



Welcome to PAX!

PAX = Peace • Productivity • Health • Happiness



# Our Vision

PAX = Peace • Productivity • Health • Happiness



- ❖ PAXIS Institute develops solutions that improve the peace, productivity, health, and happiness of people around the world. PAXIS Institute incorporates the power of science and prevention to develop simple, proven strategies that address the basis of many of society's multi-problems – human behavior.
- ❖ These proven, low-cost strategies can increase efficiency and job satisfaction, improve academic and social outcomes in children, reduce health disparities and risk probability for mental health and substance use disorders, and even prevent factors leading to violence and suicide.



# What are Evidence-based Kernels?

- ❖ Evidence-based Kernels make up the PAX Good Behavior Game and PAX Tools.
- ❖ They are fundamental units of behavioral influence.
- ❖ Evidence-based Kernels are
  - ❖ proven.
  - ❖ culturally responsive.
  - ❖ trauma-informed.



## Evidence-based Kernels: Fundamental Units of Behavioral Influence

Dennis D. Emsley · Anthony Biglan

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**Abstract** This paper describes evidence-based kernels, fundamental units of behavioral influence that appear to underlie effective prevention and treatment for children, adults, and families. A kernel is a behavior-influence procedure shown through experimental analysis to affect a specific behavior and that is indivisible in the sense that removing any of its components would render it inert. Existing evidence shows that a variety of kernels can influence behavior in context, and some evidence suggests that frequent use or sufficient use of some kernels may produce longer lasting behavioral shifts. The analysis of kernels could contribute to an empirically based theory of behavioral influence, augment existing prevention or treatment efforts, facilitate the dissemination of effective prevention and treatment practices, clarify the active ingredients in existing interventions, and contribute to efficiently developing interventions that are more effective. Kernels involve one or more of the following mechanisms of behavior influence: reinforcement, altering antecedents, changing verbal relational responding, or changing physiological states directly. The paper describes 52 of these kernels, and details practical, theoretical, and research implications, including calling for a national database of kernels that influence human behavior.

**Keywords** Evidence-based kernels · Public-health benefits · Prevention · Treatment

D. D. Emsley (✉)  
PAXIS Institute, P.O. 31205, Tucson, AZ 85731, USA  
e-mail: [dd@paxis.org](mailto:dd@paxis.org)

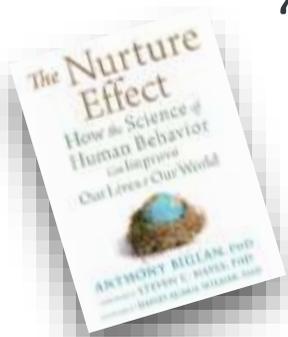
A. Biglan  
Oregon Research Institute, Eugene, OR, USA  
e-mail: [amy@ori.org](mailto:amy@ori.org)

This paper presents an analysis of fundamental units of behavioral influence that underlie effective prevention and treatment. We call these units *kernels*. They have two defining features. First, in experimental analysis, researchers have found them to have a reliable effect on one or more specific behaviors. Second, they are fundamental units of behavior influence in the sense that deleting any component of a kernel would render it inert. Understanding kernels could contribute to an empirically based theory of behavioral influence, facilitate dissemination of effective prevention and treatment practices, clarify the active ingredients in existing interventions, and contribute to developing interventions that are more efficient and effective. Subsequent sections of this paper expand on the two essential features of evidence-based kernels, as well as the origins of the idea and terminology.

The ultimate goals of treatment and prevention research are a reduction of the prevalence of the most common and costly problems of behavior and an increase in the prevalence of wellbeing. Current thinking about how to accomplish this assumes that we will identify empirically supported programs and, to a lesser extent, policies, and will disseminate them widely and effectively. Although substantial progress is occurring through this strategy, there are at least four limitations to it that point to the value of kernels as a complementary strategy.

First, it is difficult to implement a program's efficacy widely with fidelity or effectiveness. Ringwalt et al. (2003) surveyed a sample of 1,795 school staff members who were in charge of teaching substance-use prevention programs. Nearly two-thirds reported teaching content that meta-analyses showed was effective. However, only 17% used effective delivery and only 14% used both effective delivery and content. In a second study, Ringwalt et al. (2003) found that about one-fifth of teachers of substance-

# What are Nurturing Environments?



“Creating nurturing environments is fundamental to preventing most problems of human behavior and producing the kind of caring and productive people every society values.”

