

Life Skills Training: An Evidence-Based Approach for Preventing Alcohol, Tobacco, Illicit Drug Abuse and Violence

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Overview

- Background and Rationale
- Description of LST Approach
- Evidence of Effectiveness
- Implementation Issues
- Teaching LST
- Discussion

Early Prevention Efforts: Ineffective

- Health Information
- Scare Tactics
- School Assembly Programs
- Ineffective
- Drug information programs *increased* use in some studies

Evidence-Based Approaches

- Tested and Proven Effective
- Well-Designed (Randomized Control Trials)
- Carefully Executed
- Rigorous Research Methods
- Appropriate Data Analysis
- Published in Peer-Reviewed Journal
- One or More Replications

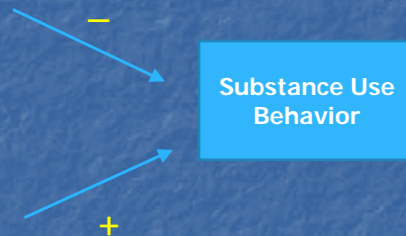
School-Based Prevention



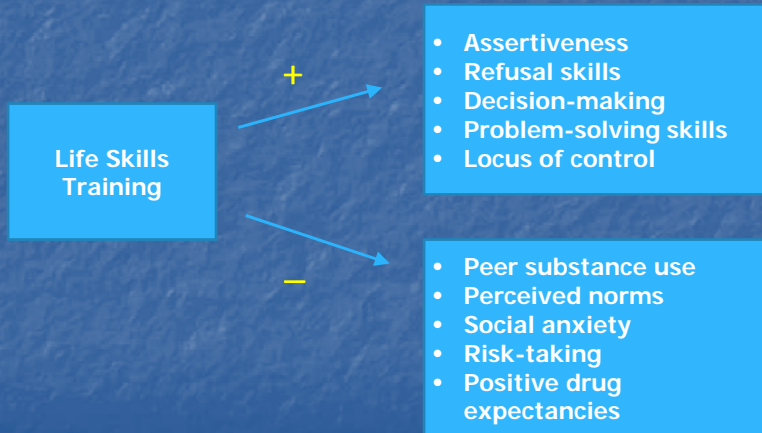
Etiology Studies Show Hypothesized Mediating Variables Associated with Adolescent Substance Use

- Assertiveness
- Refusal skills
- Decision-making
- Problem-solving skills

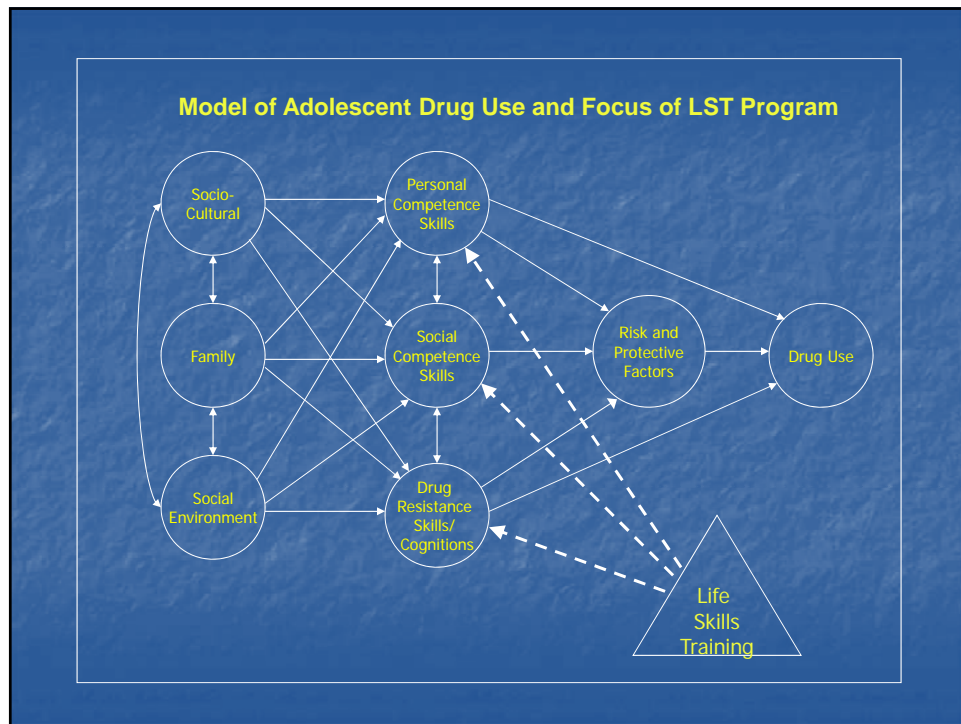
- Peer substance use
- Perceived norms
- Social anxiety
- Risk-taking
- Positive drug expectancies



