

WRIGHT STATE  
UNIVERSITY

# Creating Nurturing Environments in Schools and Communities



[www.WrightOFER.com](http://www.WrightOFER.com)

Dr. Jason Fruth - @Fruth\_WSU - [jason.fruth@wright.edu](mailto:jason.fruth@wright.edu) - 513.849.1430

Visit: [GoodBehaviorGame.org](http://GoodBehaviorGame.org) today!

Dr. Jason Fruth, Wright State University



at Wright State University

## Jason Fruth: The Tootle trainer

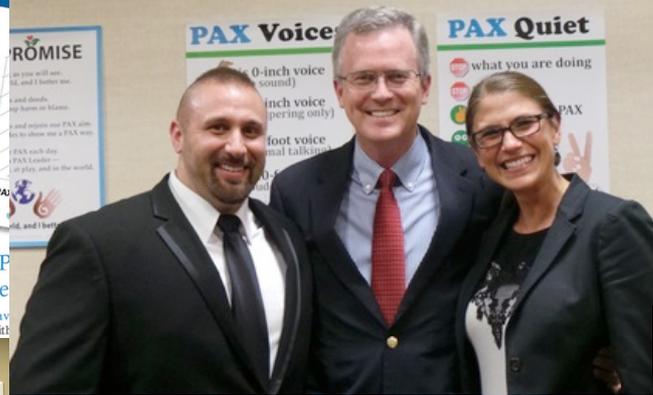
By Bob Tressler



The ONLY Accredited PAX... Training at Wright State University



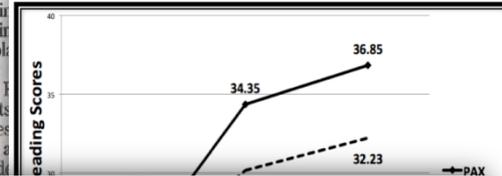
What does PAX do for future teaching strategies with



PAX Voice

PAX Quiet

thing and the more of,"  
 you get when those YouTube riers returning rise their fam-  
 the kid-  
 of in-  
 kpl-  
 ents-  
 tles-  
 of a d-



# Adaptation...



 Allowed homo sapiens to persist...

# Predatory Environments



Childhood Poverty

# Predatory Environments



Abuse



# Predatory Environments



**Problematic  
Behaviors Increase**

- When leadership is viewed as **WEAK**, youth become aggressive to compensate

# Predatory Environments



**Toxic Influences**  
**Increase**



- When leadership is viewed as **threatening**, youth become aggressive to balance the scales

# Predatory Environments



**No Reinforcement for  
Pro-Social Behavior**

- When children lack **belonging** to meaningful groups with positive goals, they create groups for protection

