

The teen and young adult brain: Risk taking and mental health: Objectives

- Compare the physiology of the teen and young adult brain with the adult brain.
- Describe differences in behavior and decision making associated with maturational differences.
- Describe interventions to increase health, encourage communication, and promote positive behaviors

Agenda

- Part I-Intro/The Teen Brain
- Part II-Behaviors and implications:
Drugs, alcohol, stress, and mental health
- Part III-Teen brain and decision making
- Part IV-The male and female brain
- Part V-Strategies and interventions

- Remember when.....
- Remember your adolescent years
 - Your level of self-esteem
 - Your peer pressures
 - Your parents expectations
 - Your own concerns and expectations
 - Societal issues and pressures....

How do those memories.....

- Influence how you perceive adolescent issues?
- Impact your interactions with adolescents?
- Affect your working with adolescent clients?
- Impact the perceptions of others?
And their memories?

Early psychologists believed too much flux in the adolescent years—not interesting enough to be studied

“Pseudostupidity”

Instead, they are so complex...no wonder they have a tough time...we need to assist!

Part I: The teen brain: The Amazing Brain

1. Lift your right foot off the floor and make clockwise circles.

2. Now, while doing this, draw the number '6' in the air with your right hand.

Your foot will change direction.

Different parts of the brain: different functions

- Exposure to ionizing rays
- sMRI-structural
- fMRI—functional magnetic resonance imaging
- EEG—electrical activity—functional and static
- MEG—magnetic traces of electrical activity
- Looks at glucose, blood flow, electrical activity, and anatomy
- “Real world” versus scanner
- Diffusion tensor imaging, magnetic transfer imaging

Differences in brain physiology

- Previously believed...brain was developed prior to adolescence—brain most plastic during 0-5years of age—Headstart
- Newer research...brain is “a work in progress”
 - Proliferation
 - Pruning
 - Myelination
 - Back to front maturation

The teen brain: Proliferation

- Significant increase in brain's grey matter during early adolescence—overproduction
- The Brain is still growing and developing during the teen years
- Girls have greater blood flow in their brains than boys
- Peaks at 11 years in girls
- Peaks at 12 ½ years in boys
- Bushier cells—arborization--density—triggers pruning

The teen brain: Use it or lose it:

Pruning

- Eliminates unused neurons and dendrites to decrease clutter in the brain
- Strengthens connections among those neuronal pathways most used
- This thinning out continues into the 20's
- Fewer and stronger connections
- Lack of stimulation/malnutrition-- ↓ pruning
- “Nature Deficit Disorder”
- Feedback—“know what to prune”

Pruning

- Brain waves weaker in 12-14 year olds than 9-11 year olds
- Decrease in “white noise”
- Resist temptation—not to look at light—use more energy—more exhausting
- Able to do increasingly complex problem solving
- Sensitive or critical periods—can’t teach an infant to walk
- “work in progress”
- Headstart for teens

Pruning occurs in areas of brain which govern:

- Self-control
- Judgment
- Emotions
- Organization
- Goal-directed
behavior

Positives of pruning

- Potential for selective pruning
- Teens may impact this process—
exercise of brain versus atrophy of
brain impacts the “hardwiring of
the brain”
- Impact of limits, activities,
discipline
- Environmental,
Genetic and Hormonal influences
- Research is cautious

Implications: Problems with pruning

- Poor decision making
- Reckless behavior/Rule breaking
- Emotional outbursts
- Less organized brain—
instructions and multitasking
parallel processing/
sequential processing
- "Clean your room"
- Can't process adult logic/abstract concepts—Piaget,
"Neo-Piagetian"—1/2 of adolescents reach formal
operations

The powerful brain.... reading/organizing words and letters...a result of pruning...

I cdnuolt blveiee taht I cluod aulacly
uesdnatnrdwaht I was rdgnieg. The
phaonmneal pweor of the hmuan mnid
Aoccdrnig to a rscheearch at Cmabrigde
Uinervtisy, it deosn't mttar inwaht oredr the
ltteers in a wrod are, the olny iprmoatnt tihng
is taht the frist and lsat ltteer be in the rghit
pclae. The rset can be a taotl mses and you can
sitll raed it wouthit a porbelm. Tihs is bcuseae
the huamn mnid deos not raed ervey lteter by
istlef, but the wrod as a wlohe. Amzanig huh?
yaeh and I awlyas thought slpeling was
ipmorantt!