Intervention Effects Observed on Key Hypothesized Mediating Variables



Life Skills Training: Conceptual Model and Brief Description



Life Skills Training



- Middle School (Grades 6, 7, 8)
- Junior High (Grades 7, 8, 9)
- Year 1: 15 Class Periods
- Year 2: 10 Class Periods
- Year 3: 5 Class Periods

Life Skills Training

Major Components

- Personal Competence
- Social Competence
- Resistance Skills, Attitudes and Norms



Personal Competence Skills

- Problem-Solving and Decision-Making
- Personal Behavior Change Skills
- Stress and Anxiety Management



Social Competence Skills

- Communication Skills
- Greetings and Brief Social Exchanges
- Meeting New People
- Conversational Skills
- Complimenting Skills
- Assertive Skills



Resistance Skills/Norms

- Awareness of Drug Use Influences
- Anti-Drug Use Norms
- Resistance Skills



Content of *Life Skills Training* Prevention Program

<i>Session Content</i>	Number of Classes per Grade Level		
	<i>6/7th</i>	<i>7/8th</i>	<i>8/9th</i>
Substance Use Information	4	1	0
Decision making	2	1	1
Media influences	1	1	0
Self-directed behavior change	1	0	0
Anxiety management	2	2	1
Communication skills	1	1	0
Social skills	2	1	1
Assertiveness	2	3	2
TOTAL	15	10	5

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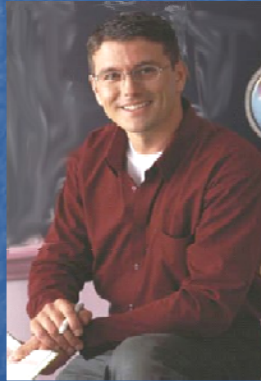
Program Providers

- Health Educators
- Prevention Specialists
- Peer Leaders
- Teachers

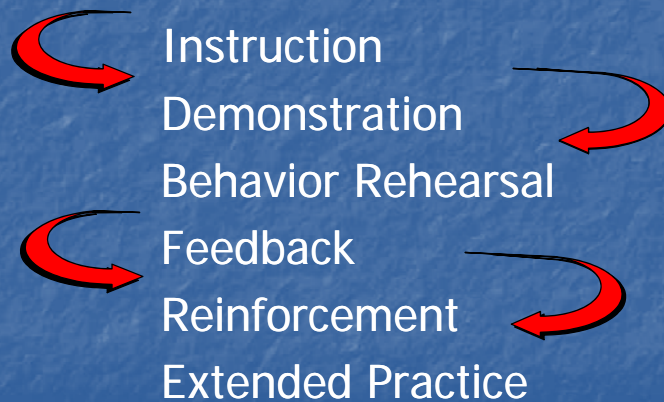


Teaching Methods

- Facilitate Discussion
- Teach Skills
- Provide Reinforcement
- Provide Opportunities for Skills Practice



