your cohort shape your values, thoughts, and aspirations?  (Some cohort labels popularized in the media for generations in the United States include Baby Boomers, Generation X, and Generation M.)

**Socioeconomic Status (Ob 6)**

Another context that influences our lives is our social standing, socioeconomic status, or social class. **Socioeconomic status** is a way to identify families and households based on their shared levels of education, income, and occupation. While there is certainly individual variation, members of a social class tend to share similar lifestyles, patterns of consumption, parenting styles, stressors, religious preferences, and other aspects of daily life. (Consider, for example, some terms that have been used in marketing to refer to different consumer groups: the “truck and trailer” or the “pool and poodle” group referring to working class and upper middle-class groups.) All of us born into a class system or are socially located and may move up or down depending on a combination of both socially and individually created limits and opportunities. Below is a model of the class system identified in the United States (Gilbert 2003; Gilbert and Kahl, 1998), a description of these social classes, and a partial listing of the impact that social class can have on individual and family life (Seccombe and Warner, 2004).

View a slide show on social class from a study by the New York Times at [www.nytimes.com/slideshow/2005/05/14/national/class/20050515OVERVIEW\_VOICES\_SLIDESHOW\_1.html](http://www.nytimes.com/slideshow/2005/05/14/national/class/20050515OVERVIEW_VOICES_SLIDESHOW_1.html)

Then review the descriptions given below.

**Model of Social Class Based on Socioeconomic Status**

**Upper Class:**This group makes up about 1 percent of the population in the United States. They own substantial wealth and after-tax annual family income of between $200,000 to $750,000 (DeNavas-Walt and Cleveland, 2002). The upper class is subdivided into “upper-upper” and “lower-upper” categories based on how money and wealth was acquired. The “upper-upper class” (0.5%) has money from investments or inheritance and tend to be stewards of the family fortune. This “old money” brings a sense of polish and sophistication now shared by those with “new money”. The newly rich (0.5%) have made their fortunes as personalities in sports and media or as entrepreneurs. Members of the newly rich tend to flaunt their wealth; a practice looked upon with disdain by old money. One of my former students reported her experience as a flight attendant working first class on a trip from New York to Los Angeles. One of her passengers had a name that would be familiar to many Americans as a family with old money. Seated several rows behind him was a couple from the newly rich and she wore a long fur coat, they became drunk on champagne and were quite loud during the flights. The plane had landed, and as the flight attendant was helping her upper-upper class guest on with his coat and he looked over his shoulder at the couple and sneered, “New money.” (So consider this: if you ever win the lottery, you may risk being shunned by “old money”!)

**Upper Middle Class:**About 14 percent of the population in the United States is considered upper middle class. Income levels are more often between $100,000 and $200,000 annually and hold professional degrees that involve education beyond a four-year bachelor’s degree. One of the distinctions made between the middle class overall and members of the working class is that members of the middle class have occupations in which they are paid for their education and expertise. These white-collar workers (a term that originally referred to the distinction between what office workers wore to work as opposed to factory workers designated as “blue collar” workers) hold professional positions such as physicians or attorneys and as professionals enjoy a good deal of freedom and control over their occupations. They determine the regulations of their work through professional organizations (such as the American Medical Association).  Having a sense of autonomy or control is a key factor in experiencing job satisfaction and personal happiness and ultimately health and well-being (Weitz, 2007).

**Middle Class:** Another 30 percent of the population is considered middle class. These individuals work in lower-paying, less autonomous white-collar jobs such as teaching and nursing or as lower-level managers. Members of the middle class may hold 2 or 4 year degrees, but often from less prestigious, state-supported schools. Their income typically ranges between $25,000 and $75,000 annually. They own less property and have less discretionary income than members of the upper-middle and upper class and yet they may share the values and standards held by the upper-middle class. Yet, acquiring larger homes, newer vehicles, and pursing travel, paying for health care and dental expenses often means taking on substantial debt.  This problem is not unique to the United States, however. Consider this excerpt from a British newspaper describing today’s “impoverished professionals” in which a couple goes to dinner before a movie and realizes that they have no cash. So out come the 9 credit cards.