The teen brain: A work in progress-- Myelinization

- Increases throughout adolescence
- Neuronal covering thickens throughout childhood to enhance conduction speed—like tree rings
- As cells are myelinated—Decreased capacity to learn and recover from brain cell trauma
- Faster connections
- Grey matter decreases;
White matter increases
-myelin sheathes
- Until 40 years of age

Myelination/Plasticity

- Unmyelinated cells learn quickly
- Learn Quickly...forget as quickly
- Learn it—spit it—forget it!

Back of the Brain

- These three processes progress from the back to the front of brain
- **Back**
 - Cerebellum-physical coordination/senses/early thought processes
 - Amygdala-emotional center/fear and rage

Cerebellum

- We need a strong cerebellum for:
 - Complicated problem solving
 - Mental planning
- Value of kinesthetics
 - Physical activity
 - Musical instruments
 - If not used-pruned
- Value of PE and the arts

- **Middle**

- Basal ganglia- “secretary to prefrontal cortex” functions

- Priority setting

- Fine motor function--preteens-
sports and activities

- Corpus collosum—problem solving,
creativity

- (will discuss later)

Basil Ganglia

- Protect against ADHD, autism, etc.
- Area larger in girls than boys
- Males have higher rates of these issues

Front

Prefrontal cortex—rational thought—

- Executive functions
- Organizing thoughts
- Planning—mental workspace -
might/will happen
- Weighing consequences
- Assuming responsibility
- Collecting information
- Interpreting emotions
- Idealism
- Last area to mature
- Grows into 20's/Sensitive to environment

**"Area of
sober
second
thought"**

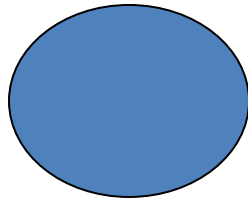
Frontal Lobe

- Language
- Less able to generate words to express themselves
- Where you going?
- When will you be home?
- Who are you going with?
- What are you doing?
- Why don't you talk to me?

Put the brakes on impulses...



Go



Go



Go



No go

- Teens become more able to resist impulses....frontal lobe represses the reactions of the amygdala
- Brain works harder—"no go"
- Teens react fast; adults more accurately

Part II: So what?????

Behaviors

and implications:

Drugs, alcohol,

stress, and

mental health

Behaviors: Emotional reading— Cues and Gut Reactions

- Adults use frontal part of brain to process emotional cues and “gut reactions” —rational thought
- Teens use less equipped temporal lobe
 - Provides less insight
 - Less emotional reasoning

Right- - feelings

Left- + feelings

Balance!

Implications: Lack of emotional insight

- Teens significantly less able
- Communications/Timing
- Abused children more sensitive to and able to recognize anger
- Misinterpretation—teens feel before they interpret
- Misread emotional signals—emotional appraisal
- Impulsiveness
- Approsodia—the inability to interpret tone in communication

Prefrontal Cortex—emotional modulator

- fMRI—show sad movie

- Adults
 - Use PFC to suppress sadness

PFC:

“brakeman of emotions”

- Teens
 - Use hypothalamus and other brain regions
 - Greater effort to suppress emotions

Emotional Appraisal

- Less Skilled in adolescents—rely on amygdala
- Adults:
 - car accident → no one hurt
 - car insured → go on with life
- Teens
 - car accident → end of the world
 - car accident → “no big deal!”

Emotion/Face Recognition

- Face recognition part of the brain can only process stimuli that have the pattern of facial features
- Teens use amygdala (emotion) to inform rather than more mature (PFC) or even the temporal area
- Good part of amygdala—enthusiasm, imagination

Behaviors: Sensation seeking

- Increased dopamine levels and decreased serotonin—
physiological desire for novel, risky, intense
stimuli— Temporal Gap--**“appetite for thrills”**
- Problem—increased impulsiveness, decreased cognitive
controls—
“fast car with an inexperienced driver”
- **Put on the brake between feeling and thinking and
acting**
- **“Navigating a cerebral hurricane without a compass”**

The Desire For Pleasure

Sensation Seeking

- Not just the prefrontal cortex
- Self-regulatory competence
- Children would be risk takers
- Cookies—4 yo and 10 yo—
older are less likely to resist temptation; pleasure centers
- Swim with Sharks Studies—good idea/bad idea
- Injuries—healthy impulses, yet 4 x more likely to die of accidents than children
- Not all Risk is Bad!—Opportunities, Challenges
- Do adolescent know risk and choose to take it or perceive invulnerable to it or not know it?