# Predatory Environments



**No Psychological  
Flexibility Learned**

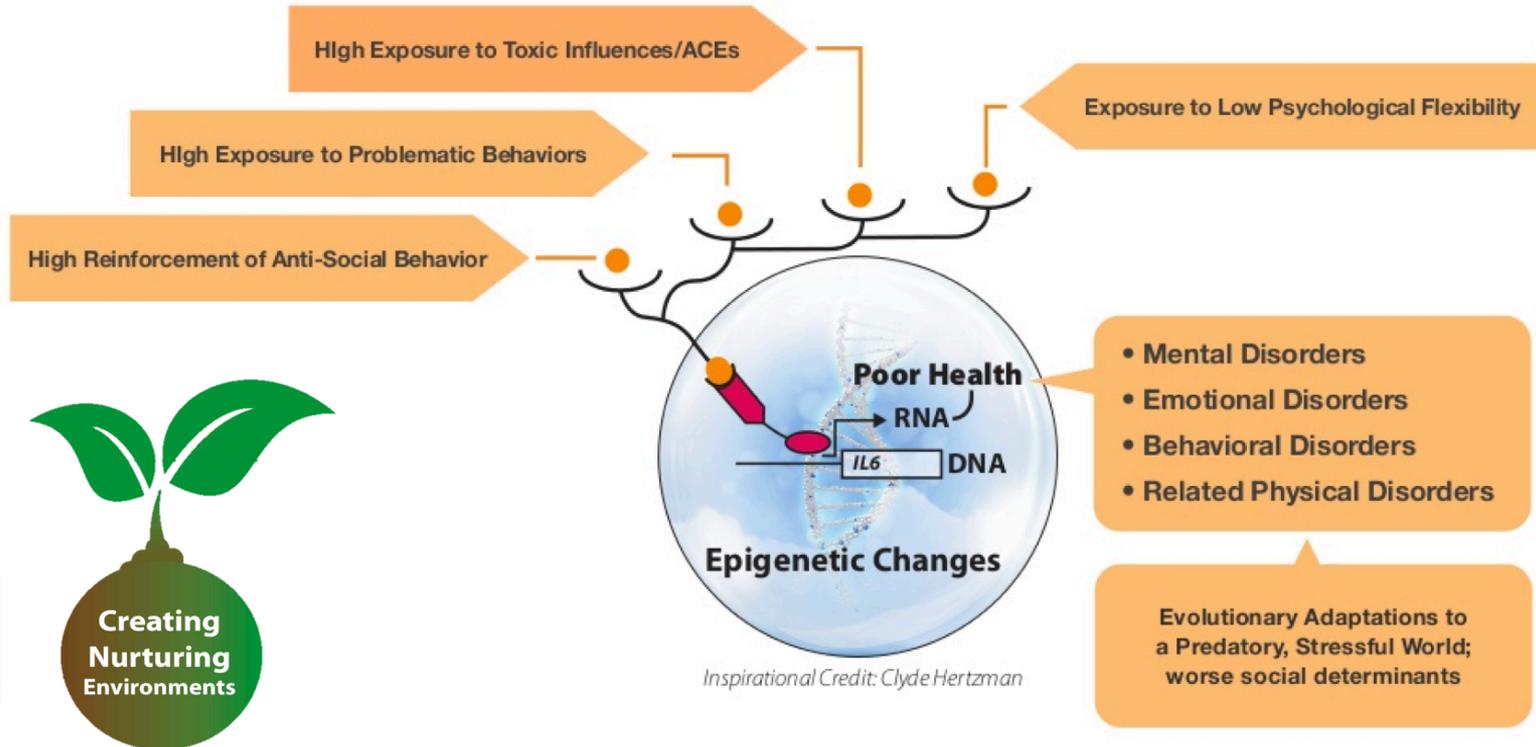


- Without self-run talent contests with established standards, youth increase aggression

# Predatory Environments



Common set of conditions producing these negative trends...



Inspirational Credit: Clyde Hertzman



# Reduce Toxic Influences



# Reduce Toxic Influences



🌱 **Protection from:** violence, bullying, adult conflict or physical emotional or sexual abuse

🌱 **Impact:** social development, IQ, depression, anxiety, aggression, even physical health

🌱 Programs with high victimization and punishment (retribution) policies **BECOME** toxic influences



# Limit Problematic Behavior



# Limit Problematic Behaviors



- 🌱 **Include social and physical limits:** bedtimes, diet, violence, drug use, sexual behavior
- 🌱 **Stated limits provide:** safety, comfort, and predictability in expectations
- 🌱 Inability to monitor behavior or applying harsh consequences increases problematic behaviors and toxic influences on others



# Reinforce Pro-Social Behavior



# Reinforce Pro-Social Behavior



- 🌱 **Identify:** pro-social, low-incidence behaviors necessary for society's interdependence
- 🌱 **Increase:** Helping others, taking pride in role, belonging to a community, developing altruistic goals
- 🌱 What may be “common sense” in one environment may not be necessary, taught, or useful in another