I've brought all the cards . . .trouble is, I can't remember which ones are up to their limit . . .Go to a cash machine? Forget it. Both our current accounts have been frozen. Welcome to the world of middle-class debt . . . On paper, my husband and I are what is known in polite parlance as "comfortably off". In reality, we have no money. Anything that comes in goes immediately on debt repayment . . . That and paying the nanny so we can both go out to work and earn more money for more debt repayment. An Impoverished Professional, I call myself. And there are plenty of us out there.

The average amount of credit card debt in American households is $8,000 and out of 144 million Americans who carry an “all purpose” credit card, only 55 million pay their entire balance off each month. The industry refers to these people as “deadbeats” and prefers the almost 90 million customers who extend their payment over months. These “revolvers” create nearly $30 billion in profits for the industry. (Frontline, 2004). Carrying debt can be extremely stressful and have a negative effect on health and social well-being. The consequences of such debt are still being explored.

**The Working Class:**Thirty percent of Americans are considered members of the working class. The working class is comprised of those working in occupations such as retail, clerical or factory jobs. Their jobs are typically routine and more heavily supervised than those of the middle class and require less formal education than do white-collar jobs. Members of the working class are subject to plant closings, lower pay, and more frequent lay-offs, and may rely on fewer workers contributing to the family income. Fewer earners and less job stability impacts not only family income, it also impacts the likelihood of having adequate health care.  Being employed does not insure adequate healthcare; in fact, sixty-nine percent of the 45 million Americans who lack any medical insurance live in households where there is at least one full-time employee (Kaiser Commission on Medicaid and the Uninsured, 2004). Americans who are self-employed or working in companies with fewer than 200 employees are less likely to have health insurance benefits than those who work in companies with 200 or more employees (Weitz, 2007).   And the cost of obtaining even minimal health insurance as an individual is often prohibitive.

Social class differences go beyond financial concerns, however. In a classic study on parenting styles and social class, Melvin Kohn (1977) found that working class parents emphasized obedience, honesty, and conformity in their children while middle-class parents valued independence, initiative, and self-reliance. These differences are attributed to the expectations made of parents as workers; blue-collar workers are rewarded for conformity while white-collar workers are rewarded for initiative.

**The Working Poor:**Twenty percent of Americans are categorized as the working poor. These people live near the poverty level and hold seasonal or temporary jobs as unskilled laborers. This includes migrant farm workers, temporary employees in service industries such as restaurants or in retail typically for minimum wage.   The poor and working poor experience many of the same problems that can have an impact on development. We will examine this list after describing the next social class.

**The Underclass:**Approximately five percent of Americans are part of the underclass described as temporary workers, part-time workers, those who are chronically unemployed or underemployed (Gilbert, 2003). They may receive some governmental assistance and tend to be looked down upon by other members of society. Since 2008, we have seen national unemployment rates in the United States hovering around 10 percent due to changes in the economy and being unemployed is less stigmatized but still very stressful.  Many of the underclass are children or are disabled. It is estimated that there are about 3.5 million homeless people in the United States and 1.5 of them are children (Urban Institute, 2000). (Find out more at: <http://www.nationalhomeless.org/factsheets/How_Many.html>  Life on the streets can be extremely dangerous involving addiction, deceit, violence, sexual assault, and prostitution or “survival sex” which refers to exchanging food for shelter (Davis, 1999).

**Other Consequences of Poverty:**Poverty level is an income amount established by the Social Security Administration that is based on a formula called the “thrifty food plan” that allows one-third of income for food. Those living at or near poverty level may find it extremely difficult to sustain a household with this amount of income. Buying the least expensive, most filling foods typically means buying foods high in fat, starch and sugar. Living in poorer housing with the fear of eviction or poor plumbing and disruptive neighbors can also be stressful. Poverty is associated with poorer health and a lower life expectancy due to poorer diet, less healthcare, greater stress, working in more dangerous occupations, higher infant mortality rates, poorer prenatal care, greater iron deficiencies, greater difficulty in school, and many other problems. Members of the middle class may fear losing status, but the poor may have greater concerns over losing housing. And while those in the middle class are more likely to use shopping or travel as a way to cope with stressors, the poor are more likely to eat or smoke in response to stress (Seccombe and Warner, 2004).