Skills Training



Effectiveness

Evidence of Effectiveness

- Over 30 Peer-Reviewed Studies
- Short, Intermediate, and Long-term
- Majority and Minority Youth
- Tobacco
- Alcohol and Illicit Drug Use
- Other Health Outcomes
- Independent Replication

Recognition

- Blueprints “Model” Program
- NREPP
 - 3.9 (4.0) Quality of Research
 - 4.0 (4.0) Readiness for Dissemination
- Coalition for Evidence-Based Policy
 - Selected as “Top-Tier” Program
- US Department of Ed “Exemplary” Program

Research Design

- A cohort of students from NYC predominantly minority schools participated in a group randomized prevention trial

Grade:	7th	8th	9th
Intervention	O X O	X O	X O
Controls	O O	O	O
Note: X = preventive intervention (Life Skills Training, or LST) O = observation point (self-report survey)			


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Methodological Issues

- RCT: Cluster Randomization
- Validity of Self Report
- IDs for Tracking Individual Students
- Pretest Equivalence
- Differential Attrition/Data Loss
- Appropriate Analysis (ICCs, Covariates)


Student Health Survey

Marking Instruction:
Fill in bubble(s) completely



Please Use #2 Pencil

To change your answer, erase completely



EXAMPLES

Right
Wrong
Wrong
Wrong

Researchers from Cornell University are conducting a survey to learn more about health knowledge, attitudes and behavior among teenagers. **THIS IS NOT A TEST. DO NOT PUT YOUR NAME ON THIS SURVEY.** We will give you a code number which will allow us to keep your name secret. No information will be given to your parents, teachers, or school officials so please answer all of the questions honestly.

We appreciate your help in this survey and hope you enjoy taking part in it.

CODE

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
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PART I

Directions: Please indicate your response for each of the following questions.

1. What is your birth date?

Month	Day	Year
<input type="checkbox"/> Jan	<input type="checkbox"/> 01 <input type="checkbox"/> 01 <input type="checkbox"/> 01	<input type="checkbox"/> 1992
<input type="checkbox"/> Feb	<input type="checkbox"/> 02 <input type="checkbox"/> 02 <input type="checkbox"/> 02	<input type="checkbox"/> 1993
<input type="checkbox"/> Mar	<input type="checkbox"/> 03 <input type="checkbox"/> 03 <input type="checkbox"/> 03	<input type="checkbox"/> 1994
<input type="checkbox"/> Apr	<input type="checkbox"/> 04 <input type="checkbox"/> 04 <input type="checkbox"/> 04	<input type="checkbox"/> 1995
<input type="checkbox"/> May	<input type="checkbox"/> 05 <input type="checkbox"/> 05 <input type="checkbox"/> 05	<input type="checkbox"/> 1996
<input type="checkbox"/> Jun	<input type="checkbox"/> 06 <input type="checkbox"/> 06 <input type="checkbox"/> 06	<input type="checkbox"/> 1997
<input type="checkbox"/> Jul	<input type="checkbox"/> 07 <input type="checkbox"/> 07 <input type="checkbox"/> 07	
<input type="checkbox"/> Aug	<input type="checkbox"/> 08 <input type="checkbox"/> 08 <input type="checkbox"/> 08	
<input type="checkbox"/> Sep	<input type="checkbox"/> 09 <input type="checkbox"/> 09 <input type="checkbox"/> 09	
<input type="checkbox"/> Oct	<input type="checkbox"/> 10 <input type="checkbox"/> 10 <input type="checkbox"/> 10	
<input type="checkbox"/> Nov		
<input type="checkbox"/> Dec		

2. Are you?

☐ Female

☐ Male

3. Who do you live with most of the time?
(Fill in only **one**)

☐ Both my mother and father

☐ Only my mother

☐ My mother and stepfather

☐ Only my father

☐ My stepmother and father

☐ Some of the time in my mother's home and some in my father's

☐ Other relatives (aunt, uncle, grandparents, etc.)

