THE Keystone CTSP Newsletter

SWPBIS - Evidence Based, Data Driven

PERCEPTUAL DRIVING CURRICULUM

SWPBIS

School Wide Positive Behavioral Interventions and Supports
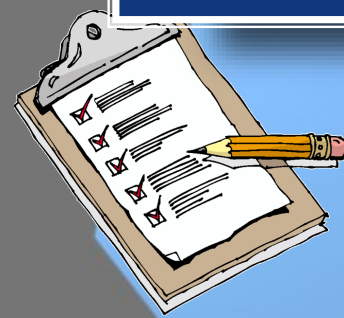
Applying SWPBIS to Driver Education

Perceptual Driving: Updates and Connections to PBIS

Be Ready, Be Safe, Be Responsible

SURVEYS AND DATA COLLECTION

Contents

THE Keystone CTSP

Inside Issue #2

Welcome back! Thanks to all for the positive responses to the first issue and to the presentation of this project at the fall conference at Shippensburg.

This issue focuses on the SWPBIS pieces of the project with articles by our behavior education team of Dr. Tim Runge and Kathleen Ammerman. Included also are pieces concerning other requirements in our project: the data collection tasks and the various surveys being conducted. Featured is a key component of the project, the Perceptual Driving Program. Included is an account of its history, applications, updates, and the tie- in with SWPBIS. A visual history of the development from its origin to present form rounds out the issue with the intent on giving a better understanding of the tasks involved in our work.

Quick Mentions:

- Thanks to everyone that took part in the CTSP survey that was distributed. Understandably, there may have been a few tech glitches, but the insights from your replies will assist in understanding what occurs in the various programs.

- Visit & join the Facebook group IRHS /Keystone CTSP/ PA Driver Education Group.

- We will be looking for contributions for future issues, your input is appreciated.

LINKS

CHOP/CIRP

Working Memory Development and Teen Crashes

EndDD.org

PA Dept. of Education

PDE: Enhanced Driver Education Program Guide

SWPBIS - Evidence Based, Data Driven

School-wide Positive Behavioral Interventions and Supports (SWPBIS) is an evidence-based, data-driven service provision framework that utilizes a multi-tiered system of supports to address the behavioral and social needs of student enrolled in K-12 schools. Grounded in learning and behavior theory, this framework emphasizes explicit instruction in expected behaviors, across multiple school setting and situations. This program also focuses on using positive behavioral methods to reinforce appropriate behavior as opposed to using aversive (e.g. punishment) as a first step in school-wide behavior change. The advanced tiers of SWPBIS include additional assessments, supports, and services provided to students who do not favorably respond to the universal instruction and reinforcement (Sugai & Horner, 2009)

In Pennsylvania alone, 394 schools are utilizing this approach to behavior management and intervention, as of Spring 2018. Implementation begins when schools adopt Tier 1 universal supports that teach and reinforce appropriate behaviors to all students in the school building. After successful implementation of Tier 1 programming, school personnel are then trained in more intensive supports to provide to students for whom universal Tier 1 supports do not fully address their social and behavioral needs. For the purposes of our project, we are recruiting high schools who are fully implementing Tier 1 SWPBIS (treatment schools) and high schools implementing no aspects of SWPBIS (control schools). In order for a school to be eligible as a treatment school, they submit data through their PBS facilitator located at the Intermedi-

SWPBIS - Evidence Based, Data Driven (cont.)

ate Unit in order to document full Tier 1 implementation.

Currently, 292 schools in Pennsylvania have confirmed implementation of Tier 1 SWPBIS for 1-2 years, 158 have been implementing for 3-5 years, and impressively, 74 have been implementing Tier 1 SWPBIS for six or more years (Runge et al., 2018). As of Spring 2018, 42 high schools have provided data to confirm full implementation of Tier 1 SWPBIS. It is from this pool of high schools that sites can be selected for participation in of our project.

Kathleen Ammerman, M.Ed.
Assistant Coordinator SWPBIS Novice Driver Statewide Program

References

Sugai, G., & Horner, R. (2009). Defining and describing school-wide positive behavior support. In W, Sailor, G. Dunlap, G. Sugai , & R. Horner (Eds.) *Handbook of positive behavior support: Issues in clinical child psychology* (pp. 307-326). Springer, Boston, MA

Runge, T. J., Staszkiewicz, M.J., Hulsebos, K.L., Bardo, A.E., Tuggy, R., Ammerman, K.