# Teach Psychological Flexibility



# Psychological Flexibility



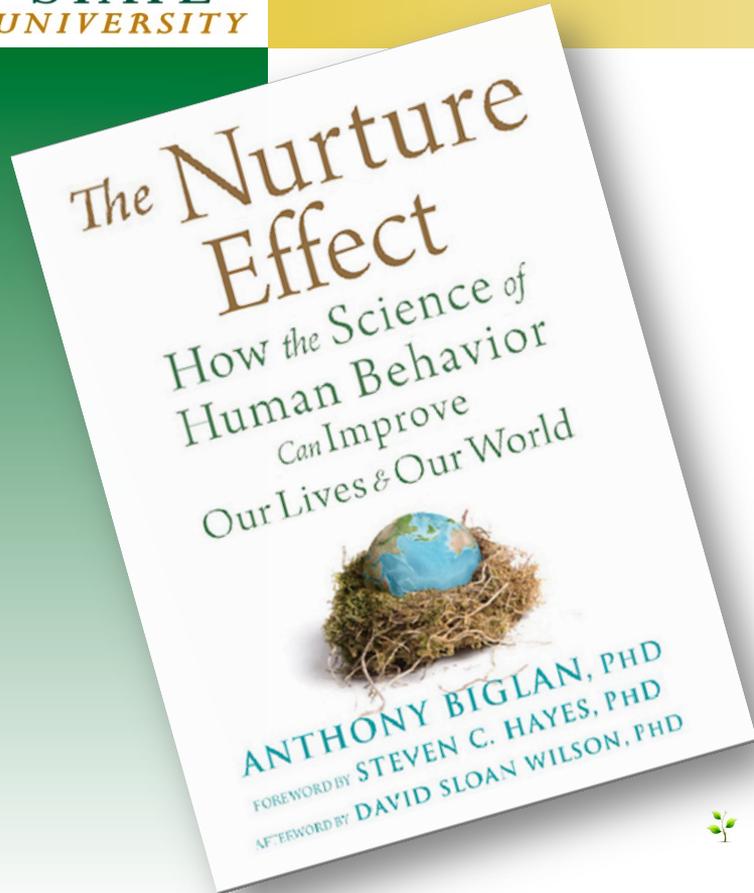
🌱 **Teaching:** the building blocks to complex concepts such as accountability, respect, righteousness, and responsibility

🌱 **Monitoring:** thoughts, feelings, and actions against those values

🌱 Involves ensuring the generalizability and transferability of skills and values



# Creating Nurturing Environments



 Dr. Anthony Biglan, Oregon Research Institute

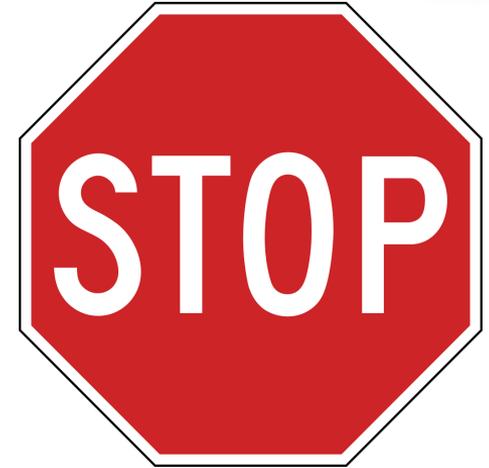
# Evidence-Based Kernels



- 🌱 Low or no cost
- 🌱 Produce immediate benefits
- 🌱 Easily teachable/replicable
- 🌱 Easy promotion or marketing
- 🌱 Alter either risk or protective factors
- 🌱 Fill gaps in skillset or social training
- 🌱 The heart or *Active Ingredient* of an Evidence-based Program

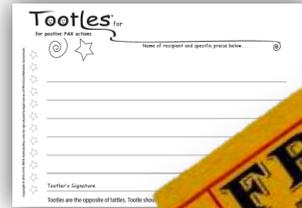


# Evidence-Based Kernels



**Kernels to:**  
**Limit Problematic Behavior &**  
**Reduce Toxic Influences**

# Evidence-Based Kernels



**Kernels to:**  
**Richly Reinforce Pro-Social Behavior**

# Evidence-Based Kernels



## PAX Hands

PAX Hands  
help.