Use this tool to calculate your social class position based on four commonly used indicators of socioeconomic status in the United States.  Found at [www.nytimes.com/packages/html/national/20050515\_CLASS\_GRAPHIC/index\_01.html](http://www.nytimes.com/packages/html/national/20050515_CLASS_GRAPHIC/index_01.html)

Explore many other chances and choices in life that are impacted by social class by clicking here and reviewing the stories given on the left of the screen by visiting  [www.nytimes.com/pages/national/class/index.html](http://www.nytimes.com/pages/national/class/index.html)

Think about how social class might impact the life of someone with whom you are working in a hospital, school, or other setting.  What should you consider in order to be most effective in helping that person or family?

**Many Cultures (Ob 9)**

**Culture** is often referred to as a blueprint or guideline shared by a group of people that specifies how to live. It includes ideas about what is right and wrong, what to strive for, what to eat, how to speak, what is valued, as well as what kinds of emotions are called for in certain situations. Culture teaches us how to live in a society and allows us to advance because each new generation can benefit from the solutions found and passed down from previous generations. Culture is learned from parents, schools, churches, media, friends and others throughout alifetime. The kinds of traditions and values that evolve in a particular culture serve to help members function in their own society and to value their own society. We tend to believe that our own culture’s practices and expectations are the right ones. (This belief that our own culture is superior is called **ethnocentrism** and is a normal by-product of growing up in a culture. It becomes a roadblock, however, when it inhibits understanding of cultural practices from other societies.) **Cultural relativity** is an appreciation for cultural differences and the understanding that cultural practices are best understood from the standpoint of that particular culture.

Culture is an extremely important context for human development and understanding development requires being able to identify which features of development are culturally based. This understanding is somewhat new and still being explored. So much of what developmental theorists have described in the past has been culturally bound and difficult to apply to various cultural contexts. The reader should keep this in mind and realize that there is still much that is unknown when comparing development across cultures.  (For example, consider Erikson's assumption that teenagers struggle with identity assumes that all teenagers live in a society in which they have many options and must make an individual choice about their future.  In many parts of the world, one's identity is determined by family status or society's dictates.  In other words, there is no choice to make.)

Even the most biological of events can be viewed in cultural contexts that vary extremely. Consider two very different cultural responses to menstruation in young girls. In the United States, girls in public school often receive information on menstruation in around 5th grade. The extent to which they are also taught about sexual intercourse, reproduction, or sexually transmitted infections depends on the policy of the school district guided by state and local community standards and sentiments. But menstruation is addressed and girls receive information and a kit containing feminine hygiene products, brochures, and other items. For example, menstruation is interpreted as an event that can affect the mood of a young girl and temporarily render her difficult, hostile, or simply hard to be around. But, she is encouraged to have a “happy” period with this product and is also encouraged to wish her friends a happy period as well through a product-sponsored website ([www.beinggirl.com/happy](http://www.beinggirl.com/happy)).  Contrast this with the concern that a lack of sanitary “towels” or feminine napkins causes many girls across Africa to miss more than a month of school each year during menstruation. Education is essential in these countries for moving ahead and the lack of sanitary towels places these girls at a tremendous educational disadvantage. The one-dollar price tag on towels is prohibitive in countries such as Kenya where most families earn about 54 cents per day.  The lack of towels also results in unsanitary practices such as the use of blankets or old cloths to manage the menstrual flow. In some parts of Africa, reusable or washable sanitary towels are used, but in countries such as Kenya where there is little water, this would not be a solution. And in instances where towels were donated and given out without educating girls on how to use them, girls have folded them up and used them as tampons, a practice that can lead to serious infection (Mawathe, 2006). (Find out more about this at the Girl Child Network at [http://www.girlchildnetwork.org/sanitary-towels-campaign-programme.html](http://www.gcn.org.zw/programs.html)).

Think of other ways culture may have affected your development.  How might cultural differences influence interactions between teachers and students, nurses and patients, or other relationships?

