



THE Keystone

CTSP

&

Novice Driver Safety Educators

Newsletter

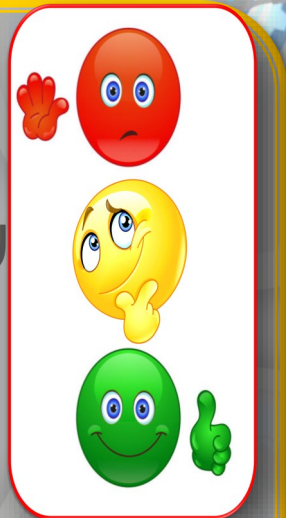
Volume 2 Issue 3 2021

SCHOLARS FORUM

ITUP



STOP,
Think,
&
GO



Decision Making Process

SWPBIS: Update



Made Possible Through a Grant From:



Institute for Rural Health & Safety

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Issue 2

Keystone CTSP

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LINKS

[IUP/IRHS Center for Transportation](#)

[PDE Driver & Safety Education](#)

[PennDOT Young Driver](#)



Hello!

In this issue, articles focus on the educational/behavioral and research aspects of the NDSP. The presentation of our research results in “Award Winning Presentation Poster—IUP Scholars Forum “. A summary of data is offered in “Update: High School Implementation of SWPBIS in Pennsylvania”. Finally, “Stop, Think, and Go-Decision Making Process” illustrates the NDSP presentation of the final piece of resource training material.

The IUP Scholars Forum is a competitive academic event that provides students the opportunity to present their research and other work for assessment by groups of faculty judges. These submissions range from performances and artwork to various types of research presentations. Doctoral candidate, Kathleen Ammerman, NDSP Assistant SWPBIS Coordinator, was presented the Outstanding Poster Award in the College of Education and Communications division with her presentation of our initial research results on teen driving behavior and their correlations with Driver Education and SWPBIS. Kathleen’s work is highlighted beginning on page 5 of this issue. Congratulations Kathleen, and thanks for bringing attention to our project!

Dr. Tim Runge provides an update on the latest data on SWPBIS it’s application in PA high schools.

Finally, the introduction to the *Stop, Think and Go Decision Making Process* was presented on May 24, with 15 participants. This is the concluding segment of the resource materials reworked by the NDSP for the PA Enhanced Driving Curriculum. The recording of this presentation will be available for several more weeks at : [Topic: NDSP Decision Making Presentation](#) Access Passcode: STG#2021



Award Winning Presentation Poster—IUP Scholars Forum



An Observational Study of the Relationship Between Driver Education Curriculum, School-wide Positive Behavioral Interventions and Supports, and Teen Driving Behaviors

Kathleen Ammerman, Kevin Wolford, Lou Pesci, Tim Runge
Indiana University of Pennsylvania
Institute for Rural Health and Safety

Introduction

- School-wide Positive Behavioral Supports and Interventions (SWPBIS) is an evidence-based intervention framework used in the school setting to efficiently deliver behavior, emotional, and social support to all students, regardless of level of need¹
- This data-based decision-making framework can be used in a variety of settings including but not limited to the classroom, the hallways, the cafeteria, and the school bus.
- The universal level of this framework consists of interventions provided to all students.
- One key component of SWPBIS that can be readily applied to safe driving behavior includes two primary elements:
 - explicit instruction on a target behavior
 - reinforcement of that behavior
- Does use of an evidence-based driving curriculum with an SWPBIS component for driving behaviors increase safe driving behaviors in the school parking lot?

Methods

- Observational data of student seatbelt and cell phone use while driving was collected in five school parking lots across multiple months during the 2019-2020 academic school year.
- Three schools implemented SWPBIS and reinforced seatbelt use and cell phone use in the school parking lot, in addition to using an evidence-based driver education curriculum
- Two schools served as controls:
 - One school implemented the driver education curriculum but not SWPBIS
 - Another school did not implement the driver education curriculum or SWPBIS

Preliminary data suggest there is relationship between safe driving behaviors—especially seatbelt use and cell phone use— and implementation of both SWPBIS and Driver Education.