PAX Hands  
never hurt.



## UNIFIED VISION

See	Hear	Do	Feel
			
 SMILING	 LAUGHING	 SHARING	 SAFE
 WALKING	 KIND WORDS	 PLAYING	 PROUD
 FUN	 HELPING	 MAKING FRIENDS	 LOVED

## PAX Voices

 is 0-inch voice  
(no sound)

 is 3-inch voice  
(whispering only)

 is 3-foot voice  
(normal talking)

 is 10-foot voice  
(louder talking)



**Kernels to:**

**Teach Psychological Flexibility**

# Evidence-Based Kernels



**Tootles** for  
my teacher, Mrs. [Name]

Name of recipient and specific praise kernel

DATE

Number's Significance

Teacher's Significance

Teacher's name (the recipient of Tootles)

Tootles about the great things people do for others and themselves

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

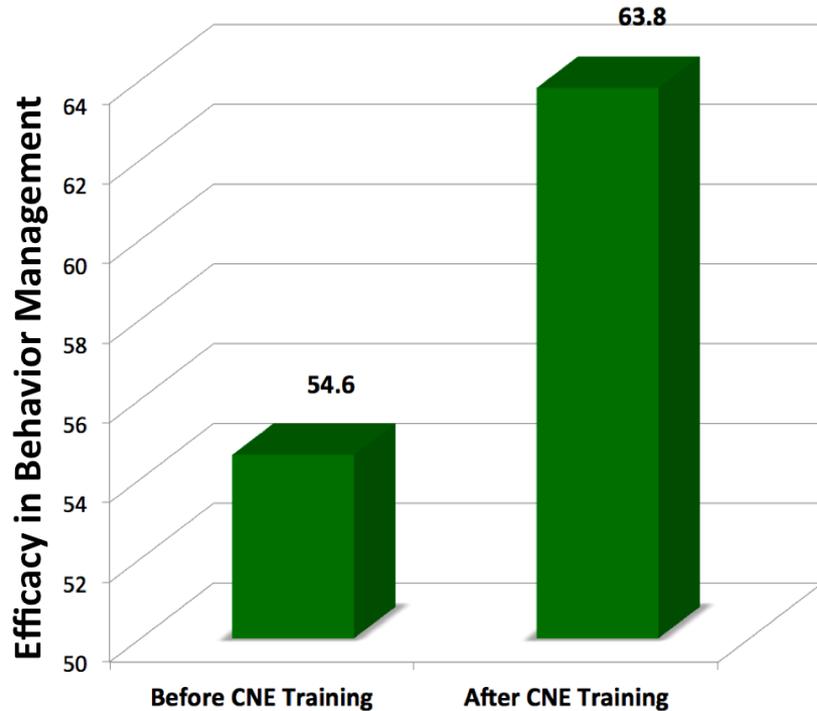


PAX VISION			
See	Hear	Do	Feel
			
SMILING	LAUGHING	SHARING	SAFE
			
WALKING	KIND WORDS	PLAYING	PROUD
			
FUN	HELPING	MAKING FRIENDS	LOVED

- 🌱 Trauma-Informed Universal Prevention strategies
- 🌱 Engaging all non-usual care providers
- 🌱 Public Health approach to decreasing instances of MEBs
- 🌱 Longitudinal evidence of decreases in: Opiate Use, Early Sexual Behavior, Alcohol, and Tobacco Use



## Pre/Post Mean Scores in Behavior Management Efficacy



🌱 Statistically significant increase in behavior management efficacy for Non-usual care providers after evidence-based kernel training



*\*Statistically Significant Growth After Paired Samples t-Test*

## Background

This study examined the impact of delivering a training and curriculum involving a framework for understanding environments and training in evidence-based behavioral kernels, entitled *Creating Nurturing Environments (CNE)*, as a precursor for universal prevention. These evidence-based strategies have shown their merit through contemporary study as well as their origins in cultural anthropology and have already demonstrated a tremendous impact when combined together in the form of classroom-based prevention in schools known as the PAX Good Behavior Game. However, little is known about the impact of training community members as non-usual care providers who come into contact with youth on these strategies. In this quasi-experimental study, participants reported significantly higher levels of self-efficacy in behavior management after receiving CNE training.

