



**Impact of Life Skills Training  
(LST)  
in  
Wayne County Schools  
Course Learning Objectives  
(2019 – 2020)  
&  
Longitudinal Analysis  
of  
2018 Sixth Grade Cohort  
  
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## **Summary**

Life Skills Training (LST) has been implemented in middle schools throughout Wayne County since 2017. This Research Brief describes changes in LST learning objectives for 6<sup>th</sup> grade students who took LST in the 2019 – 2020 school year. In addition, sixth grade students who completed LST in the 2018-2019 school year served as the cohort for longitudinal analysis. Sixth grade students completed the LST Health Survey prior to LST implementation in 2018, again, as 7<sup>th</sup> grade students in the fall of 2019, and as for a third time as 8<sup>th</sup> grade students in the fall of 2020. The current analyses support the effectiveness of Life Skills Training in changing knowledge, attitudes, and skills to reduce substance use and abuse. Analyses and interpretation take into account the disruption in school and home environments brought about as a result of the COVID-19 pandemic.

## **Background**

The Life Skills Training (LST) program, developed by Gilbert Botvin, is one the most extensively documented prevention programs in use today and is the most widely used universal substance abuse prevention strategy. LST has been evaluated extensively in controlled settings and is listed as a Model Program on the Blueprints for Healthy Youth Development, a project within the Institute of Behavioral Science at the University of Colorado Boulder and was listed on the Substance Abuse Mental Health Services Administration (SAMHSA) National Registry of Evidence-based Prevention Programs (NREPP). LST is an interactive classroom curriculum program that addresses substance abuse knowledge, perception of risk of harm from use of substances, refusal skills, communication skills, and other skills needed to resist the use of substances. LST begins with 15 classroom sessions in 6<sup>th</sup> grade followed by 10 booster sessions in 7<sup>th</sup>, and nine booster sessions in 8<sup>th</sup> grade.

In 2017, students in middle and high schools in Wayne County completed the Evalumetrics Youth Survey (EYS). The EYS provides scale scores representing 30 risk or protective factors. At that time, significant proportions of high school students scored above the risk level on lack of perceived risk of harm from drugs, perceived laws and norms favorable to drug use, and favorable attitudes toward drug use. Life Skills Training (LST) was selected as a model prevention program for Wayne County because of its potential effects on these and other critical factors. For example, LST is designed to increase students' knowledge about the negative effects of drugs and change students' perception of norms related to adult and peer use of alcohol, tobacco, and other substances. Life Skills Training is a universal prevention measure in the individual domain and is designed to increase protective factors. LST is considered a Tier I strategy in the Multi-Tiered Systems of Support (MTSS) model utilized in Wayne County schools.

LST was implemented in schools in Wayne county through the leadership of the Wayne County Department of Mental Health, with support from the Wayne County Department of Public Health and, in collaboration with the Wayne County Partnership of Strengthening Families. The project has had support and cooperation from 11 partnering school districts. Delphi Rise, an OASAS designated prevention provider, was primarily responsible for the LST instruction and

survey implementation. In three of the 11 districts, Delphi Rise educators were assigned as “consults” and co-taught the LST with a district assigned teacher.

### **LST Learning Objectives -Method**

In the fall of the 2018-2019 school year 6<sup>th</sup> grade students in Wayne County schools in which LST was implemented, completed the LST Health Survey to assess the status of students on LST learning objectives (pre-LST). In the fall of the 2019-2020 school year, the same cohort, as 7<sup>th</sup> grade students, completed the survey (post-LST). The LST Survey is completed on a web-based platform and does not collect any student identifying information.

The survey includes 52 multiple-choice items. Multi-item scales were calculated to measure each of 11 learning objective areas. These include:

1. ATOD Norms- This scale measures students’ perceptions related to levels of use of various substances by adults and peers.
2. Self-efficacy- Measures the extent to which students perceive they have control over events and outcomes in their lives.
3. ATOD Knowledge- Measures students’ knowledge about the effects of substances on the body.
4. Media Literacy- Measures students’ understanding of how media, (e.g. advertising) is intended to change people’s perception of alcohol or tobacco.
5. Relaxation Technique- Measures students’ knowledge of ways to reduce stress.
6. Social Skills- Measures students’ knowledge of strategies to resist substance use.
7. ATOD Image- Measures students’ perception of how their peers view substance use.
8. Resistance- Measures students’ ability to resist pressure to use substances.
9. Assertiveness- Measures the ability to active positively on one’s own behalf.
10. Relaxation Skills- Measures students’ use of positive strategies to reduce stress.
11. Perseverance- Measures students’ skills at staying with tasks until completed.