**Periods of Development (Ob 3)**

Think about the life span and make a list of what you would consider the periods of development. How many stages are on your list? Perhaps you have three: childhood, adulthood, and old age. Or maybe four: infancy, childhood, adolescence, and adulthood. Developmentalists break the life span into nine stages as follows:

                        Prenatal Development

                        Infancy and Toddlerhood

                        Early Childhood

                        Middle Childhood

                        Adolescence

                        Early Adulthood

                        Middle Adulthood

                        Late Adulthood

                        Death and Dying

This list reflects unique aspects of the various stages of childhood and adulthood that will be explored in this book. So while both an 8 month old and an 8 year old are considered children, they have very different motor abilities, social relationships, and cognitive skills. Their nutritional needs are different and their primary psychological concerns are also distinctive. The same is true of an 18 year old and an 80 year old, both considered adults. We will discover the distinctions between being 28 or 48 as well. But first, here is a brief overview of the stages.

**Prenatal Development**

**[](http://angel.southseattle.edu/AngelUploads/Files/9cc63e02-ff82-4004-a25e-7d194b7ce500/800px-Human_Embryo_-_Approximately_8_weeks_estimated_gestational_age_1.jpg)**

Photo Courtesy Lunar Caustic

Conception occurs and development begins. All of the major structures of the body are forming and the health of the mother is of primary concern. Understanding nutrition, teratogens (or environmental factors that can lead to birth defects), and labor and delivery are primary concerns.

**Infancy and Toddlerhood**

**[](http://angel.southseattle.edu/AngelUploads/Files/9cc63e02-ff82-4004-a25e-7d194b7ce500/Fenja2GNUinfant.JPG)**

 Photo Courtesy Fenja2

The first year and a half to two years of life are ones of dramatic growth and change. A newborn, with a keen sense of hearing but very poor vision is transformed into a walking, talking toddler within a relatively short period of time. Caregivers are also transformed from someone who manages feeding and sleep schedules to a constantly moving guide and safety inspector for a mobile, energetic child.

**Early Childhood**

**[](http://angel.southseattle.edu/AngelUploads/Files/9cc63e02-ff82-4004-a25e-7d194b7ce500/Walter_de_Maria_Vertikaler_Erdkilometerpublicdomain_1.jpg)**

 Photo Courtesy Walter de Maria

Early childhood is also referred to as the preschool years consisting of the years which follow toddlerhood and precede formal schooling. As a three to five-year-old, the child is busy learning language, is gaining a sense of self and greater independence, and is beginning to learn the workings of the physical world. This knowledge does not come quickly, however, and preschoolers may have initially have interesting conceptions of size, time, space and distance such as fearing that they may go down the drain if they sit at the front of the bathtub or by demonstrating how long something will take by holding out their two index fingers several inches apart. A toddler’s fierce determination to do something may give way to a four-year-old’s sense of guilt for doing something that brings the disapproval of others.

**Middle Childhood**

**[](http://angel.southseattle.edu/AngelUploads/Files/9cc63e02-ff82-4004-a25e-7d194b7ce500/240px-Chaparritos_in_Nebajbypinksip_1.jpg)**

Photo Courtesy Pink Sip

The ages of six through eleven comprise middle childhood and much of what children experience at this age is connected to their involvement in the early grades of school. Now the world becomes one of learning and testing new academic skills and by assessing one’s abilities and accomplishments by making comparisons between self and others. Schools compare students and make these comparisons public through team sports, test scores, and other forms of recognition. Growth rates slow down and children are able to refine their motor skills at this point in life. And children begin to learn about social relationships beyond the family through interaction with friends and fellow students.

**Adolescence**

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Photo Courtesy Overstreet

Adolescence is a period of dramatic physical change marked by an overall physical growth spurt and sexual maturation, known as puberty. It is also a time of cognitive change as the adolescent begins to think of new possibilities and to consider abstract concepts such as love, fear, and freedom. Ironically, adolescents have a sense of invincibility that puts them at greater risk of dying from accidents or contracting sexually transmitted infections that can have lifelong consequences.