Results

Seatbelt Use

Results indicated that seatbelt use was consistently higher in treatment schools when compared to control schools

- Across all months, 95.1% of drivers in the treatment schools were wearing seat belts, compared to 85.3% of drivers in the control schools.

Cell Phone Use

Cell phone use while driving in treatment schools was consistently similar to or lower than rates in control schools.

- Across all months, 0.6% of drivers in the treatment schools were using cell phones, compared to 2.5% of drivers in the control schools.

Discussion

- Preliminary data from this pilot study suggest that SWPBIS and an evidence-based driver education curriculum may be related to higher rates of seatbelt use and lower rates of cell phone use in the school parking lot.
- However, more data is necessary to provide stronger evidence for this claim.
- Further data collection with more schools, as well as statistical analyses should be done in the future to determine the strength of this relationship.

Financial Disclaimer: Results presented within are supported by a Notice Driver Statewide Program contract with Pennsylvania Department of Transportation Project #: DE-2019-02-00 and the National Highway Traffic Safety Administration (NHTSA).
Opinions expressed within are solely those of the authors and do not necessarily reflect the position of the funding agency or NHTSA, and such endorsements should not be inferred.

Outstanding Poster Award:-Graduate :

Kathleen Ammerman, “An Observational Study of the Relationship between Driver Education Curriculum, School-wide Positive Behavioral Interventions and Supports, and Teen Driving Behaviors”

Faculty Mentor: Dr. Timothy Runge

Presentation

Presented virtually Wednesday, April 7th, 2021

Title: An observational study of the relationship between Driver Education Curriculum, School-Wide Positive Behavioral Interventions and Supports, and Teen Driving Behaviors

Authors: Kathleen Ammerman, Kevin Wolford, Lou Pesci, Tim Runge

Background

School-wide Positive Behavioral Interventions and Supports (SWPBIS) is an evidence-based intervention framework used in the school setting to efficiently deliver behavior, emotional, and social support to all students, regardless of level of need (Sugai & Horner, 2009). This data-based decision-making framework can be used in a variety of settings including but not limited to the classroom, the hallways, the cafeteria, and the school bus. The universal level of this framework consists of interventions provided to all students. Direct instruction and systematic reinforcement of desired behaviors, a key component of SWPBIS, can be readily applied to safe driving behav-



iors. In the current pilot study, SWPBIS was used as an additional behavior support measure combined with an evidence-based driver education curriculum (adapted from Pennsylvania Department of Education, 2020).

Methods

Observational data of student seatbelt and cell phone use while driving was collected in five school parking lots across multiple months during the 2019-2020 academic year. Three schools implemented SWPBIS and reinforced seatbelt use and cell phone use in the school parking lot, in addition to using an evidence-based driver education curriculum. Two schools served as controls: (a) one school implemented the driver education curriculum but not SWPBIS; (b) another school did not implement the driver education curriculum or SWPBIS.

Results

Seatbelt Use

Results indicated that seatbelt use was consistently higher in treatment schools when compared to control schools. Across all months, 95.1% of drivers in the treatment schools were wearing seat belts, compared to 85.3% of drivers in the control schools.