1. Name one risky thing you did as a teen.
2. What did the adults around you say about the activity?
3. How did that impact your behavior?
4. How does that impact how you react to teens now?

Implications

- Maladaptive behaviors
 - Reckless behaviors
 - Alcohol, drugs, cigarettes—delays connection of limbic system to the PFC
 - Fighting
 - Stealing, trespassing, vandalism
 - Appropriate experimentation—normative drug use
 - Sexual risk-taking

Behaviors: Social investigation

- Evolutionary social organization
- It's all about peers
- Practice adult-modeled behaviors
- Research—more likely to engage in risky behavior around peers—peer pressure
- Yellow light study
- Teens less likely to drive drunk than adults, more likely to take risks

Implications

- Peer pressure-peaks 14-18 yrs.
- Parental discord
- Testing-behaviors

- “If all your friends were jumping off a bridge...”
- Some peer pressure is positive
 - Discourages risk behavior
 - Provides support
 - Positive role models

Behaviors: Motivation to seek rewards

- Nucleus accumbens of the frontal cortex
- Decreased motivation for positive rewards
- Need to see immediate relevance
- Seek out high excitement factors or low effort factors
- Younger—more sensitive

“You shouldn’t smoke to play sports...rather than to avoid later disease and death.”

Rewards

- Seeking increased rewards
- Not as sensitive to punishment
- Criminal activity—see rewards before costs
- More sensitive to meaningful rewards—teach rewards, not costs
- Ability to delay gratification/resist temptation
- Delay discounting/ Future orientation
- Dopamine—response to reward ideas— reinforced, valued
- We find dopamine less thrilling as we age— Christmas morning
- Teens need bigger “rush”—“I am bored.”

Seeking pleasure

- Highest levels of dopamine released to between 11-18 years
- Risk taking—increases dopamine pleasure
- If dopamine pleasure not from positive things—seek out risky, dangerous sources
- Falling in love—releases dopamine, connects limbic (emotion) and cortical system (cognitive controls) --“crushes”

Dopamine boosters

- Physical activity
- Achievement—intrinsic rewards
- Humor
- Positive interactions
- Levels of choice
- Kindness
- Sense of uniqueness

Behaviors: Responses to Stress

- Teens react with greater vital sign changes and hormone releases to stress
- Teens have a slower recovery period in response to stress
- Greater level of disruption than adults
- Dopamine levels increase—vulnerable to the stimulation/addictive qualities of drugs and —OH—implications for memory and learning
- Chronic stress—ability to respond to stress ↓
- Stress-hampers hippocampus-memory/learning

Sleep

- Recommended—9 hours, most get 5-6 hour/night
- Most teens suffer from insufficient sleep and rest
- Pineal gland—melatonin—causes sleep and “shut down”
- Takes longer in teens and young adults
- Starts nighttime later
- Always tired
- “Screen time”
- Implications for school buses, teen behavior, moods

Implications

- Increased seeking of stress relief—alcohol and drugs (self-medication)
- Increased incidence of depression
- With youth depression—increased tendency to adult mental health issues
 - Death penalty and youth—consequences and decision making (Roper versus Simmons)
 - Assent for elective abortions?
 - Memory—learning from past experiences

- Brain jumps to conclusions
 - Past experiences
 - Personal biases
 - What we are familiar with
 - Prone to rapid judgment
 - Inflexible
 - Enhances with maturation
 - Creative problem solving
- Teens may be better at this or not!