☐ Guardian or foster parent who is not a relative

☐ No parents or guardians (I live alone or with friends)

PART II

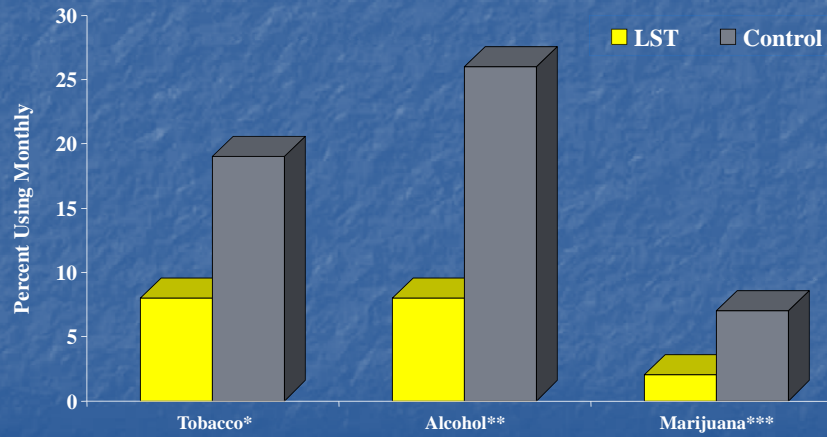
Directions: Under the column heading tell us how often (if ever) you generally do or have done each of the following things. **Remember only the Cornell researchers will know how you answered these questions, so please be honest.**

About how often (if ever) do you:	Never	A few times but NOT in the past year	A few times a year	Once a month	A few times a month	Once a week	A few times a week	Once a day	More than once a day
1. smoke cigarettes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. drink beer, wine, wine coolers or hard liquor (excluding use during religious ceremonies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. drink until you get drunk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. smoke marijuana or hashish (pot, reefer, weed, blunts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. smoke marijuana or hashish until you get high or stoned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. take someone else's prescription medication (not prescribed for you) to get high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. use over-the-counter medications such as cough syrup to get high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Short-term and Intermediate Effects

Life Skills Training

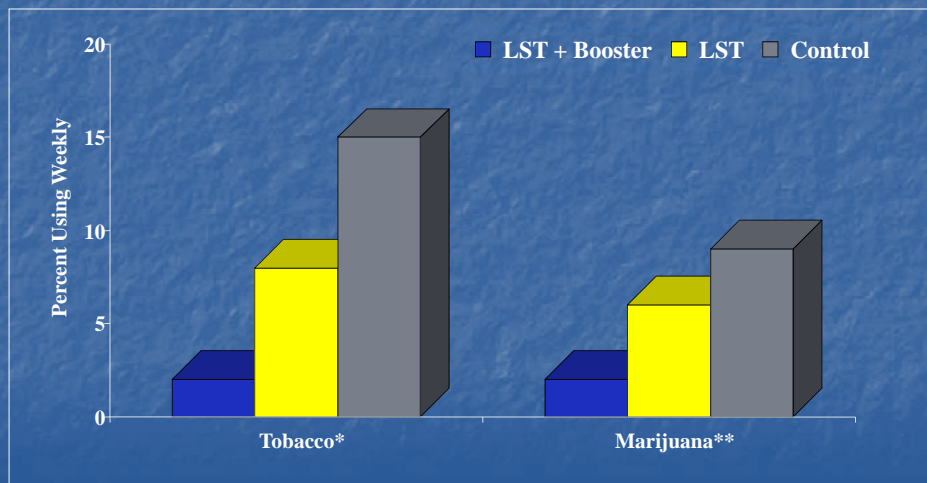
Initial Effects



Source: *Botvin et al. (1982), ** Botvin, Baker et al. (1984), *** Botvin, Baker, Renick et al.(1984).