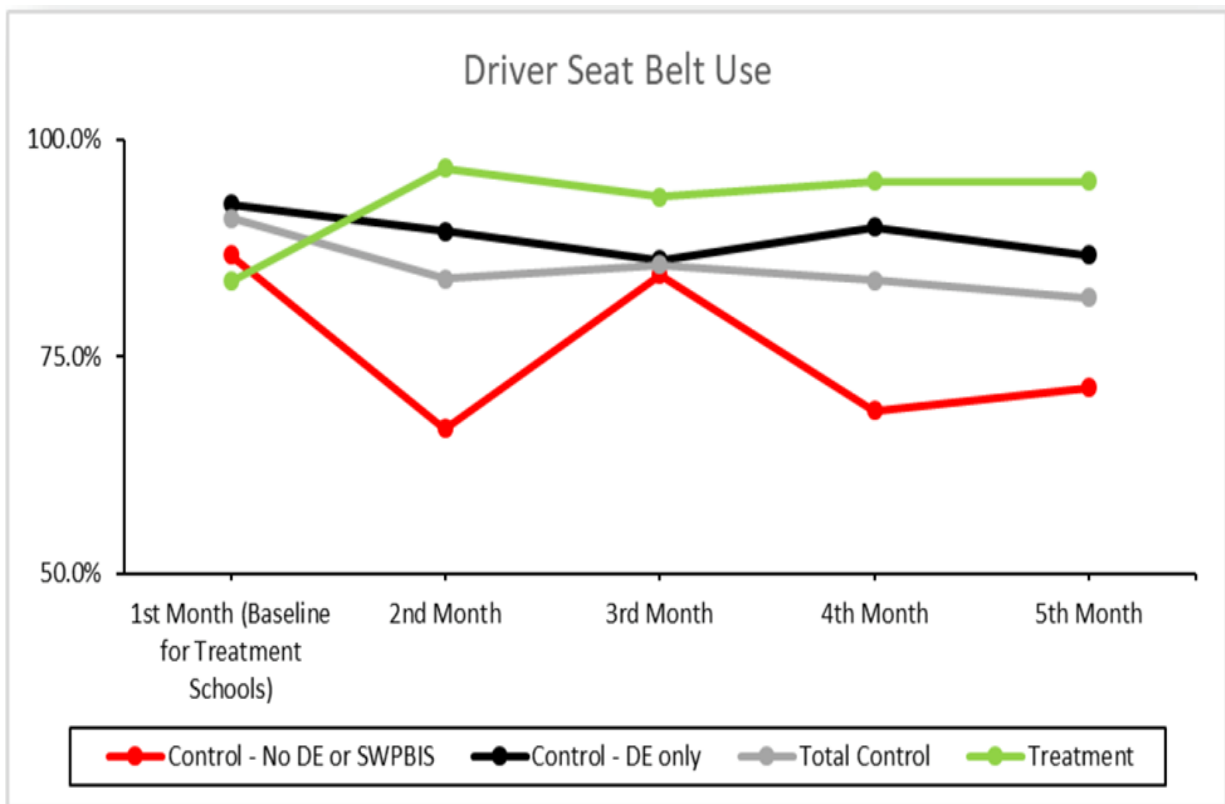


Figure 1: Percentage of Drivers Wearing Seatbelts; DE = Driver Education; SWPBIS = School-wide positive behavioral interventions and support



Cell Phone Use

Cell phone use while driving in treatment schools was consistently similar to or lower than rates in control schools. Across all months, 0.6% of drivers in the treatment schools were using cell phones, compared to 2.5% of drivers in the control schools.