**Early Adulthood**

**[](http://angel.southseattle.edu/AngelUploads/Files/9cc63e02-ff82-4004-a25e-7d194b7ce500/1297634090480.jpg)**

Photo Courtesy Josh Gray

The twenties and thirties are often thought of as early adulthood. (Students who are in their mid 30s tend to love to hear that they are a young adult!). It is a time when we are at our physiological peak but are most at risk for involvement in violent crimes and substance abuse. It is a time of focusing on the future and putting a lot of energy into making choices that will help one earn the status of a full adult in the eyes of others. Love and work are primary concerns at this stage of life.

**Middle Adulthood**

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The late thirties through the mid-sixties is referred to as middle adulthood. This is a period in which aging, that began earlier, becomes more noticeable and a period at which many people are at their peak of productivity in love and work. It may be a period of gaining expertise in certain fields and being able to understand problems and find solutions with greater efficiency than before. It can also be a time of becoming more realistic about possibilities in life previously considered; of recognizing the difference between what is possible and what is likely. This is also the age group hardest hit by the AIDS epidemic in Africa resulting in a substantial decrease in the number of workers in those economies (Weitz, 2007).

**Late Adulthood**

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Photo Courtesy Overstreet

This period of the life span has increased in the last 100 years, particularly in industrialized countries. Late adulthood is sometimes subdivided into two or three categories such as the “young old” and “old old” or the “young old”, “old old”, and “oldest old”. We will follow the former categorization and make the distinction between the “young old” who are people between 65 and 79 and the “old old” or those who are 80 and older. One of the primary differences between these groups is that the young old are very similar to midlife adults; still working, still relatively healthy, and still interested in being productive and active. The “old old” remain productive and active and the majority *continues* to live independently, but risks of the diseases of old age such as arteriosclerosis, cancer, and cerebral vascular disease increases substantially for this age group. Issues of housing, healthcare, and extending active life expectancy are only a few of the topics of concern for this age group.  A better way to appreciate the diversity of people in late adulthood is to go beyond chronological age and examine whether a person is experiencing **optimal aging** (like the gentleman pictured above who is in very good health for his age and continues to have an active, stimulating life), **normal aging** (in which the changes are similar to most of those of the same age), or **impaired aging** (referring to someone who has more physical challenge and disease than others of the same age).

**Death and Dying**

[](http://angel.southseattle.edu/AngelUploads/Files/9cc63e02-ff82-4004-a25e-7d194b7ce500/RobertPaulYounggravestone.jpg)

Photo Courtesy Robert Paul Young

This topic is seldom given the amount of coverage it deserves. Of course, there is a certain discomfort in thinking about death but there is also a certain confidence and acceptance that can come from studying death and dying. We will be examining the physical, psychological and social aspects of death, exploring grief or bereavement, and addressing ways in which helping professionals work in death and dying. And we will discuss cultural variations in mourning, burial, and grief.

**Research Methods: How do we know what we know? (Ob 10)**

An important part of learning any science is having a basic knowledge of the techniques used in gathering information. The hallmark of scientific investigation is that of following a set of procedures designed to keep questioning or skepticism alive while describing, explaining, or testing any phenomenon. Not long ago a friend said to me that he did not trust academicians or researchers because they always seem to change their story. That, however, is exactly what science is all about; it involves continuously renewing our understanding of the subjects in question and an ongoing investigation of how and why events occur. Science is a vehicle for going on a never-ending journey. In the area of development, we have seen changes in recommendations for nutrition, in explanations of psychological states as people age, and in parenting advice. So think of learning about human development as a lifelong endeavor.

**Personal Knowledge**

How do we know what we know? Take a moment to write down two things that you know about childhood. . .Okay. Now, how do you know? Chances are you know these things based on your own history (experiential reality) or based on what others have told you or cultural ideas (agreement reality) (Seccombe and Warner, 2004). There are several problems with personal inquiry. Read the following sentence aloud:

**Paris in the**

**the spring**

Are you sure that is what it said? Read it again:

**Paris in the**

**the spring**

If you read it differently the second time (adding the second “the”) you just experienced one of the problems with personal inquiry; that is, the tendency to see what we believe. Our assumptions very often guide our perceptions, consequently, when we believe something, we tend to see it even if it is not there. This problem may just be a result of cognitive ‘blinders’ or it may be part of a more conscious attempt to support our own views. **Confirmation bias** is the tendency to look for evidence that we are right and in so doing, we ignore contradictory evidence. Popper suggests that the distinction between that which is scientific and that which is unscientific is that science is falsifiable; scientific inquiry involves attempts to reject or refute a theory or set of assumptions (Thornton, 2005). Theory that cannot be falsified is not scientific. And much of what we do in personal inquiry involves drawing conclusions based on what we have personally experienced or validating our own experience by discussing what we think is true with others who share the same views.