– Anthony Biglan, Ph.D., *The Nurture Effect*

**PAX makes environments more nurturing in the following ways:**



Evidence-based Kernels make up both



**pax** | Good  
Behavior  
Game

and



**pax tools**

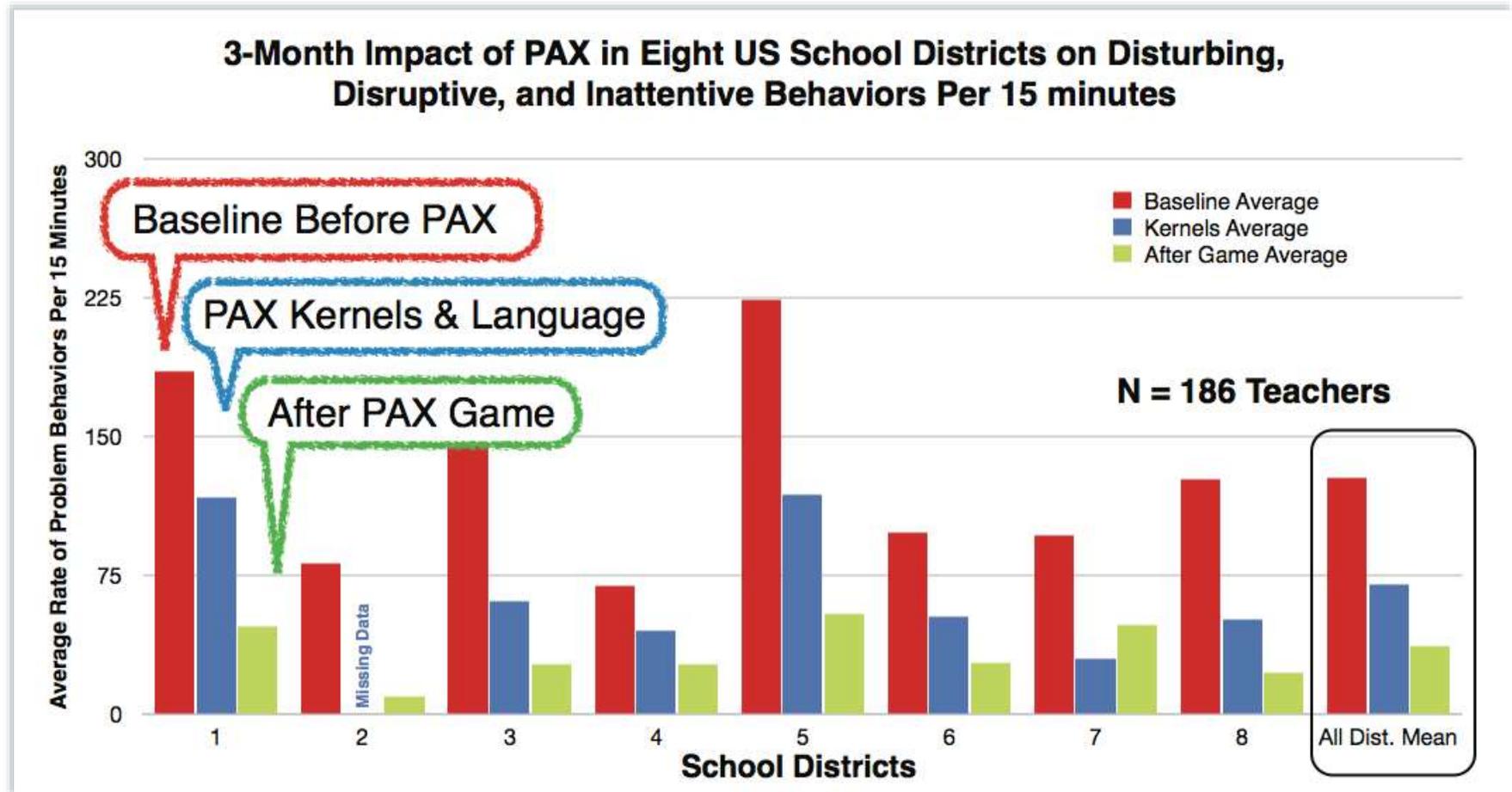


What does PAX do?



# PAX Reduces Problematic Behaviors

Disturbing, Disruptive, and Inattentive Behaviors decreased after implementing Kernels and decreased further after implementing the PAX Game.



# When teachers implement PAX GBG

For every 100 first graders who get the evidence-based strategies in PAX GBG, we can expect to see the following results when they reach age 21:

## About this data:

Two separate studies at Johns Hopkins University followed 1,500 children from first grade to adulthood.