## Nurturing Environments

Condition for Nurturing Environment	Description
Reduction of Toxic Influences	Decreasing or preventing biologically or socially aversive influences that impair social development and future social bonds; e.g. abuse, bullying, poverty, lead poisoning, fetal-alcohol syndrome
Reinforcement of Pro-Social Behavior	Identifying, valuing, and reinforcing skills, interests, and habits that promote a healthy, happy, productive life
Limits on Problematic Behavior	Monitoring and setting effective limits on behavior by family, school, or neighborhood with non-harsh consequences
Promotion of Psychological Flexibility	Stating clear overall values and consistently monitoring thoughts and actions against those values

## Evidence-based Kernels

Evidence-based Kernel Type	Description	Practical Example
Reinforcement Kernel	Consequences arranged to increase or decrease behaviors	Thank you or praise notes for repeated positive behaviors
Antecedent Kernel	Cues or prompts for an expected set of behaviors	Chime prompts you to buckle your seatbelt before driving
Relational Frame Kernel	Altering motivation through associations with verbal stimuli	Joining "support the troops" drive and carrying out its work due to the language and consequence associations

## Evidence-based Kernels

Evidence-based Kernel	Description
<b>Praise Notes</b> Reinforcement Kernel Reinforcing Pro-Social Behaviors	Written peer-to-peer thanks for positive behaviors to improve relationships, increase positive behavior recognition, and decrease negative interactions.
<b>Reward &amp; Reminder</b> Reinforcement Kernel Reinforcing Pro-Social Behaviors	Citation and verbal praise to increase target behavior, especially for low-incidence behaviors.
<b>Wacky Prizes</b> Reinforcement Kernel Reinforcing Pro-Social Behaviors	Brief, physical outlets as rewards for positive behaviors often based on otherwise prohibited actions for the environment, e.g. dancing, wiggling, or singing.
<b>Random Skills</b> Antecedent Kernel Reduction of Toxic Influences	Random calling method to preserve fairness and increase focused attention; used for random behavior checks as well.
<b>Fiddle Fate</b> Reinforcement Kernel Reduction of Toxic Influences	Predetermined restorative practices randomly selected as adverse consequences to undesirable behavior.
<b>Beat the Timer</b> Antecedent Kernel Limits on Problematic Behavior	Reduced allocated time for tasks increases task completion, completion time, and decreases disruptive behaviors.
<b>Nonverbal Transition Cue</b> Antecedent Kernel Limits on Problematic Behavior	Harmonics used to unify attention/transition cue; increases cooperation, decreases transition time and disruptive behaviors.
<b>Unified Vision</b> Relational Frame Kernel Promotion of Psychological Flexibility	Observable and quantifiable analysis of expected behaviors for a given task or setting increases target behaviors and improves relations among youth.

## Methods

Participants (46) from various backgrounds including agency administrators, after school care providers, faith-based providers, and behavioral health workers took part in the CNE training as a part of the Community Alliance for Youth – Summer Training Institute. Here they learned how to apply the Nurturing Environments framework to their own setting and also received training on eight evidence-based kernels. Participants took part in a pre/post behavior management scale derived from the Teachers' Sense of Efficacy Scale. This scale measures respondents' confidence in dealing with different areas of behavior management.



## Results



Paired-samples t-tests showed a significant increase in the participants' sense of efficacy in regard to behavior management after receiving the CNE training.

## Discussion



This growth in sense of efficacy in behavior management for non-usual service providers has vital implications in developing a public health approach to behavioral health with universal prevention strategies. These results were significant in that they showed that non-usual service providers could be trained with a framework and evidence-based kernels to deliver preventive interventions with a sense of efficacy. This expanded group of providers will be necessary to carry out true universal prevention.