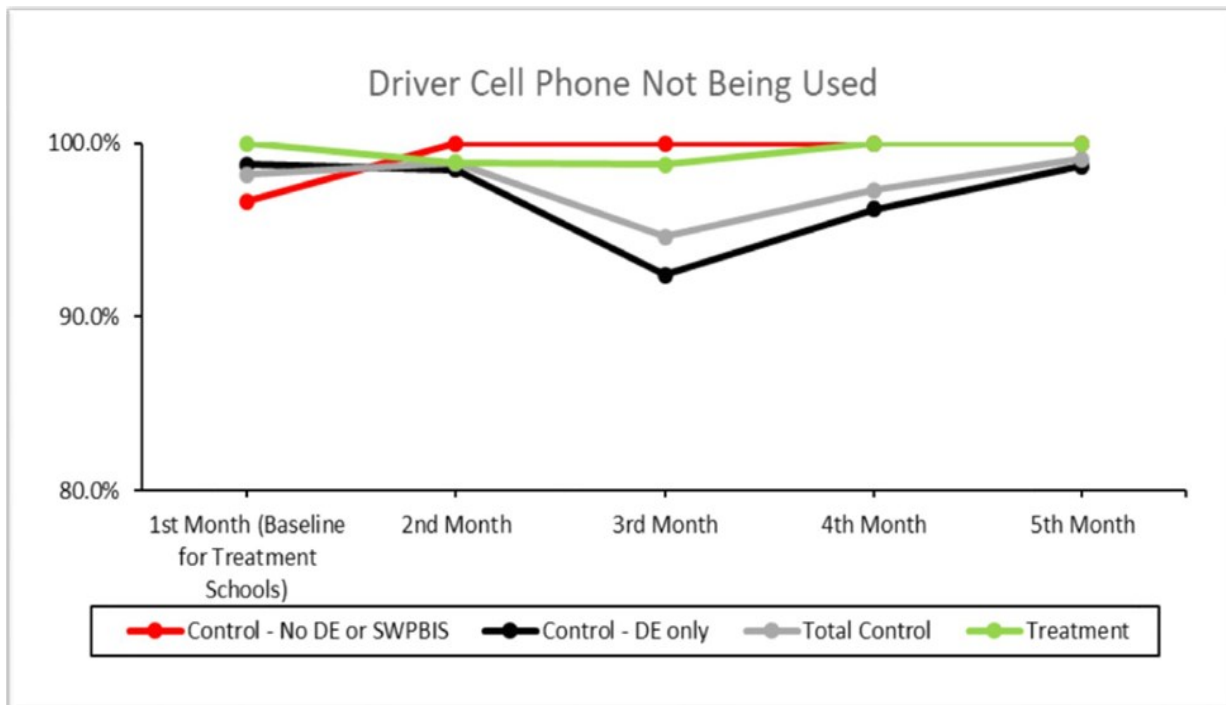


Figure 2: Percentage of Drivers NOT Using Cellphones; DE = Driver Education; SWPBIS = School-wide positive behavioral interventions and support

Conclusions

Preliminary data from this pilot study suggest that SWPBIS and an evidence-based driver education curriculum may be related to higher rates of seatbelt use and lower rates of cell phone use in the school parking lot. However, more data is necessary to provide stronger evidence for this claim. Further data collection with more schools, as well as statistical analyses will be done in the future to determine the strength of this relationship.

References

- Pennsylvania Department of Education. (2020). *Pennsylvania enhanced driver education program guide*. <https://www.education.pa.gov/Documents/Teachers-Administrators/Curriculum/Driver%20and%20Safety%20Education/Enhanced%20Program%20Guide%20Accessible%20Driver%20Program.pdf>
- Sugai, G., & Horner, R. (2009). Defining and describing schoolwide positive behavior support. In W. Sailor, G. Dunlap, G. Sugai, & R. Horner (Eds.), *Handbook of positive behavior support* (pp. 307-326). Springer Science + Business Media.

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Update: High School Implementation of SWPBIS in Pennsylvania

Timothy J. Runge, PhD, NCSP, BCBA

Each summer, schools involved in the Pennsylvania Positive Behavior Support (PAPBS) Network submit data to the Pennsylvania Department of Education, Bureau of Special Education regarding implementation of School-Wide Positive Behavioral Interventions and Supports (SWPBIS). These data are then analyzed to provide an overview of SWPBIS implementation and outcomes on key school- and student-level outcomes of interest. Results of those analyzes are summarized in annual executive summaries and posted on the PAPBS.org website.

Of note to the work that we have been doing over the past 2+ years is an account of SWPBIS implementation in high schools. This is of particular interest given the novel approach to blending an evidence-based driver education curriculum with SWPBIS to explicitly teach and then reinforce safe driving behaviors, specifically seatbelt use and refraining from using a cell phone while driving. We reviewed this work and offered a summary of data regarding the effects of blending an evidence-based driver education with SWPBIS in previous newsletters.

The current update is intended to provide a summary of the number of high schools fully implementing SWPBIS at the universal level (i.e., tier 1) and those implementing SWPBIS across universal and advanced tiers (i.e., tiers 1, 2, and 3). We also provide a summary of the number of high schools that are not yet implementing SWPBIS but are being trained and/or developing the infrastructure to implement in the coming academic years. The following data are from spring 2020, the most current data available for analysis.

Table 1

SWPBIS Implementation Status of High Schools in Spring 2020

	Not Implementing	Tier 1 SWPBIS	Tiers 1 & 2 SWPBIS	Tiers 1, 2, and 3 SWPBIS
High Schools	58	22	3	2
Junior/Senior High Schools	18	14	1	2
K-12 Schools	6	6	0	0
TOTAL	82	42	4	4

High schools are those with grades 9-12; junior/senior high schools are those with grades 7-12; schools implementing advanced tiers of SWPBIS are only counted once.