Science offers a more systematic way to make comparisons guard against bias. One technique used to avoid **sampling bias** is to select participants for a study in a random way. This means using a technique to insure that all members have an equal chance of being selected. **Simple random sampling** may involve using a set of random numbers as a guide in determining who is to be selected. For example, if we have a list of 400 people and wish to randomly select a smaller group or **sample** to be studied, we use a list of random numbers and select the case that corresponds with that number (Case 39, 3, 217 etc.). This is preferable to asking only those individuals with whom we are familiar to participate in a study; if we conveniently chose only people we know, we know nothing about those who had no opportunity to be selected. There are many more elaborate techniques that can be used to obtain samples that represent the composition of the population we are studying. But even though a randomly selected representative sample is preferable, it is not always used because of costs and other limitations. (As a consumer of research, however, you should know how the sample was obtained and keep this in mind when interpreting results.)

**Scientific Methods (Ob 11)**

One method of scientific investigation involves the following steps:

* Determining a research question
* Reviewing previous studies addressing the topic in question (known as a literature review)
* Determining a method of gathering information
* Conducting the study
* Interpreting results
* Drawing conclusions; stating limitations of the study and suggestions for future research
* Making your findings available to others (both to share information and to have your work scrutinized by others)

Your findings can then be used by others as they explore the area of interest and through this process a literature or knowledge base is established. This model of scientific investigation presents research as a linear process guided by a specific research question. And it typically involves quantifying or using statistics to understand and report what has been studied. Many academic journals publish reports on studies conducted in this manner and a good way to become more familiar with these steps is to look at journal articles which will be written in sections that follow these steps. For example, after a section entitled “Statement of the Problem”, you might find a second section entitled, “Literature Review”. Other headings will reflect the stages of research mentioned above.

Another model of research referred to as qualitative research may involve steps such as these:

* Begin with a broad area of interest
* Gain entrance into a group to be researched
* Gather field notes about the setting, the people, the structure, the activities or other areas of interest
* Ask open ended, broad “grand tour” types of questions when interviewing subjects
* Modify research questions as study continues
* Note patterns or consistencies
* Explore new areas deemed important by the people being observed
* Report findings

In this type of research, theoretical ideas are “grounded” in the experiences of the participants. The researcher is the student and the people in the setting are the teachers as they inform the researcher of their world (Glazer & Strauss, 1967). Researchers are to be aware of their own biases and assumptions, acknowledge them and bracket them in efforts to keep them from limiting accuracy in reporting.  Sometimes qualitative studies are used initially to explore a topic and more quantitative studies are used to test or explain what was first described.

**Types of Studies**

Not all studies are designed to reach the same goal.  **Descriptive studies** focus on describing an occurrence. Some examples of descriptive questions include “How much time do parents spend with children?”; “How many times per week do couples have intercourse?”; or “When is marital satisfaction greatest?”. **Explanatory studies** are efforts to answer the question “why” such as “Why have rates of divorce leveled off?” or “Why are teen pregnancy rates down?”   **Evaluation research** is designed to assess the effectiveness of policies or programs. For instance, a research might be designed to study the effectiveness of safety programs implemented in schools for installing car seats or fitting bicycle helmets. Do children wear their helmets? Do parents use car seats properly? If not, why not?

**Research Designs (Ob 12, Ob 13)**

We have just been looking at models of the research process and goals of research. The following is a comparison of research methods or techniques used to describe, explain, or evaluate. Each of these designs has strengths and weaknesses and is sometimes used in combination with other designs within a single study.