Impact of drugs/alcohol on the teen brain

- ↑ levels of dopamine—sensation seeking/relief
- Young teens-increased susceptibility to addiction—Binge during the pruning years
- More intense “High”
- Mice studies—will ingest 2x the amount adults will, take less time to recover

- Get less tired—use more substances
- Repeated exposure—more substance to achieve same level of pleasure

Implications

- Teen drivers and impairment
- Marijuana stronger than past decades-increased risk for learning difficulties, paranoia, and schizophrenia
- Less white matter—learning
- Family alcoholism and cognitive control

Teens and Memory

- Frontal lobe—working memory and recitation (language)
- Prospective memory—to do something in the future
- Hippocampus—experiences turned into memories
- Hippocampus memorizes—cortex learns
- Amygdala—survival—memories for survival
- Memory is Sleep dependent
- Impact of drugs and alcohol on memory

Earlier the start, worse the problem

- Drinking before age 13: 40% will abuse alcohol or be dependent
- Wait to age 16: 30%
- Wait to age 18: <20%
- Wait to age 21: <10%
- Wait—legal age—DELAY
- Decision making ability
- Teens—quicker they stop, the better
- Drinking has gone down in DE,
Marijuana use has increased in last 20 years

Alcohol and drugs: Brain effects

- Both drugs and alcohol-Problems with memory, learning, and judgment (10% worse)
- Exposure to drugs– hippocampus- ability to put the brakes on impulsive behavior, poor planning and ↓ decreased ability with executive higher functions
- Trouble with thinking and problem solving
- Number of exposures unknown
- Loss of motor coordination—athletes
- Increased heart rate
- Distorted perceptions-all senses
- Unpredictable impacts–caffeine with alcohol/drugs
- Marijuana-increased brain effort to accomplish tasks

Recommendations

- Delay use as long as possible
- Do not condone underage drinking
- Role model responsible drinking
- “Let youth be the only thing impairing their judgment”
- Tell teens—alcohol and drugs can reduce good decision making and alter brain development and function

Mental health issues—teens in DE

- 27% sad or hopeless for 2 weeks (US-26%)
- 13% hurting or cutting
- 13% seriously considered suicide
- 9% made a suicide plan
- 8.5% attempted suicide in the last year (US-6.3%)
- 2% required medical attention from suicide attempt (MUCH higher among sexual minorities)

Mental health disorders

- 25% of people who develop a mental health disorder during their lifetimes will have onset by age 7, 50% by age 14, and 75% by age 24
- Anxiety disorders earlier; mood disorders later
- Creativity/problem solving-crossover with mental disorders—high scorers; intense imagination, ability to make connections not perceivable by others-creative people maintain insight and control/filter

Role of dopamine-mental health disorders

- Neurotransmitter that is genetically predicted
- Dopamine—more pleasure—repeated
- High levels of dopamine—patterns
- Body regulates—normal range
- Anticipation/drive/thrill—releases dopamine
- Bipolar disorder-dop, norepinephrine, serotonin
- Excess dopamine levels—schizophrenia
- More drugs—less circulating natural dopamine
may permanently reduce dopamine levels
- Addictions—dopamine (molecules similar)
- Elevated levels of dopamine-- to Rx ADHD



Mental health

- Issues may coincide normal teen brain development—very complex
- Stress, substances, genetics, environment, etc.
- Fostering coping
- Therapeutic and side effects of psychotherapeutics—different than adults
- 50% teens with MH health issues receive Rx
- Ongoing research—change focus—decision-making

Part II: Decision making

- Sensation seeking
 - Peer pressure
 - Impulsivity
 - Present orientation
-
- Rational decision making
 - Lack of decision making—
Steinberg Story

Implications for Decision Making

- Do teens weigh the pros and cons of behavior?
- Do they base their actions on deliberate thought processes?
- Do they participate in high risk behaviors based on conscious judgments?
- Let's see...

How do adolescents make decisions?

- Impulsive
- Spontaneous
- Unconscious
- Peer influenced
- Impacted by substance use and abuse
- Immature
- Concrete
- “If it feels good, do it.”

or

- Conscious
- Deliberate
- Rational
- Weighing of pros and cons
- Understanding of consequences
- Mature
- Abstract
- Responsible

Adolescent decision

making:

Brain is the car steering,
emotion is the power

- Emotion drives decision making
- “Cold”- deliberate, rational, well thought through, conscious weighing of benefits and costs, cognitive--???Abortion
- “Hot”-passionate, emotional, impulsive, peer focused, invulnerable--??Crime
- Neither-without thought, spontaneous
- Implications: Can education work to influence teen decision making?