These data are noteworthy for a number of reasons. First, 42 schools achieved full implementation of tier 1 SWPBIS in spring 2020. Second, an additional four schools were implementing tier 1 and 2 SWPBIS with four more schools implementing all three tiers of SWPBIS. These important achievements provide models for other high schools to aspire. Third, 82 additional schools are being trained and are thus fertile ground for tier 1 SWPBIS to be implemented soon. Finally, and most significantly, these schools achieved and verified implementation of SWPBIS in the spring 2020 – right at the time the COVID-19 pandemic closed schools. These data indicate that despite unprecedented concerns about global health and pivoting to completely on-line learning in spring 2020, a number of high schools were committed to implementing SWPBIS. Congratulations to these schools, and we look forward to continued expansion of SWPBIS in Pennsylvania's high schools.

STOP-THINK-GO





Decision Making Process

Be Ready, Be Safe, Be Responsible

NOVICE DRIVER STATEWIDE PROGRAM RESOURCE TRAINING

CTSP Personnel Training
Using the Materials provided by the NDSP Grant

- Perceptual Driving Program
- Mentor/ Parent Driver Resources
- Stop Think and Go Decision Making


Be Ready, Be Safe, Be Responsible

STOP-THINK-GO



"A Matter of Driver & Traffic Safety"



Decision Making Process

What?- Module II of the PA Enhanced Driver Education Program Guide*

- A classroom program, should be taught as one of the first units. *
- The students learn a decision-making process and apply it throughout the curriculum.
- It will usually take three or four classes to teach this process. *
- Important that the teacher carefully study all the information for this unit, it is critical to thoroughly understand it when teaching it to the students. *
 - this is a process that can be selectively applied throughout the curriculum. *
 - All of the information is available for the teacher to develop the lesson plans for this phase of instruction. *
 - Slides one through 55 are for the teachers to read and understand before attempting to use the subsequent learning activities. *

*PA Enhanced Driver Education Program Guide

This is the STOP-THINK & GO Decision-Making Module. This is a classroom program, and it should be taught as one of the first units. The students will be learning a decision-making process and then be expected to apply it throughout the curriculum. It will usually take three or four classes to teach this process. It is important that the teacher carefully study all of the information for this unit, because it is critical to thoroughly understand it when teaching it to the students. Remember, this is a process that can be selectively applied throughout the curriculum. All of the information is available for the teacher to develop the lesson plans for this phase of instruction. Pages one through 34 are for the teachers to read and understand before attempting to use the learning activities starting on page 34.

Why ? —"Driving is much more than a mechanical process of steering and braking. Many young, inexperienced drivers view it as a purely manual activity requiring little more than good hand-eye coordination and fast reflexes."

- "Driver education students who fail to recognize and understand the risk factors that impact driving are also powerless to manage these same risk."
- "The primary causes for high injury and mortality rates are driving inexperience and driver inability to manage risk."
- "Few vehicle crashes occur during on-the-road training because driver education teachers, sitting in the passenger seat, have used their risk management skills to keep their students safe."
- "Eventually, these students will be on their own and will no longer be able to rely on the good judgment of their instructors...Driver education teachers can provide their students with the ability to become effective risk managers."

*PA Enhanced Driver Education Program Guide

Driving is much more than a mechanical process of steering and braking. Many young, inexperienced drivers view it as a purely manual activity requiring little more than good hand-eye coordination and fast reflexes. Driver education students who fail to recognize and understand the risk factors that impact driving are also powerless to manage these same risk factors.

The ultimate goal of driver education programs must be to teach young people to be safe and responsible drivers. This goal can be achieved through information dissemination, skill training, and decision-making. Driver education programs have been successful in teaching students what they need to know about safe driving. These same programs have likewise been successful in teaching students safe and responsible motor vehicle handling skills. Still, the incidence of unintentional injury and death experienced by young drivers remains very high. The primary causes for high injury and mortality rates are driving inexperience and driver inability to manage risk.

Few vehicle crashes occur during on-the-road training because driver education teachers, sitting in the passenger seat, have used their risk management skills to keep their students safe. However, this will not always be the case. Eventually, these students will be on their own and will no longer be able to rely on the good judgment of their instructors. While this will be so, driver education instructors can provide their students with something other than their presence that will help to keep them safe. Driver education teachers can provide their students with the ability to become effective risk managers.