**Observational studies** involve watching and recording the actions of participants.  This may take place in the natural setting, such as observing children at play at a park, or behind a one-way glass while children are at play in a laboratory playroom. The researcher may follow a check list and record the frequency and duration of events (perhaps how many conflicts occur among 2 year olds) or may observe and record as much as possible about an event as a participant (such as attending an Alcoholics Anonymous meeting and recording the slogans on the walls, the structure of the meeting, the expressions commonly used, etc.). The researcher may be a participant or a non-participant. What would be the strengths of being a participant? What would be the weaknesses? Consider the strengths and weaknesses of not participating. In general, observational studies have the strength of allowing the researcher to see how people behave rather than relying on self-report. What people do and what they say they do are often very different. A major weakness of observational studies is that they do not allow the researcher to explain causal relationships. Yet, observational studies are useful and widely used when studying children. Children tend to change their behavior when they know they are being watched (**known as the Hawthorne effect**) and may not survey well.

**Experiments** are designed to test **hypotheses** (or specific statements about the relationship between **variables)** in a controlled setting in efforts to explain how certain factors or events produce outcomes. A variable is anything that changes in value.   in Concepts are **operationalized** or transformed into variables in research which means that the researcher must specify exactly what is going to be measured in the study. For example, if we are interested in studying marital satisfaction, we have to specify what marital satisfaction really means or what we are going to use as an indicator of marital satisfaction. What is something measurable that would indicate some level of marital satisfaction? Would it be the amount of time couples spend together each day? Or eye contact during a discussion about money? Or maybe a subject’s score on a marital satisfaction scale. Each of these is measurable but these may not be equally valid or accurate indicators of marital satisfaction. What do you think? These are the kinds of considerations researchers must make when working through the design.

Three conditions must be met in order to establish cause and effect. Experimental designs are useful in meeting these conditions.

The **independent and dependent variables must be related**. In other words, when one is altered, the other changes in response. (The independent variable is something altered or introduced by the researcher. The dependent variable is the outcome or the factor affected by the introduction of the independent variable. For example, if we are looking at the impact of exercise on stress levels, the independent variable would be exercise; the dependent variable would be stress.)

The **cause must come before the effect**. Experiments involve measuring subjects on the dependent variable before exposing them to the independent variable (establishing a baseline). So we would measure the subjects’ level of stress before introducing exercise and then again after the exercise to see if there has been a change in stress levels. (Observational and survey research does not always allow us to look at the timing of these events which makes understanding causality problematic with these designs.)

The **cause must be isolated.**  The researcher must ensure that no outside, perhaps unknown variables are actually causing the effect we see. The experimental design helps make this possible. In an experiment, we would make sure that our subjects’ diets were held constant throughout the exercise program. Otherwise, diet might really be creating the change in stress level rather than exercise.

A basic experimental design involves beginning with a sample (or subset of a population) and randomly assigning subjects to one of two groups: the **experimental group or the control group**. The experimental group is the group that is going to be exposed to an **independent variable** or condition the researcher is introducing as a potential cause of an event. The control group is going to be used for comparison and is going to have the same experience as the experimental group but will not be exposed to the independent variable. After exposing the experimental group to the independent variable, the two groups are measured again to see if a change has occurred. If so, we are in a better position to suggest that the independent variable caused the change in the dependent variable. The basic experimental model looks like this:

**Measure DV Introduce IV Measure DV**

**Sample is        Experimental Group             X                  X                     X**

**Randomly→**

**Assigned         Control Group                     X                  -                      X**

The major advantage of the experimental design is that of helping to establish cause and effect relationships. A disadvantage of this design is the difficulty of translating much of what concerns us about human behavior into a laboratory setting.   I hope this brief description of experimental design helps you appreciate both the difficulty and the rigor of conducting an experiment.

**Case studies** involve exploring a single case or situation in great detail. Information may be gathered with the use of observation, interviews, testing, or other methods to uncover as much as possible about a person or situation. Case studies are helpful when investigating unusual situations such as brain trauma or children reared in isolation. And they often used by clinicians who conduct case studies as part of their normal practice when gathering information about a client or patient coming in for treatment. Case studies can be used to explore areas about which little is known and can provide rich detail about situations or conditions. However, the findings from case studies cannot be **generalized** or applied to larger populations; this is because cases are not randomly selected and no control group is used for comparison. (Read “The Man Who Mistook His Wife for a Hat” by Dr. Oliver Sacks as a good example of the case study approach.)