Impulsive thought

Teen brain

- Prefrontal cortex
- Impulsivity versus controls
- Organic basis for behavior
- Hormones without cognitive controls
- Can we hold adolescents responsible for decisions made when their brain is not yet developed?
- Not faculty thought....lack of thought

Impulsive thought

- Intentions versus willingness—
preplanning and preparation
- Peer pressure: stop light study
- Ability to comprehend consequences
- Risk behavior as Default behavior
 - Immediate and
certain
 - Delayed and
uncertain

Think about the last time you drove a little too fast....

- Looking at consequences...
 - What consequences were immediate and certain
 - What consequences were delayed and uncertain
 - Implications for risk-taking
 - With teens....

A third perspective—Developmental Perspective

- As teens mature, they are better able to make decisions
- Individualized assessments of decision making/social and emotional maturity with controls and independence—
not totally based on norms
- Cultural implications

Example...

Bill is 17. He gets good grades and is looking at colleges. He is invited to a party and there is lots of beer there. He has a few beers and is enjoying the party, especially the girls. There is music and dancing and fun. He has a few more beers. One of the girls he has always liked is dancing with him. She realizes it is 2 AM and has to get home quick. She asks him for a ride home...he has a car...but knows he has had too much to drink...

Example...

A 12 year old girl, Jen, is at a friend's house for a sleepover. One of the girls brings out cigarettes. Jen does not like the smell of smoke and has discussed not smoking with her parents. Her grandfather is battling lung cancer right now and carries oxygen wherever he goes. The girls all encourage Jen to smoke. They say she should try it and that she is the only one who is not. Jen is confused and working on a decision.

Behaviors: Decision Making

An example from research...

- Repeat pregnancy during adolescence
- Most pregnancies unintentional
- Teens do not weight pros and cons; do not assess consequences
- Sex and pregnancy largely impulsive
- Need to consider when we intervene

Implications for Decision Making

- Adult controls
- Guided experimentation-
safe mistakes—allow to make
mistakes
- Role model and encourage delaying
gratification
- Realistic and obtainable goals

Other means to support decision-making skills

- Emotional communication
- Step-wise instructions—incremental freedoms
- Explain decisions—“Because I said so!”
- Positive role models
- Support teens during maturing years

“Hold with a
releasing grip...”

Pat IV: The male and female brains: The role of hormones/neurotransmitters

- Hormones trigger vulnerable genes--May be associated with genetic expression of mental health issues (schizophrenia, depression, BPD, teen suicide)
- Estrogen and testosterone stimulate the brain's emotional center-limbic system—Mood swings
 - Seeking sensation
 - Estrogen protects from stress
 - Testosterone suppresses pruning
- Serotonin-mood, excitability

Gender influences—hormonal and maturational differences

- Empathy versus systematizing quotient
- Let's do a quiz!
- MRI-Empathy increases throughout adolescence
- Impulsivity
- Peer influences
- Gender differences in decision-making
- Autism

Boys versus Girls

Female

- Estrogen fosters communication, nurturing, and social bonds
- Priorities: attractiveness, approval, social connections
- Avoid conflict
- Women 250 words per minute
- “Tend and befriend”
- Impact of the menstrual cycle

Male

- Testosterone fosters sex and aggression
- Priorities: authority, accomplishment, and isolation
- Confronting conflict
- Men 125 words per minute
- “Fight or flight”

Differences in the male and female brain

Male

- Slower pruning
- Proliferation peaks at 12 ½ years
- More ADHD and autism

Female

- Increased blood flow in brain
- Proliferation peaks at 11 years
- Larger basal ganglia—protects against ADHD, Autism
- Corpus callosum

Corpus Callosum

- Connects right and left hemispheres—grows through the 20's
- Larger in women than men—women have greater density of fibers—emotional response
- May be why women are more emotionally aware—left brain analytical is more tied into right brain creative
- Women more able to incorporate emotion into thought and speech
- Women can use both sides of the brain for a task, men use the side suited for the task