Decision Making Process

- How?-** "...with an easy to use and effective three step decision-making model that is every bit as critical to driver safety as wearing seatbelts."
- "Using the STOP -THINK & GO Decision-Making Process, students will learn how to take control of their driving options rather than be controlled by their environment."
- "No longer will they be forced to react to driving situations when they could decide."
- "students ...can rely on their own good judgment" *

*PA Enhanced Driver Education Program Guide

...an easy to use and effective three step decision-making model that is every bit as critical to driver safety as wearing seatbelts. Using the STOP -THINK & GO Decision-Making Process, your students will learn how to take control of their driving options rather than be controlled by their environment. No longer will they be forced to react to driving situations when they could decide. Give your students something on which they can rely in your absence, their own good judgment.

Available on IUP Institute for Regional Health and Safety/Center for Transportation web page and also through the PDE Driver and Safety Education page

The screenshot shows a website interface with several key sections:

- STOP, Think and Go**: A prominent red button with a white arrow pointing right.
- NOVICE STATE-WIDE DRIVER PROGRAM**: A section with a red header and white text, describing a PennDOT Highway Safety Grant program.
- Perceptual Driving Program Curriculum**: A section with a white header and blue text.
- Working With Your Teen Driver Mentor/Parent Driver Program**: A section with a white header and blue text.
- Stop, Think and Go**: A section with a white header and blue text.

 Arrows from the text in the adjacent block point to these specific sections on the website.



Habits to Improve Perception

- Use a **SYSTEMATIC SEARCH PATTERN**.
- 1. Traffic Controls
- 2. Highway Conditions
- 3. Other Users

The Decision-Making Worksheets in the Activity Workbook can also be used in the *Perceptual Curriculum* to help students identify the risk factors in the scenarios of perceptual curriculum slides and videos.

IDENTIFY SIGNS, SIGNALS, AND LANE MARKINGS

SIGNS

WARNING SIGNS

- Crossings
- Intersections
- Curves
- Changes in Width
- Traffic Direction
- Road Conditions

VEHICLE CONDITIONS

- Tires, Body, Other

They can also be applied to some of the slides, lessons and, objectives in the Parent/Mentor Program, such as:

- Pre-entry, Entry, and Pre-Drive
- Risk and Decisions in Driving Environments

PRE-ENTRY CHECKS

CHECK AROUND THE OUTSIDE OF THE VEHICLE FOR:

Awareness of: Weather and road conditions

Activities in the driving location

The Decision-Making Worksheets in the Activity Workbook can also be used in the *Perceptual Curriculum* to help students identify the risk factors in the scenarios of perceptual curriculum slides and videos.

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CHARACTERISTICS OF RURAL ROADS

They can also be applied to some of the slides, lessons and, objectives in the Parent/Mentor Program, such as:

- Pre-entry, Entry, and Pre-Drive
- Risk and Decisions in Driving Environments

URBAN SHOPPING AND BUSINESS DISTRICT ENVIRONMENTS

Be Ready. Be Safe. Be Responsible.

- Making correct decisions based on:
- Perceiving driving hazards (anything that can cause harm)
 - Assessing the risk (chance of harm by the hazard)
 - Recognizing potential severity of harm
 - Processing all to the best choice to avoid or reduce the danger of that hazard.
 - being proactive not reactive
 - evade, avoid by deciding to:
 - change position/direction
 - adjust speed

RESIDENTIAL STREETS

CHARACTERISTICS OF RURAL...

Be Ready. Be Safe. Be Responsible.

- Making correct decisions based on :
- Perceiving driving hazards (anything that can cause harm).
 Assessing the risk (chance of harm by the hazard)
 Recognizing the potential severity of harm
 Processing all to the best choice to avoid or reduce the danger of that hazard.
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They can also be applied to some of the slides, lessons and, objectives in the Parent/Mentor Program, such as:

- Pre-entry, Entry, and Pre-Drive
- Risk and Decisions in Driving Environments

Novice Driver Statewide Program:
Perceptual Driving, Decision Making, P.B.I.S.