Life Skills Training

Booster Effects

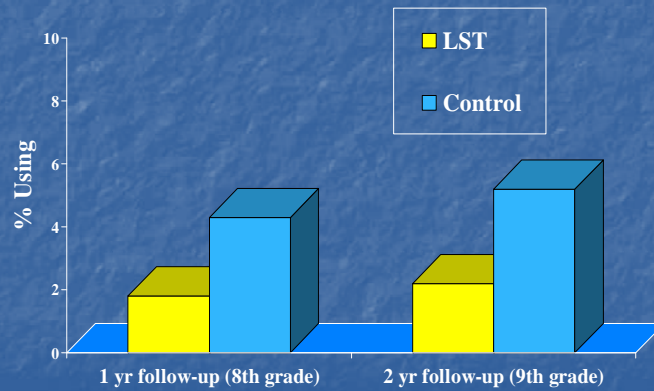


Source: *Botvin et al. (1983), ** Botvin et al. (1990)

Life Skills Training

Binge Drinking

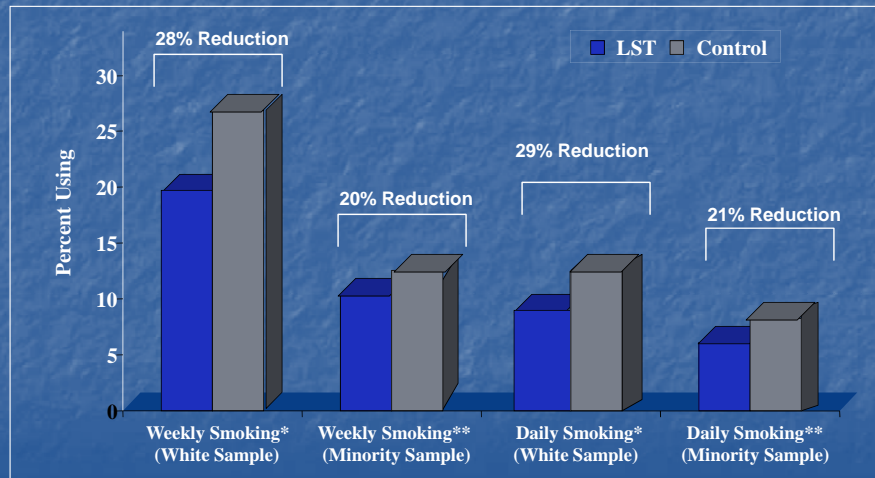
(Botvin et al., 2001)



Long-Term Effects:
5-Year Follow-Up
(Grade 12)

Life Skills Training

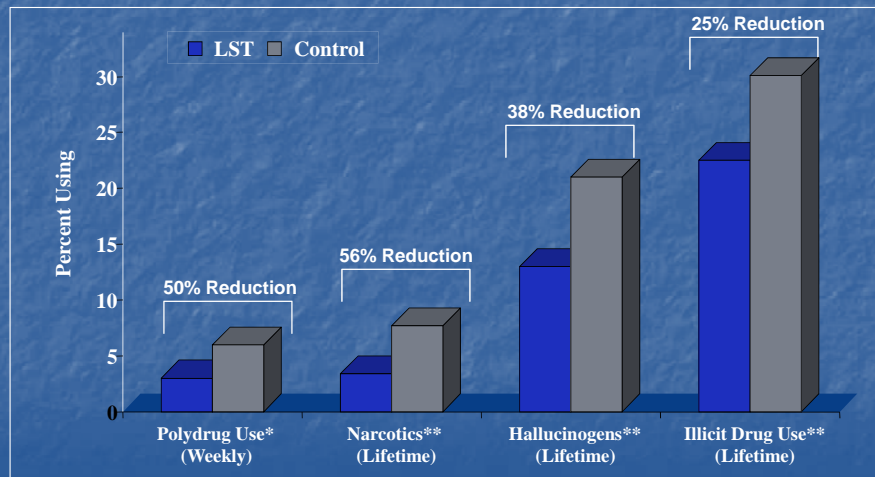
Long-Term Effects: Smoking



Source: *Botvin et al. (1995), ** Botvin et al. (2004)