## Conclusion

The behavioral health field has seen a growth in indicated and selected risk prevention since the 2009 Institute of Medicine report indicating that mental, emotional, and behavioral disorders are preventable. However, changes to field are necessary as the traditional team of therapists, counselors, and behavior specialists will be insufficient to achieve truly universal prevention under a public health model. This study proposes the addition of non-usual care providers to those disseminating evidence-based practices for universal prevention. The performance of those non-usual care providers in this study demonstrates the capacity possessed by the community to disseminate evidence-based practices.

## www.WrightOFER.com

*"What I love about kernels is that when you use them, you notice and feel their immediate impact... I hear more laughing and our workplace feels more energized and fun."*  
-Dr. Greta Mayer, MHRB of Clark, Greene & Madison Counties



*"The 'tootles' concept has taken off and appears to have an instant place in our program. I think it has made a difference in morale - maybe more than any other team-building activity that we have tried in the past. The avenues of communication and positive regard have become healthier."*  
-Michael Higgins, Director, Miami Valley Juvenile Rehabilitation Center

# Evidence-based Kernels in Madison County, OHIO



## Community asked to help 'spread the tootles'

### Initiative aims to boost positivity

By Kristy Zurbrink  
Madison Editor

With say lack, "tootles" will become part of Madison County's vocabulary.

What's a tootles? It's the opposite of tattles. It's a written note of praise that shows the child and where and how to display them for others to see.

Anyone can fill out a tootles for someone doing good in the county. Proven positive actions include everything from hard work and conflict resolution to beautification through music, art or writing.

"Parents could write a tootles thanking the EMS for the help they provided in an auto accident or thank the senior center for the care they provide in their Adult Day Care Center. Maybe someone helped you avoid your driveway that winter and you want to thank them publicly," Halvatin said.

"Research shows that praise and positive reinforcement impacts self confidence and productivity," said Lori Thomas, prevention education coordinator.

"We want to see things going on in Madison, Family Care. There are 15 government leaders here of the county training set for 11 at the Department Services, 200 Miles. Landa will contact Halvatin. shalvatin@msc.edu

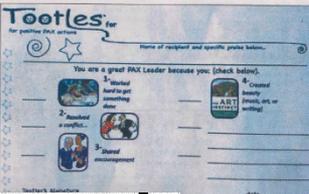
At the training, organizers will seek input from participants on how to "spread the tootles," including ideas for distribution of tootles forms and where and how to display them for others to see.

Anyone can fill out a tootles for someone doing good in the county. Proven positive actions include everything from hard work and conflict resolution to beautification through music, art or writing.

"Parents could write a tootles thanking the EMS for the help they provided in an auto accident or thank the senior center for the care they provide in their Adult Day Care Center. Maybe someone helped you avoid your driveway that winter and you want to thank them publicly," Halvatin said.

"Research shows that praise and positive reinforcement impacts self confidence and productivity," said Lori Thomas, prevention education coordinator.

"We want to see things going on in Madison, Family Care. There are 15 government leaders here of the county training set for 11 at the Department Services, 200 Miles. Landa will contact Halvatin. shalvatin@msc.edu



## Catch 'em being good

For those of you who have not heard, PAX is an ancient Latin word that stands for praise. It also was used by the Romans as an expression of good will or "kiss of peace."

The PAX program is a strategic plan, validated by empirical brain research that effectively changes the way people interact and relate to one another to create a culture that propagates productivity, peace, health and happiness.

Currently PAX-based strategies are actively being used by educators and administrators in many of our county's classrooms, as well as local agencies and businesses. Teachers are encouraged to use the strategies as easy to incorporate in the classroom and have a positive behavioral impact on students mak-



ing."

Most of us are used to receiving a ticket for doing something wrong but what if you were given a ticket for something you did right. Wouldn't that feel amazing, wouldn't you want to continue to feel that way; wouldn't you perceive law enforcement in a different light? Well that is exactly what the London City Police have decided to do. They are on a mission to seek out the best in our youth by identifying verbally recognizing and rewarding them when they are exhibiting positive behaviors.