**Surveys** are familiar to most people because they are so widely used. Surveys enhance accessibility to subjects because they can be conducted in person, over the phone, through the mail, or online. A survey involves asking a standard set of questions to a group of subjects. In a highly structured survey, subjects are forced to choose from a response set such as “strongly disagree, disagree, undecided, agree, strongly agree”; or “0, 1-5, 6-10, etc.” Surveys are commonly used by sociologists, marketing researchers, political scientists, therapists, and others to gather information on many independent and dependent variables in a relatively short period of time. Surveys typically yield surface information on a wide variety of factors, but may not allow for in-depth understanding of human behavior. Of course, surveys can be designed in a number of ways. They may include **forced choice** questions and **semi-structured questions** in which the researcher allows the respondent to describe or give details about certain events. One of the most difficult aspects of designing a good survey is wording questions in an unbiased way and asking the right questions so that respondents can give a clear response rather that choosing “undecided” each time. Knowing that 30% of respondents are undecided is of little use! So a lot of time and effort should be placed on the construction of survey items. One of the benefits of having forced choice items is that each response is coded so that the results can be quickly entered and analyzed using statistical software. Analysis takes much longer when respondents give lengthy responses that must be analyzed in a different way. Surveys are useful in examining stated values, attitudes, opinions, and reporting on practices. However, they are based on **self-report** or what people say they do rather than on observation and this can limit accuracy.

**Secondary/Content analysis** involves analyzing information that has already been collected or examining documents or media to uncover attitudes, practices or preferences. There are a number of data sets available to those who wish to conduct this type of research. For example, the U. S. Census Data is available and widely used to look at trends and changes taking place in the United States (go to <http://www.census.gov/> and check it out). There are a number of other agencies that collect data on family life, sexuality, and many other areas of interest in human development (go to <http://www.norc.uchicago.edu/> or <http://www.kff.org/> and see what you find.). The researcher conducting secondary analysis does not have to recruit subjects but does need to know the quality of the information collected in the original study.

**Content analysis** involves looking at media such as old texts, pictures, commercials, lyrics or other materials to explore patterns or themes in culture. An example of content analysis is the classic history of childhood by Aries (1962) called “Centuries of Childhood” or the analysis of television commercials for sexual or violent content. Passages in text or programs that air can be randomly selected for analysis as well. Again, one advantage of analyzing work such as this is that the researcher does not have to go through the time and expense of finding respondents, but the researcher cannot know how accurately the media reflects the actions and sentiments of the population.

**Developmental designs** are techniques used in life span research (and other areas as well). These techniques try to examine how age, cohort, gender, and social class impact development.  **Cross-sectional** research involves beginning with a sample that represents a cross-section of the population. Respondents who vary in age, gender, ethnicity, and social class might be asked to complete a survey about television program preferences or attitudes toward the use of the Internet. The attitudes of males and females could then be compared as could attitudes based on age. In cross-sectional research, respondents are measured only once. This method is much less expensive than longitudinal research but does not allow the researcher to distinguish between the impact of age and the cohort effect. Different attitudes about the Internet, for example, might not be altered by a person’s biological age as much as their life experiences as members of a cohort.

**Longitudinal** research involves beginning with a group of people who may be of the same age and background, and measuring them repeatedly over a long period of time. One of the benefits of this type of research is that people can be followed through time and be compared with them when they were younger. A problem with this type of research is that it is very expensive and subjects may drop out over time. (The film 49 Up is a example of following individuals over time.  You see how people change physically, emotionally, and socially through time.)  What would be the drawbacks of being in a longitudinal study?  What about 49 Up?  Would you want to be filmed every 7 years?  What would be the advantages and disadvantages?  Can you imagine why some would continue and others drop out of the project?

**Cross-sequential** research involves combining aspects of the previous two techniques; beginning with a cross-sectional sample and measuring them through time. This is the perfect model for looking at age, gender, social class, and ethnicity. But it the drawbacks of high costs and attrition are here as well.

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