(2018). *The Pennsylvania Positive Behavior Support Network's Implementation of School-Wide Positive Behavioral Interventions and Supports 2006-2018: 10th Annual Executive Summary.*

Online Resources
www.papbs.org (Pennsylvania Positive Behavior Support Network)

www.pbis.org (Office of Special Education Program's Technical Assistance Center for Positive Behavioral Interventions & Supports)

Applying SWPBIS to Driver Education

An adaptation of SWPBIS to driver education would utilize the same tiered levels of assessment, instruction / intervention, and reinforcement based on students' need. All eligible students (those of driving age) would be provided direct, explicit instruction on safe driving, including the use of seat belts and avoiding distractions (e.g., cell phones). Pre- and post-test data would be used to evaluate the extent to which students learned safe driving techniques from the instruction. Additionally, assessments of students' actual driving behavior would be randomly observed in occasional morning and afternoon safety checks. The driver education instructor (or designee) would watch students entering / leaving the student parking lot and record data regarding the proportion of students exhibiting safe driving behaviors (e.g., wearing seat belts; refraining from texting). Students observed exhibiting these safe driving behaviors would also be intermittently reinforced with the same token used in the traditional SWPBIS model implemented by that school. The analysis of pre / post test data, proportion of students observed engaging in safe driving during the random observations, and number of tokens distributed for safe driving behavior would be used to evaluate efficacy of the universal SWPBIS application to driver education.

Students for whom the preventative, universal driver education and observation of driving behavior during random safety checks were an inadequate amount of instruction and intervention would be afforded additional, strategic interventions and heavier schedules of reinforcement. For example, additional instruction would be provided to these students with increased reinforcement of safe driving behavior.

The purpose of these more strategic and targeted interventions would be to reduce the heightened risk of unsafe driving these students already display.

In sum, the adaptation of an evidence-based whole-school approach to positive, prosocial behaviors (i.e., SWPBIS) to a unique population (high school-age drivers), while not empirically tested, holds great promise. The core characteristics of SWPBIS - an evidence-based set of practices - are simply adapted to a particular context (i.e., driver education) and population (i.e., high school students). It stands to reason that the same characteristics of SWPBIS that facilitate its efficacy at reducing non-academic barriers to learning would also be effective at increasing safe driving behavior.

Timothy Runge, Ph.D.
Coordinator SWPBIS,
Novice Driver Statewide Program

SURVEYS

The NDSP project contains objectives to conduct surveys of several target groups specific to the grant.

The three "landscape" surveys include the following groups:

Driver Ed Instructors - The first survey performed was taken from a population of over 300 public school driver education instructors. It was initiated in July 2019. To give them ample opportunity to reply during the summer break, it ran until the end of August. There were 134 responses to it, a 42 % rate. The target rate was 20%, a national average ranges a little over 5%.

One purpose of this survey was to gain demographic information on the education and experience level of public school driver education teachers, and to gain insights regarding the scope of driver ed courses and curriculums used.

Attention is given to the amount of time teaching restraint use and distracted driving. Also of interest were end-of skills testing and involvement with their district CTSP offices.

CTSP - Survey number two was recently completed, and involved the CTSP offices. The objective of this was to gain insight on the audiences served, especially with public schools/driver ed programs, and parents/guardians. Other data collected was on programs that are used, the resources utilized, and methods of evaluating programs and presentations and their relative success.

Of 20 invitees, 19 replied. Of those, 15 completed the survey, four did not. This data is now being analyzed and will be reported on at a later time.

Driver Ed Students - The third survey is to be a voluntary, blind survey of students after completing driver education course work to gauge their impressions toward the instruction they received.

Feedback and Comments

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DATA COLLECTION

With the initial phase of driver observations beginning in September 2019, data was collected for the following driving behaviors of students; driver cell phone use and seatbelt use of all occupants.