Read more at [www.pubmed.gov](http://www.pubmed.gov)

## Number

## Outcome

9	fewer young people will need any form of special education services
6	more boys will graduate from high school.
7	more boys will enter university
9	more girls will graduate from high school
7	more girls will enter university (because of not being pregnant)
1	fewer young people commit major violent crimes or die from them
10	fewer young people will develop serious drug addictions
7	fewer young people will become regular smokers
4	fewer young people will develop serious alcohol addictions
5	fewer young women will contemplate suicide
7	fewer young men will attempt suicide



# What is pax tools?

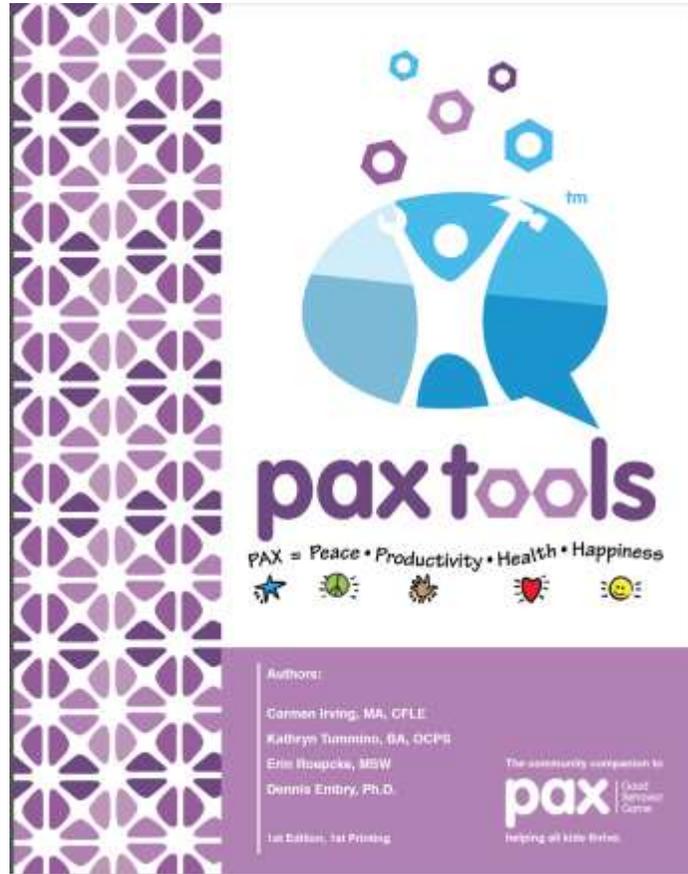
- ❖ A collection of evidence-based strategies to improve cooperation and self-regulation with children.
- ❖ Is trauma-informed.
- ❖ Creates nurturing environments.
- ❖ Supports **parents** and **caregivers**, and other **caring adults** who interact with children in settings outside of a classroom.



**WE BUILD  
GREAT KIDS!**

Carmen Irving, MA, CFLE; Kathryn Tummino, BA, OCPS;  
Erin Roepcke, MSW & Dennis Embry, Ph.D.

# How does PAX Tools work?



- ❖ Professionals attend 8 hours of training from the PAXIS Institute to learn to present PAX Tools Community Workshops.
- ❖ Caring adults attend a 2.5-hour PAX Tools Community Workshop in their community.
- ❖ Adults then implement nine evidence-based strategies during everyday interactions with young people.



# paxtools Training Model



PAXIS Trainer



*Trains*



PAX Tools  
Community  
Educator



*Presents*



Caring Adults



*Implements*



Children  
and  
Adolescents



# Who can use PAX Tools?

- ❖ Parents / Grandparents / Caregivers / Foster Parents
- ❖ Childcare Providers
- ❖ Preschool Staff
- ❖ After-School Staff
- ❖ Coaches
- ❖ Faith Based Staff / Volunteers
- ❖ Youth Workers