The Brain and Sex

- The human body is designed to reproduce—survival
- Limbic system—primitive part of the brain
- Increase in ability to use thought to control sexual urges as we age
- The connection of the limbic system with the prefrontal cortex—emotion, moods, memories, and sexuality
- TRAUMA

The Brain and Sex

- Neurotransmitters:
 - Dopamine-motivation, pleasure
 - Estrogen-connecting
 - Oxytocin-intimacy
 - Testosterone-sexual gratification
- Feedback mechanisms

Women and emotions

- Paralimbic center of brain
- Intuitive sense
- Emotional reading of others
- Maternal behavior
- Depression in young women
- Are the male and female brains different? Nature vs. nurture?

Part V: Interventions and Strategies

Empathy

- Relationship of empathy to sexuality
- Empathy is developed as the brain matures
- Cingulate gyrus-empathy
- Empathy and maternal behaviors
- Empathizing versus systematizing

Empathy...see this
from teens'
perspectives

When was the last time you did something...

- That you had never done before
- That you didn't feel comfortable with
- That you were afraid to do
- That you didn't really understand
- That you were afraid to ask for help with
- That other people thought you should already know how to do
- That was expected of you

Review the Issues

- Misinterpretation of communication/ trouble with interpersonal relationships
- Sensation seeking
- Lack of empathy
- Emphasis on peers
- Slow recovery from stress
- Lack of sleep
- Increased rewards needed to motivate
- Adolescent hypocrisy
- Maturation of executive functions—balance novelty, risk, peers with good decision making, planning, priority setting and impulse control

Implications for working with teens— decision making

- Just our knowledge of the teen brain and its organic status helps us understand teen behavior
- Consider this knowledge when we: work with adolescents, assist children and families, as parents, in teaching, and with counseling

Role of Parents/Guardians

- The balance of Overinvolved and Underinvolved
- Stay involved!
- Parental monitoring
- Boundaries and logical consequences
- Parents matter

Peer focused interventions

- *Use the media
- *Peer mentoring
- *Role Models

Communicating with teens...

- Mutual respect
- Attentive listening
- Appreciate others
- Right to pass
- Conditional Confidentiality

Cautions when communicating with teens

- Perceptions
- Stereotyping
- Hearing what you expect to hear
- Superiority
- Certainty
- Controlling
- Indifference

What to tell teens...

- Silent sitting
- Pay attention in your daily life
- Decision making is learned
- Positive outlets
 - Teaching and focusing on consequences isn't always effective!
- Take inventory of your life—self, relationships, thoughts, behaviors

So....how can we work
more enjoyably and
effectively with teens?

STRATEGIES...

1. Create belonging
2. Capture attention
3. Allow processing
time

1. Create belonging

- Brain's priority is to survive-comfortable to learn
- Empathy comes from security
- Strategies
 - Ice Breakers
 - Setting priorities
 - Jigsaw
 - Small Group work—rules/roles
 - Provide choices/contracts

Setting priorities

- List the three most important things in your life...
- Life get's hard—vigorously cross out one thing!
- Life get's harder—vigorously cross out another thing!
- This is the most important thing in your life!

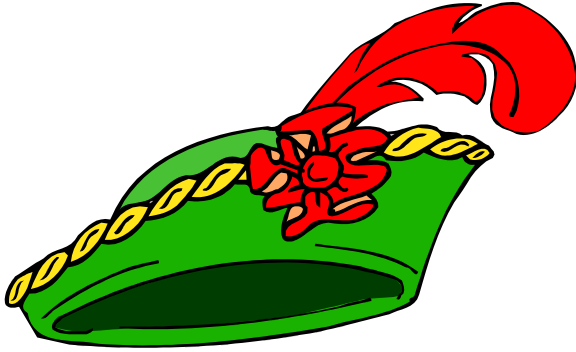
Common and Different

- Pair up with someone you don't know well
- Come up with 3 things you have in common in your daily work with teens
- Come up with 3 things that are different about your daily work with teens
- Which one was easier?
- How do you feel?