Four schools were contacted to take part in the study and approved the observations of these student driver behaviors. Observations took place on school properties corresponding to either dismissal or arrival times of the students. Sample subjects are identified in several ways: by focusing attention to the dedicated student parking lots on campuses, and/or by identifying school-issued student parking tags on the vehicles. Grant team personnel gather data in pairs or individually. When in pairs, one tallies driver behaviors while the other counts passenger seat belt use. The individual observer collects the same information, usually in smaller parking lots or sample groups. Baseline (pre-treatment) data is collected before the introduction of the new Perceptual Program in the driver education classes of each school. Post-treatment data is designated as after the point of introduction of the curriculum additions. This is determined through fidelity checks of lesson application with participating instructors. The breakdown of the four schools is as follows: two schools were designated "Treatment" schools. Known as TS1 and TS2, these schools have approved driver education programs and implement SWPBIS to the required fidelity. School CW1 is a control school that offers driver education but doesn't use SWPBIS. A school designated as TC, (true control) does not offer driver ed, nor utilize SWPBIS. Benchmarks: baseline comparisons stated in grant proposal for effectiveness are established as at or above the statewide average of 85% for seatbelt use. Cell phone use is aimed for a 10% reduction from pre-implementation levels.

Perceptual Driving Program : Be Ready, Be Safe, Be Responsible

History, Updates and Relation to PBIS

The PA Enhanced Driver Education Program was adopted in 2000 by the Department of Education. The result of a NHTSA/PennDOT grant, it was developed by the IUP Highway Safety Center (now Institute for Rural Health and Safety). Comprised of five modules, it has undergone several general updates to the manual, the most recent in 2018 by School Safety Education Advisor, John Kashatus.

Besides being an important segment of the Commonwealth Driver Education curriculum, Perceptual Driving and the hands-on companion the Driver Proficiency Program, have been use for training of EMS drivers, corporate safety and community organizations as well as serving as the mandated training program for municipal police forces in Pennsylvania.

One goal of the Novice Driver Statewide Program grant was to revamp the design and presentation of the Perceptual Driving Program. This was done with the addition of animated skill sequences, new videos, photos and content as well as corresponding instructor and student manuals. Also, two new sessions were produced that focused a main aspect of the grant: preventing distracted driving and increasing seat belt use. The enhanced materials were distributed for use by the driver education instructors of the schools involved in our research. They will eventually be made available to the various LEAs in the state as well as other previously mentioned courses.

"The Perceptual Driving Program establishes a foundation for selective seeing, evaluating, and responding to selective traffic scenes. Once this process is learned, the beginning driver will then be able to apply it to various traffic environments and situations." (PA EDEPG p.105) "The program is designed to teach drivers selective visual skills for greater car control and seeing. Controlling the speed and position of the vehicle and communicating the driver's intentions to other users is dependent upon the driver's perceptual skills. Complex and constantly changing driving environments require a constant awareness on the part of the driver; and many times, a driver is required to make critical decisions in a very limited time span. Through this, drivers are enabled to practice the decision-making process in the classroom, the driver education vehicle, and in the parent's car; so that when they are on their own, they will hopefully make the correct decisions." (ibid p.105)

There is enough flexibility in the curriculum to allow instructors to extend the scope of the material with class activities with outside resources, other information or added videos and pictures to enhance the perceptual exercises.

One facet of the PBIS system is the concept of teaching specified behaviors and positively reinforcing observed performance of stated behaviors. Often, simple prompts are used as a core behavior model. The "motto" for the new lesson sessions is "Be Ready, Be Safe, Be Responsible". Students are introduced to the concept of the "Ultimate Goal" of driving as "the safe and efficient movement from point A to point B", with the ultimate responsibility of the driver to protect self and others by developing skills, attitudes and habits needed to do so.

Students are given examples of distraction types and potential outcomes, then presented with possible solutions based on taking conscious actions to avoid these risks. The Occupant Protection segment imitates the distracted portion with descriptions of injury types followed by driver choices to achieve the duty to "Be Ready, Be Safe, Be Responsible". When the student moves into the in-car portion of driver education, the particular task of disabling the cell phone should be added to the pre-driving procedure to make that part of the driving routine. This is a " Be Ready" habit that should be taught to the student the same as mirror and seat adjustments, buckling seatbelts and most other driving skills. The intent is to make the decision to deactivate phone a standard habit the same as the other skills and habits.