### **Impact of COVID-19 on LST Implementation and Data Collection**

In March of 2020, the COVID-19 pandemic resulted in school building closings and most students completing the schoolyear from home via virtual learning. In some schools it was possible to continue providing LST virtually while some schools cancelled LST and other activities other than instruction in core academic subjects. In several schools, LST had been

completed prior to the shutdown. In six of the 11 Wayne County Districts, 6<sup>th</sup> graders had completed the course prior to school shutdown or were able to complete all 15 sessions virtually. In five of 11 districts, the 7<sup>th</sup> grade and 8<sup>th</sup> grade boosters were completed. In addition, in the fall of 2020, many students were attending school virtually either full-time or partially, (i.e., hybrid) and thus, had to complete the LST Survey from home. In several schools, this resulted in samples sizes considerably smaller than the prior year. To compensate for these impediments, two adjusted samples were drawn. The first sample, which was used to determine change in learning objective status following the 6<sup>th</sup> grade course, utilized data from the five districts in which 6<sup>th</sup> grade students were able to complete the course in the 2019-2020 schoolyear and in which the number of 7<sup>th</sup> grade students completing the LST Survey in fall 2020, (i.e., post-test) was at least 70% of the number of 6<sup>th</sup> grade students who completed the survey in fall 2019, (i.e., pre-test). The second adjusted sample was comprised of four schools in which 7<sup>th</sup> graders completed the LST booster course during the 2019-2020 schoolyear and in which the number of 8<sup>th</sup> grade surveys in fall of 2020, (i.e., post-test) was at least 70% of the 7<sup>th</sup> grade surveys in fall 2019, (i.e., pre-test). Data from the 2018 LST Survey were drawn for the adjusted sample schools for purposes of cohort analysis.

### **LST Learning Objectives -Results**

Table 1 shows the pre-LST and post-LST mean scores on each scale and changes from fall 2019 (pre-LST) to fall 2020 (post-LST). Change was calculated for 6<sup>th</sup> grade students who completed the basic, 15-session LST course in the 2019-2020 school year and for 7<sup>th</sup> grade students who completed the 10-session booster course in 2019-2020 school year. Following the 15-hour 6<sup>th</sup> grade LST course, mean scores on eight of the 11 scales increased (improved). The largest gains were in Resistance Skills, (i.e., students' ability to resist pressure to use substances) which increased by 23.5% from 75.2% to 91.3%, and Assertiveness, (i.e., the ability to act positively on one's own behalf), which increased by 17.8% from 53.9% to 63.5%. There was also a 12.7% increase in Social Skills. ATOD Norms and ATOD Image had modest decreases while Perseverance decreased by 12.4%.

Following the 10-hour booster, 7<sup>th</sup> grade students, (i.e., 8<sup>th</sup> grade in fall 2020) showed improvement in four of the 11 scales including a 16.6% increase in mean score for Resistance. Most scales showed small declines, (i.e., less than four percent), though Perseverance declined 23.5% and Relaxation Skills declined 9.9%.

**Table 1**

| Wayne County Schools<br>Mean Scale Score | 2019<br>6th | 2020<br>7th | change | 2019<br>7th | 2020<br>8th | change |
|--|-------------|-------------|--------|-------------|-------------|--------|
| N=                                       | 189         | 230         |        | 182         | 127         |        |
| ATOD Norms-                              | 75.2%       | 73.0%       | -2.9%  | 73.4%       | 71.2%       | -3.0%  |
| Self-efficacy-                           | 75.6%       | 78.7%       | 4.1%   | 79.8%       | 79.3%       | -0.6%  |
| ATOD Knowledge-                          | 68.0%       | 70.2%       | 3.2%   | 69.7%       | 66.9%       | -4.0%  |
| Media Literacy-                          | 72.5%       | 74.4%       | 2.6%   | 70.3%       | 75.7%       | 7.7%   |
| Relaxation Technique-                    | 59.9%       | 63.9%       | 6.7%   | 63.7%       | 64.3%       | 0.9%   |
| Social Skills-                           | 70.2%       | 79.1%       | 12.7%  | 75.3%       | 78.4%       | 4.1%   |
| ATOD Image-                              | 93.2%       | 91.3%       | -2.0%  | 89.9%       | 89.5%       | -0.4%  |
| Resistance-                              | 75.2%       | 92.9%       | 23.5%  | 73.3%       | 85.5%       | 16.6%  |
| Assertiveness-                           | 53.9%       | 63.5%       | 17.8%  | 58.0%       | 56.7%       | -2.2%  |
| Relaxation Skills-                       | 63.2%       | 70.4%       | 11.4%  | 69.5%       | 62.6%       | -9.9%  |
| Perseverance-                            | 59.0%       | 51.7%       | -12.4% | 56.6%       | 43.3%       | -23.5% |