Life Skills Training

Long-Term Effects: Gateway Poly-drug Use & Illicit Drug Use



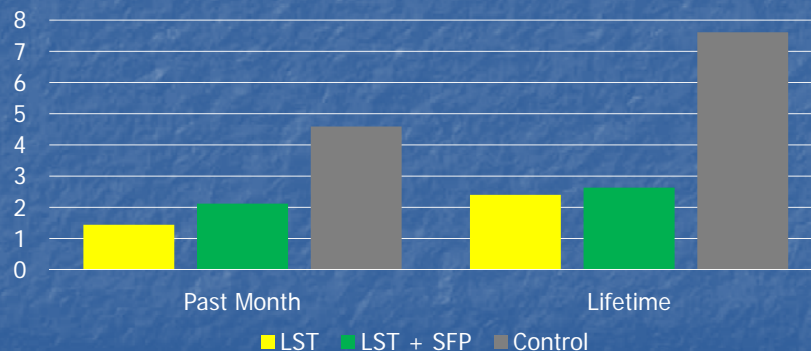
Source: *Botvin et al. (1995), ** Botvin et al. (2000)

LST Plus Family Approach

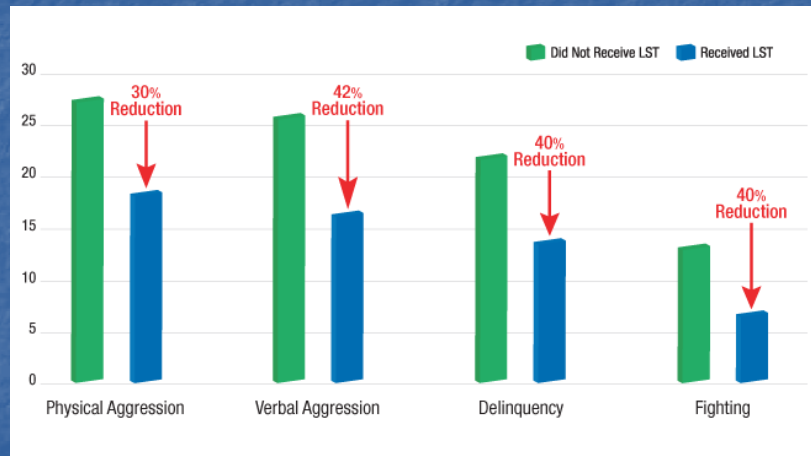
- Spoth et al. (2006, 2008)
- 1,677 students, 36 schools
- Grades 7 to 12
- LST alone and LST + SFP
- 5-year effects on ATOD use
- Meth Use

Prevention of Meth Use: Lifetime and Past-Month Use 6 ½ Years after Baseline

Spoth et al. (2006), Archives of Pediatrics
and Adolescent Medicine



Violence and Delinquency



Source: Botvin et al., Preventing youth violence and delinquency through a universal school-based prevention approach. *Prevention Science*, 2006

Long-Term Effects:
12-Year Follow-Up
(Young Adult)
Illicit Drug Use

Research Design

Grade	7th	8th	9th	10th	12th		Young Adult Follow-Up
LST	O X O	X O	X O	O	O		O
Controls	O O	O	O	O	O		O
Note: X = preventive intervention (LST) O = observation point (self-report survey)							Mean age of sample = 24

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Additional Findings

- Parent Program
 - Positive Role Model
 - Family Communication
 - Monitoring
 - Discipline
- Elementary School Program (Grades 3-5)
 - Reduces Cigarette Smoking
 - Reduces Alcohol Use

Potential Educational Outcomes

- Attendance, Engagement, and Commitment
- Safe, Supportive Learning Environment
- Ability to Handle Academic Pressures
- Pro-social Engagement with Teachers and Peers
- Promotion of Social and Emotional Learning
- Better Choices In and Out of Classroom