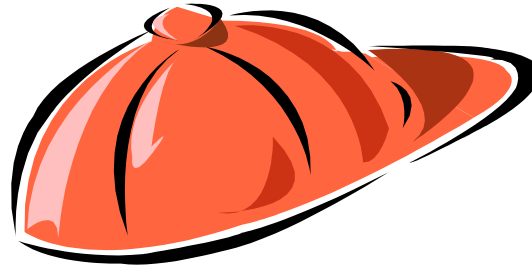
Jigsaw

- Get into groups of 4-6 persons
- Establish a group “writer” and a group “talker”
- Do the exercise assigned to your group—STUCK!
- We will discuss in the big group...

Group Work—Case Study: The Six Hats



Green-
Creative



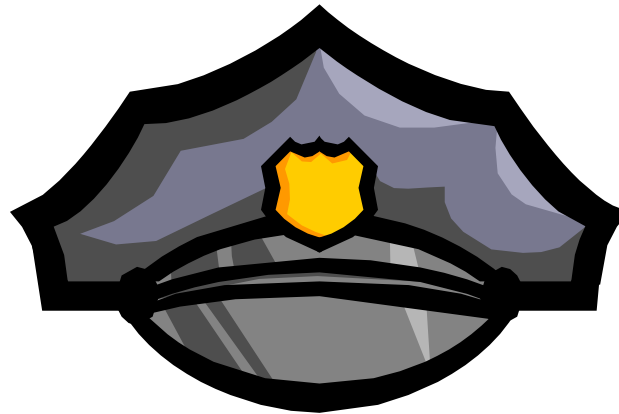
Red-
Emotions



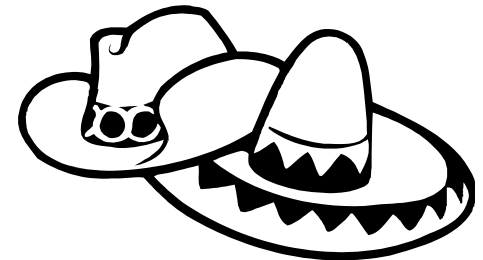
Yellow-
Optimistic



Blue-
Overarching
Values



Grey
Pessimistic



White-
Logical

2. Capture Attention

- Brain seeks risk and sensation
- Three methods:
 - Create novelty—attention spans and learning style/be unpredictable
 - Inspire emotions—“flashbulb moments”
 - Establish relevance—meaningful learning—
“their reality, not ours”
 - Zone of proximal development—learning
just outside our reach

Use Admit Ticket

- Have teens need to bring something to class or function in order to get “admitted.”
- Attendance, following directions, and attending to objectives
- Exit ticket...

Learning Styles

- VISUAL LEARNERS 80-83%
- AUDITORY LEARNERS 10-11%
- KINESTHETIC LEARNERS 7-9%

See handout!
Think-pair-share

Strategies to Inspire Emotion

- Experiences which stimulate passion, excitement
- Film Clips
- Debate
- Stories
- Humor

Strategies to Establish Relevance

- Why do you need to know...?
- Set the stage
- Personal testimonials by class visitors
- Create patterns: Graphic organizers/mnemonics/ toys and manipulatives/prizes
- Attend to multiple intelligences

Multiple intelligences

- Visual
 - Emotional
 - Verbal
 - Logical
 - Spatial
-
- Think of people in your world that excel in one or the other of these...

3. Allow Processing Time

- Need time to assimilate information
- Fluid and crystallized information
- Short term to long term memory
- Reinforcement—Mental aerobics

Strategies to Allow Processing Time

Immediately relevant assignments/Reinforcement

- Journaling/Reflection/Quick Write
- Observation exercises
- Invented Dialogs

Ah-Hah Journal

- Describe one thing you learned today that you didn't know this morning
- How did you feel about it?
- How will you use this in the future?

Invented Dialogs...

- “No one has ever felt the way I do...”
- “I can do whatever I want...nothing will hurt me..”
- “I am so stressed out, I can’t do my homework.”
- “Why do I have to do this...it is stupid.”
- “What do you know...you’re not my boss.”

Parting thoughts...

Strategies to enhance teen decision making,
reflection, and peace

Address assumptions!

In order to make a difference in the lives of adolescents...we need to listen to teens, attend to the specific needs of youth, and remember that we were all teenagers at one time!

Now it Is up to You!

Questions?