Sample includes Clyde-Savannah, Gananda, Marion, NRW, and Williamson

### Cohort Analysis -

The second analysis tracked the cohort of students who were in 6<sup>th</sup> grade during the 2018-2019 school year. Following the 15-session LST course, the 2018-2019 cohort improved on 10 of 11 scales. Mean scores on Social Skills improved 14.5% while Assertiveness improved 14.0%. ATOD Knowledge improved 12.3% and Media Literacy improved 11.4%. Following the 7<sup>th</sup> grade booster course, the cohort, now in 8<sup>th</sup> grade, still demonstrated skills above the baseline, (i.e., 6<sup>th</sup> grade) levels in seven of the 11 scales. ATOD Image and ATOD Norms showed modest declines while Relaxation Skills and Perseverance showed larger declines (-18.2% and -20.5%).

**Wayne County Schools**

**Sixth Grade 2018 -2019 Cohort**

| <b>Mean Scale Score</b> | <b>6th Grade Pre-LST (2018)</b> | <b>7th Grade Post-LST (2019)</b> | <b>Change 2018 - 2019</b> | <b>8th Grade Post LST (2020)</b> | <b>Change 2018 - 2020</b> |
|-------------------------|---------------------------------|----------------------------------|---------------------------|----------------------------------|---------------------------|
| N=                      | 487                             | 341                              |                           | 215                              |                           |
| ATOD Norms-             | 74.4%                           | 74.7%                            | 0.4%                      | 69.8%                            | -6.2%                     |
| Self-efficacy-          | 76.1%                           | 78.0%                            | 2.5%                      | 79.3%                            | 4.2%                      |
| ATOD Knowledge-         | 62.5%                           | 70.2%                            | 12.3%                     | 69.0%                            | 10.4%                     |
| Media Literacy-         | 63.2%                           | 70.4%                            | 11.4%                     | 70.8%                            | 12.0%                     |
| Relaxation Technique-   | 57.9%                           | 62.8%                            | 8.5%                      | 63.3%                            | 9.3%                      |
| Social Skills-          | 67.1%                           | 76.8%                            | 14.5%                     | 79.7%                            | 18.8%                     |
| ATOD Image-             | 90.3%                           | 91.9%                            | 1.8%                      | 89.3%                            | -1.1%                     |
| Resistance-             | 69.5%                           | 72.4%                            | 4.2%                      | 86.5%                            | 24.5%                     |
| Assertiveness-          | 51.5%                           | 58.7%                            | 14.0%                     | 57.8%                            | 12.2%                     |
| Relaxation Skills-      | 72.5%                           | 70.8%                            | -2.3%                     | 59.3%                            | -18.2%                    |
| Perseverance-           | 60.0%                           | 65.0%                            | 8.3%                      | 47.7%                            | -20.5%                    |

Sample includes Clyde-Savannah, Lyons, NRW, and Pal Mac

**Discussion**

Analysis of pre- and post-LST surveys indicated that most learning objectives were met based on increased mean scores on 10 of 11 scales in the LST Health Survey. These results indicate that sixth grade students who completed LST increased knowledge and skills that are critical to preventing substance use and abuse.

Cohort analysis indicated that the 2018-2019 6<sup>th</sup> grade cohort showed sustained improvement on seven of 11 scales. It is noteworthy that Relaxation Skills and Perseverance showed the largest declines (-18.2% and -20.5%). These two areas are the most likely to be negatively impacted by the disruption in school and social life due to the COVID-19 pandemic related situation.

Based on post-LST scores, several areas can be identified as potential target areas for additional prevention emphasis. These include Perseverance as well as Relaxation Techniques and Skills.

Results must be interpreted with some caution as the survey sample size in 2020 was considerably smaller than previous years due to school building closures due to the COVID-19 pandemic. The analyses conducted in the current report compensated for that by including only schools that completed LST in the past schoolyear and had adequate numbers of completed surveys. The environment in which LST was presented in spring of 2020 and the environment in fall of 2020, when the surveys were completed, was unique with some students attending school in person, many participating in classes online (virtual), and others attending school on some days and having virtual learning on other days (hybrid).

Impact evaluation is limited by the lack of a control or comparison groups as all sixth-grade students in all 11 districts in the county participated in the LST intervention. The Evalumetrics Youth Survey is being administered in the winter of 2020. Results from the 2015, 2017, 2019, and 2020 surveys will allow trend analysis reported use of substances as well as numerous root causes, (e.g., risk and protective factors) to add to the pre- post-LST learning objective analysis.