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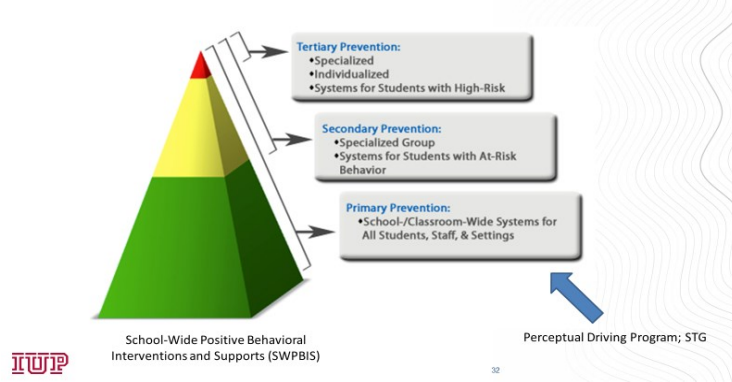
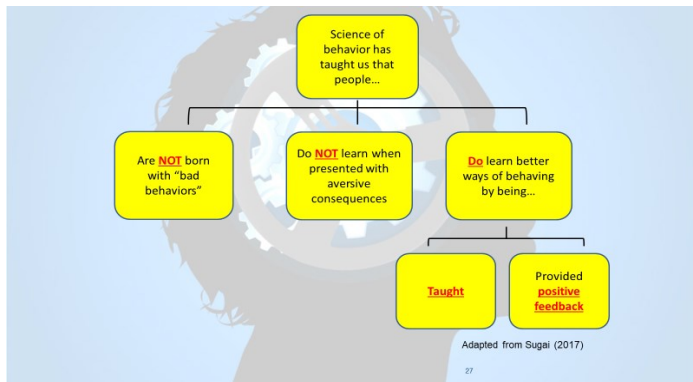
pennsylvania
 DEPARTMENT OF TRANSPORTATION

IIUP
 Institute for
 Road Health & Safety

Why Study Driver Education Programs

- Need is there for empirical study
- NHTSA and PennDOT want to evaluate Driver Education and behavioral outcomes (e.g., distracted driving; seatbelt use)
- Community involvement and communication with Community Traffic Safety Project (CTSP) Liaisons

IIUP



Distractions and Perception

CELL PHONE DISTRACTED DRIVING

What is the Ultimate Goal of Driving?

To be able to drive from point A to point B-

- **Safely**
- **Efficiently**

HOW?

Distractions and Perception

The Ultimate Goal

HOW?

- **Driving Skills and Habits can be learned and improved upon.**
- **So can Attitudes and Behaviors.**

BE READY, BE SAFE, BE RESPONSIBLE

The Ultimate Goal

What is the ultimate goal of driving?

- The “ultimate goal” of driving is to be able to travel to a destination safely and efficiently.
- Distracted driving affects a great deal of the task of driving and is a major obstacle to achieving this goal.
- How can you increase your chances of achieving this ultimate goal regularly?

Distractions and Perception

The Ultimate Goal

HOW?

Decision Making Process:

- **The Choice to be AWARE of:**
 - **Right and Wrong Behavior**
 - **Correct and Incorrect Decisions**

BE READY, BE SAFE, BE RESPONSIBLE

What can you do at home?

- Praise students for wearing seatbelt
- Praise students for not using cell phone while driving
- Encourage students to use some of the alternative strategies suggests above such as:
 - Designating a passenger to handle phone
 - Speaking up – Remind friends not to text and drive/offer to use phone for them as a passenger

Decision Making Process

We make conscious and unconscious decisions. Everything involved in the driving task involves making decisions. In the decision making process, you have the opportunity to consciously choose according to what you perceive and know. To help achieve the “ultimate goal” the choice is to be aware of the correct behaviors that will help you to avoid incorrect decisions.

- Praise students for wearing a seatbelt
- Praise students for not using a cell phone while driving
- Encourage students to use some of the alternative strategies suggests above such as:
 - Designating a passenger to handle phone
 - Speaking up – Remind friends not to text and drive/offer to use the phone for them as a passenger