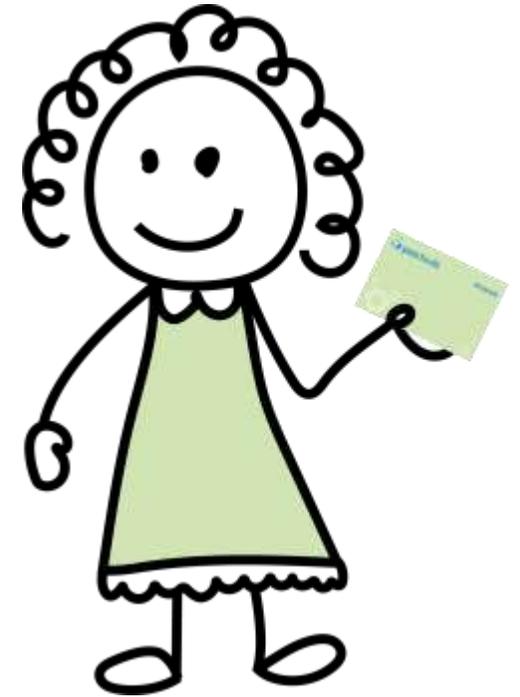


# Resources for Users of PAX Tools



# Who can become a PAX Tools Community Educator?

- ❖ Parent Educators
- ❖ Health Educators
- ❖ Prevention Educators
- ❖ Extension Educators
- ❖ Volunteer Coordinators
- ❖ Foster Care and Respite Providers
- ❖ Faith-Based Youth Workers/Volunteers



# What people are saying about PAX Tools

"I love that PAX Tools teaches the concept that behavior is a skill set that needs to be taught like academic skills."

"This training was great. I really liked how it gave the audience a chance to practice using PAX Tools with real-life challenges."

"I really appreciate that PAX Tools are so practical and easy to use!"

"I'm excited to use what I learned here today!"

"The whole PAX Tools program works by supporting us in having the kinds of relationships with our children that help them learn better and bring us – the adults – greater joy."



# What people are saying about PAX Tools

- ❖ **97%** of individuals who attended a PAX Tools Workshop **found it to be very helpful**
- ❖ **90%** of participants claimed PAX Tools strategies would be **very helpful to their practice**
- ❖ **100%** of respondents reported they **intended to implement PAX Tools**



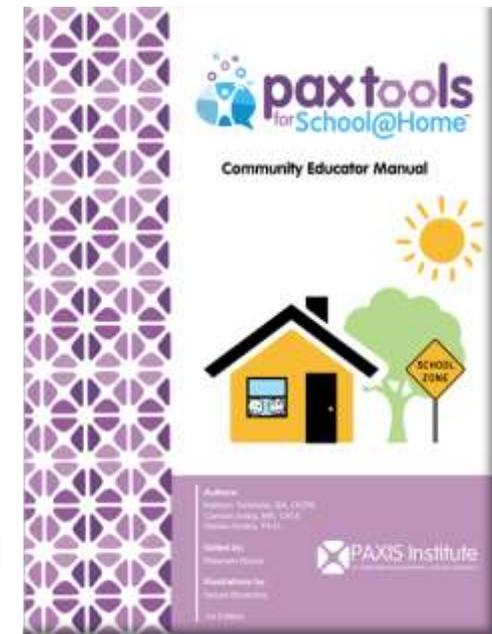
\* Data compiled from PAX Ohio Cures Evaluation Report from statewide PAX Implementation in Ohio, 2017-2019

# Additional PAX Tools Trainings





- ❖ Provides **parents and caregivers** with research-based strategies to increase their children's focus, motivation, stamina, and a number of other skills that specifically help children improve their study habits and outcomes when learning at home.
- ❖ This training will
  - ❖ Address behavioral challenges related to school at home.
  - ❖ Identify strategies to reduce conflict and improve performance.
  - ❖ Apply layering of PAX Tools to common problematic situations when doing schoolwork at home.
  - ❖ Make school at home more peaceful, productive, healthier, and happier for all.





# Training Model



PAXIS Trainer



*Trains*



PAX Tools  
Community  
Educator



*Presents*



Caring Adults



*Implements*



Children  
and  
Adolescents





- ❖ Provides research-based, trauma-informed behavioral health strategies for **youth-serving professionals**.
- ❖ Ensures and operationalizes a trauma-informed approach for agencies and individuals who work with youth.
- ❖ Includes strategies for **professionals** to use with youth in their practice or setting, and steps for **guiding caregivers** in utilizing selected strategies with children at home.