The unsuspecting recipient(s) will receive a ticket that will entice them to a special reward. Several local businesses such as Wendy's, McDonald's, Planet Diner and Dickey's Ice cream have generously donated gifts in order to help with this plan, and save the needs for healthier relationships based on mutual trust and respect.

The PAX core values and methodology truly

PHOTO people do for others and themselves. Halvatin wants the community to help spread the tootles to people doing good for others and themselves.

PHOTO people do for others and themselves. Halvatin wants the community to help spread the tootles to people doing good for others and themselves.

PHOTO people do for others and themselves. Halvatin wants the community to help spread the tootles to people doing good for others and themselves.

From left, Officer Chris Greene, Sgt. Ross Tipton, Officer Michael Goetzke and Lori Thomas, of MCFE, listen to a recent training session.

many children do not even know when they are doing "something good," because what they "do wrong" receives the majority of attention and criticism by the adults in their lives. This is a behavioral effect of



Taylor Fry thanks Jefferson Mayor Darlene Stehle for holding an Art in the Village event April 22. Stehle invited young people to create chalk art on the sidewalks of downtown West Jefferson. As a creative way to say "thank you," Fry and fellow Norwood Elementary students Mallory Justice and Isabel Sindvad attended a "tootles" note in chalk.

## Tootles notes are catching on

By Kristy Zurbrink  
Madison Editor

Two months ago, the Madison County Department of Family and Children introduced "tootles" as a community-wide initiative. Now, the written notes of thanks and praise are showing up in gyms, pizza shops and even on sidewalks.

Among those who have jumped on board are coaches at the Madison Community Center who write tootles about their players and post them on the center's bulletin board. Plus Dade's Pizzeria in London tootles about employee great work. As a sidewalk chalk art event in West Jefferson, a pizza parlor Stehle for holding the event. Parents who attended the recent Child Abuse Prevention Campaign in London praised their children by way of tootles.

"There seems to be some natural tenders out there—people who feel it's important that praise is given when good things happen," said Lori Thomas, prevention education coordinator.

"Tootles are part of a program called PAX, presented in partnership with the Mental Health Recovery board of Clark, Greene and Madison Counties and Wright State University. PAX is Latin for peace, productivity, health and happiness.

The program not only promotes the positive impact of praise but also teaches strategies for instilling good behavior in others. Ben McCoy, London parks and recreation director, plans to hold a PAX training for city pool employees this spring. Training also is a possibility for volunteers who support the Village's five summer lunch program at the pool.

Thomas said the goal is for the tootles and PAX concept to take on a life of its own throughout the county. The grassroots effort is designed to counteract negativity by emphasizing the power of a positive gathering spirit by holding rallies, food parties and other fun events like bowling nights.

"The goal is to have volunteers take it over so that it becomes an organic community effort," Thomas said.

The next tootles/PAX brainstorming session is scheduled for 1 p.m. July 4 at the London city pool. In the meantime, anyone who wants tootles forms or information can contact Lori Thomas at (740) 922-6342.

 A model for community-wide Evidence-based prevention

# Low Cost...



## Jason Fruth: The Tootle trainer

By Rob Treyner  
rtreyner@ohio.com

"This isn't warm, fuzzy, feel-good stuff. This is psychology."

Jason Fruth, Ph.D., assistant professor in Wright State's Department of

tivity.  
"PAX is the thing and the feeling we all need more of," Fruth said.  
"That feeling you get when you watch those YouTube videos of soldiers returning home to surprise their family—that's the kind of feeling we want to create in our homes and workplaces," Fruth



By PAX's presentations are handouts of appreciation. Fruth delivers to a family member, or

Jason Fruth, Ph.D., assistant professor in Wright State's Department of Education, teaches the Community PAX program to a full house of county citizens and leaders on Thursday, March 20.