With the Tier I implementation of SWPBIS, students who are observed performing the desired behavior of " Be Ready, Be Safe, Be Responsible", are noted and receive whatever reward token is used by the school or program. Evaluative observations can be on a random basis or a prearranged place or time. Those who are observed not achieving to these objectives, are the entered in a Tier II support level that can include, individualized activities or extra work or practice until achievement levels are reached.

With physical driving skills being taught, practiced and evaluated to their efficacy , so too can behavior and decision making habits become a part of the novice driver goal to "Be Ready, Be Safe, Be Responsible".

Distracted Driving and Cell Phones

BE READY, BE SAFE, BE RESPONSIBLE

Perceptual Driving: Through the Years (1993-Today)

Highway Safety Center
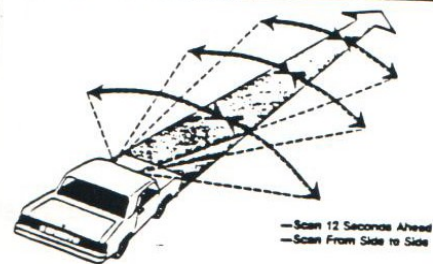
Perceptual Driving Program

Student Manual
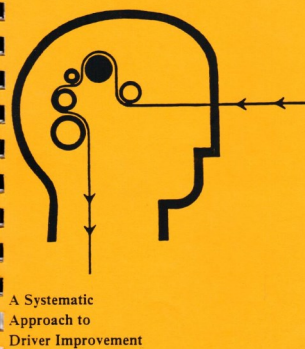
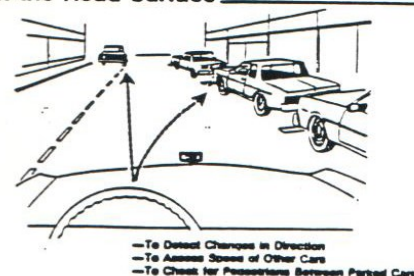A Systematic
Approach to
Driver Improvement

IUP

1993-ish

- Print form only.
- Presented via transparencies and notes.
- 300 + pages of instructions and content.
- Next version included photographic slides shown from carousel slide projector.

Scan the Scene Ahead
—Scan 12 Seconds Ahead
—Scan From Side to Side

Scan the Road Surface
—To Detect Changes in Direction
—To Assess Speed of Other Cars
—To Check for Pedestrians Between Parked Cars

GUIDE SIGNS
Shapes — Colors — Symbols
Destination and Mileage
Recreation Areas
Roadside Services
Route Markers

Eye Habits for Vehicle Control
•• Picture Path of Travel
•• Look Down Middle
•• Look Far Ahead

WARNING SIGNS
Colors
Shapes
Symbols
Crossings
Intersections
Curves
Changes In Width
Traffic
Road Conditions
Read From The Bottom Up
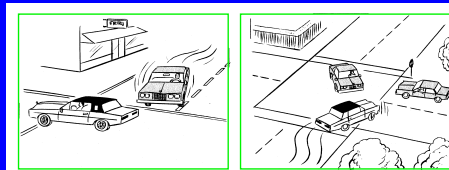
Perceptual Driving Program

Rationale

Masters G-A through G-D

1999-ish

- Intro of PowerPoint presentation.
- Formatted to 3.5" floppy disk.
- Used the illustrations and examples from 1993 original.

Identify Probable Errors

Lose control in skid   Swerves too quickly
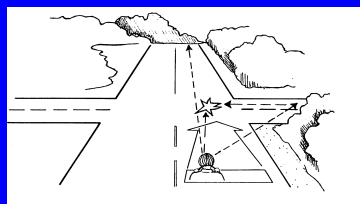Improper Vehicle Control Actions

Warning Signs
Colors
Shapes
Symbols

Crossings
Intersections
Curves
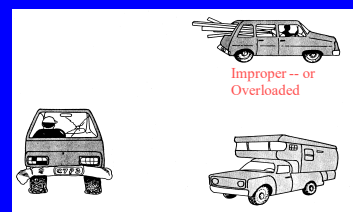Changes in Width
Traffic
Road Conditions
Read from Bottom Up

Less Sight Distance Ahead
Less View to Sides

• Present speed becomes unsafe for changes in sight distance or view to sides
• Stopping distance becomes greater than seeing distance

Vehicle Condition and Performance

Improper -- or Overloaded
Body Condition or Out-of-State License
High or Low Performance

Perceptual Driving: Through the Years-1993-Today

2009 –2018

- Advances in tech allowed insertion of videos and photos among other upgrades.