Summary

- Over 30 Peer-Reviewed Studies
- White, African-American, and Latino Youth
- Sizeable and Sustained Effects
- ATOD, Meth, Violence, Risky Driving
- Replication by Other Researchers
- \$25 Benefit for Each \$1 Spent

Conclusions

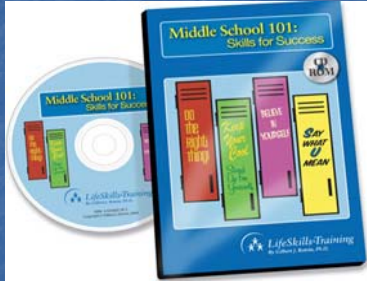
- LST = strong and lasting effects
- Widely Used
 - All 50 States in US
 - 32 Countries
- Approaches targeting school, family, and community offer greatest potential
- Promote use of proven approaches
- Increase funding for prevention

Program Materials



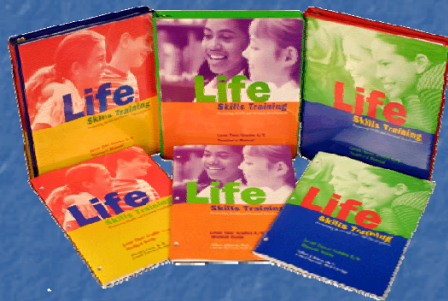
- Middle/Junior High School Curriculum
- Upper Elementary School Curriculum
- High School Curriculum
- Parent Program
- Workplace Program

Middle School 101: *Skills for Success*



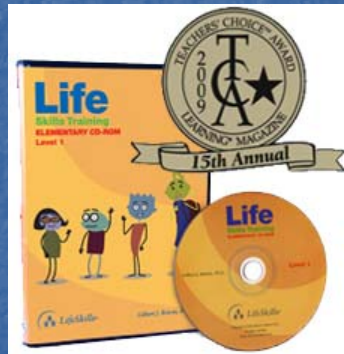
- Video-based CD-ROM modeled after the *LST* Middle School program
- Interactive video clips model students' using skills learned in the *LST* Middle School program
- Targets 6-8th grade students
- Ideal for use in computer labs or individual use at home

LST Elementary Program



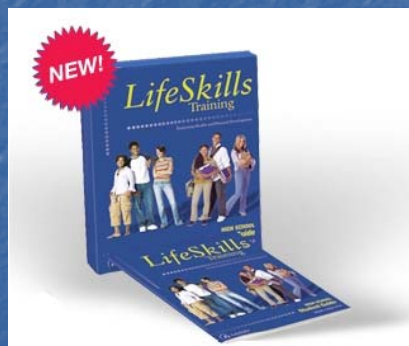
- Implemented in either 3rd, 4th, and 5th grades or 4th, 5th, and 6th grades
- Consists of 24 class sessions
- Develops students general social skills, personal self-management skills, and drug resistance skills
- Prevents tobacco and alcohol use
- CSAP Model Program and California Healthy Kids Resource Center Research-validated Program

LST Elementary CD-ROM



- Interactive animation-based CD-ROM that teaches essential life skills
- A variety of activities helps capture and keep student interest
- 8 essential life skills are taught through engaging activities
- Ideal for 3rd or 4th grade students
- Can be instructor-led or self-study
- Awarded the prestigious Teacher's Choice Award

LST High School Program



- Can be a stand-alone level or can be a booster for LST Middle School
- Implemented in 9th or 10th grade
- Consists of 10 class lessons
- Companion website provides additional activities and resources for teachers and students (www.lifeskillstraining.com/hsweb)

Translational Challenges

- User-Friendly Materials
- Prevention Infrastructure
- Effective Training Models
- Adequate Training Capacity
- Planning and Scheduling Issues
- Maintain Implementation Fidelity
- Technical Assistance
- Stable Funding

Thank You!



Thank You

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