# Implementation Model



PAXIS Trainer



*Trains*



Youth-serving  
Professional



*Implements*



*Use with: Children  
and Adolescents!*



*Shares*



*Share with:  
Parents and Caregivers*



*Implements*

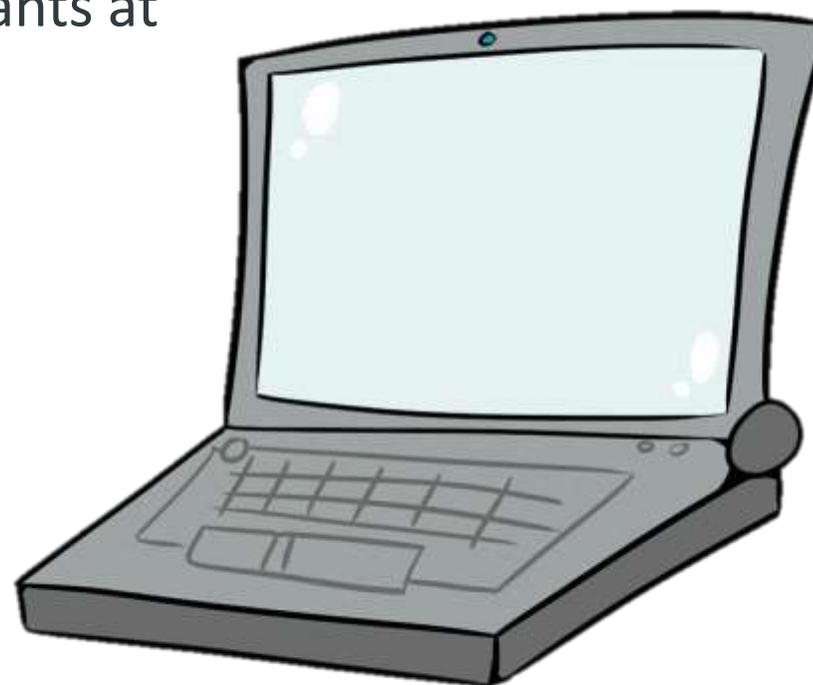


*Use with: Children  
and Adolescents!*



# PAXIS trainings are available virtually!

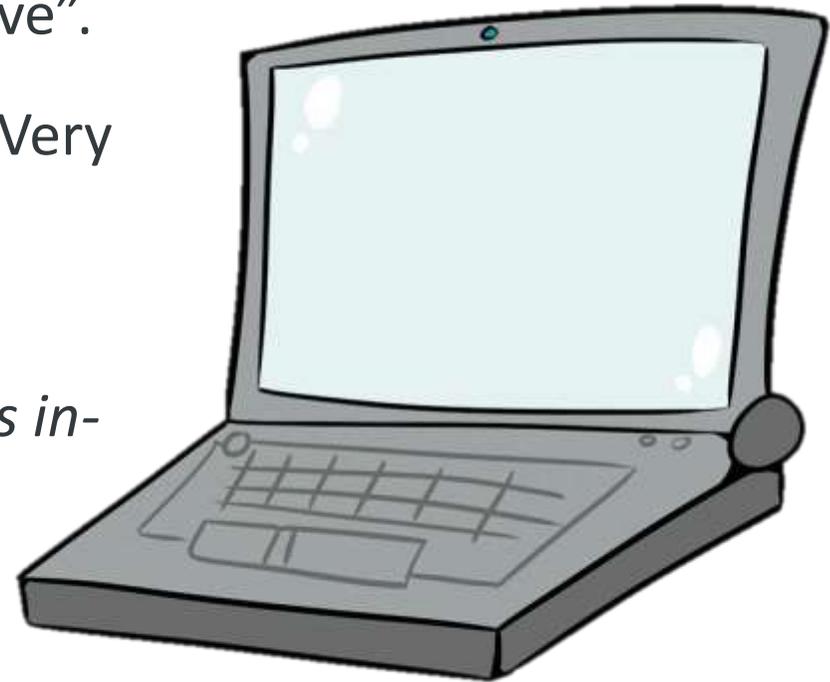
- ❖ **Blackboard Collaborate** provides for live synchronous training with participants at work or home.
- ❖ Multiple session options provide *flexibility* for limited professional development time.



# Virtual PAX trainings are remarkably effective!

- ❖ **97.9%** of users found their virtual training “Effective” or “Very Effective”.
- ❖ **91.6%** of users were “Clear” or “Very Clear” on how to implement PAX immediately after training.\*

*\*An increase from 84.5% from 2019’s in-person trainings.*



# Learn more about PAX!



❖ Visit [www.paxis.org](http://www.paxis.org)

❖ Watch videos on our YouTube channels:

- ❖ PAX Good Behavior Game
- ❖ PAX Tools

❖ Follow us on Facebook:

- ❖ @paxisinstitute
- ❖ @PAXGAME
- ❖ @PAXTools

For more information about PAX or our research base,  
email [info@paxis.org](mailto:info@paxis.org)