- Formatted to DVD. Several original illustrations still used.

- Early student and instructor manual were in print versions only. Some corresponding slides were later added.

Stated Reasons for Collision

- "I Didn't See Him"
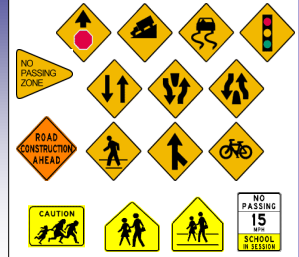- "I Didn't See Him In Time"
- "I Didn't Think He Would Do It"

Scan the Road Surface

- To Detect Changes in Direction
- To Assess Speed of Other Cars
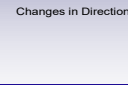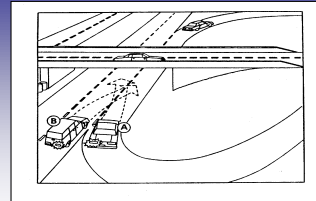- To Check for Pedestrians Between Parked Cars

Scan the Scene Ahead

- Search 20 to 30 Seconds Ahead
- Search from Side to Side

Scan Mirrors and Dash

- Check Inside and Outside Mirrors
- Check Dash Regularly

Warning Signs
Colors – Shapes - Symbols

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

Clues to Change in Vehicle Movement

Changes in Direction   Changes in Deceleration

Case of the Crossover

At a cloverleaf interchange, you are driving vehicle "A" getting ready to merge onto the freeway. Vehicle "B" is signaling and starting to slow down for an exit.

2019

- Presentation re-vamped to include new videos, photos, and active animation examples.

- Addition of content matter and digital student and instructor manuals that mirrored all slides and notes.

- Formatted in Power-Point and PDF form to flash drive.

The Perceptual Driving Program

Perception and Driving Strategies for Different Environments
Module III of the
Pennsylvania Enhanced Driver Education Program

IDENTIFY SIGNS, SIGNALS, AND LANE MARKINGS
SIGNALS
FLASHING LIGHTS:
These lights may be either red or yellow.

FLASHING RED LIGHT
- Same as a "STOP" sign.
- Come to a complete stop.
- Look and proceed only after the intersection is clear.

- A flashing yellow light means caution.
- Slow down, look and proceed carefully.

- Flashing yellow arrow – unprotected turn,
- turn with caution.
- yield to oncoming

IDENTIFY SIGNS, SIGNALS, AND LANE MARKINGS
SIGNS
WARNING SIGNS – UNIQUE SHAPES
PENTAGON
- SCHOOL ZONE
- SCHOOL CROSSINGS
RECTANGLE
EXIT 30 MPH
WORK ZONE
35 MPH
Speed Advisory
CURVE 45 MPH
ROAD WORK NEXT 5 MILES

Stated Reasons for Collisions
- "I Didn't See"
("I Wasn't Paying Attention")
- "I Didn't See In Time"
- "I Didn't Think He Would Do It"
("I Didn't Know What to Do")

Habits to Improve Perception
SEARCH THE ROAD SURFACE

Videos

Case of the Crossover

- At a cloverleaf interchange, you are driving vehicle "A" getting ready to merge onto the freeway. Vehicle "B" is signaling and starting to slow down for an exit.

Habits to Improve Perception
Scan the Scene Ahead

- Search 20 to 30 Seconds Ahead
- Search from Side to Side

Animat

Habits to Improve Perception
Scan the Scene Ahead
- Search 20 to 30 Seconds Ahead
- Search from Side to Side

Habits to Improve Perception
SCAN MIRRORS AND DASH

Time These Checks To:
- Critical situations and specific maneuvers
  - Slowing and stopping
  - Any lane change -Before and After
  - Approaching and exiting an intersection
  Also:
  - While stopped
  - More often in heavy traffic
  - Passing zones and multiple lane roadways
  Routine:
  Check dash when you see a speed limit sign or after you check the rear view mirror