'Tootles in the community:

During Monday night's West Jefferson vil-



By Rob Treyner | The Madison Press  
Lori Thomas of the Madison County Department of Job & Family Services teaches the Community PAX program to Plain City Village Council. The program, based largely on positive reinforcement, is designed to improve the quality of life in this community.

## The power of PAX

By Rob Treyner  
rtreyner@ohio.com

Tootles are the opposite of tattles.  
This was the message brought to the Plain City Village Council recently by Sherry Baldwin of Madison County Family & Children First Council, and Lori Dodge-Dorsey and Lori Thomas from the Department of Job & Family Services.

This year, we did a comprehensive needs assessment in conjunc-

tion with the health department and Madison County Hospital," Baldwin told council. "We joined forces and looked at social services and health care needs."

One of the projects that issued forth from that needs assessment was a program called "Tootles."

A tootle is a slip of paper where one writes praise for another person. The pre-printed forms have a line for the name of the recipient along its top; below that, it reads

"You are a great PAX leader because you:" below that, are check boxes which read, 1) Worked hard to get something done, 2) Resolved a conflict, 3) Shared Encouragement, and 4) Created Beauty (music, art or writing).

"A single slip of paper from a teacher to a student, written about something positive, improves the child's ability better than a visit to a mental

See PAX | 2



Madison County Department of Jobs and Family Services funded by MHRB of Clark, Greene & Madison



Community-wide introduction to kernels and prevention



Local business owners, government officials, and all those working with youth received Evidence-based Kernel Training

# Immediate benefits...



Creating a **pax** Pool  
*3 Kernels for a great summer!*

- 🌱 Evidence-based kernel training for London Pool Staff
- 🌱 Lifeguards noted increased positive interactions with youth
- 🌱 Also... fewer behavior infractions and ejections



# Easily replicable...



**Reward/Reminder  
in the Community**



- 🌱 Evidence-based Kernel training for London Police officers
- 🌱 Trained to use reward/reminder kernel to increase positive community engagement
- 🌱 Utilized buy-in and support from local businesses



# Easy marketing...



www.columbusmessenger.com



Mayor Fry thanks Jefferson Mayor Darlene Steele for holding an Art in the Village event April 22. Steele invited young people to create chalk art on the sidewalks of downtown West Jefferson. As a creative way to say "thank you", Fry and fellow Norwood Elementary students Mallory Justus and Isabel Swindall stenciled a "tootle" note in chalk.

## Tootle notes are catching on

By Kristy Zurbick  
Madison Editor

### Taking PAX to school

First Posted: 6:24 pm - August 3rd, 2015 - 312 Views



Teachers in London City Schools and Madison-Plains Local Schools will take PAX training Monday, Aug. 10. The all-day training will be given to 53 teachers who in turn will use it as they teach as many as 1,000 children in both school districts. Front row, from left: Dr. Jason Fruth, session teacher from Wright State, Dr. Greta Mayer, Mental Health Recovery Board director of Prevention and Community engagement, Brenda Rock, director of Madison County Family Council and Kyle Pritchard, Education Supervisor, London City Schools; second row: Madison County commissioners, David Dhume and Mark Forrest and Superintendent of London City Schools Lou Kramer.  
Dean Shipley | The Madison Press

State University. PAX is Latin for peace, productivity, health and happiness.

The program not only promotes the positive impact of praise but also teaches strategies for instilling good behavior in others. Ben McCoy, London parks and recreation director, plans to hold a PAX training for city pool employees this spring. Training also is a possibility for volunteers who support the Vineyard's free summer lunch program at the pool.

Thomas said the goal is for the tootles and PAX concept to take on a life of its own throughout the county. The grassroots effort is designed to counteract negativity by emphasizing the power of a positive mindset, she said. To help spread the word, supporters are contacting businesses, churches, food pantries and other spots like bowling alleys.

"The goal is to have volunteers take it over so that it becomes an ongoing community effort," Thomas said.

The next tootles/PAX brainstorming session is scheduled for 1 p.m. July 8 at the London city pool. In the meantime, anyone who wants tootle forms or information can contact Lezi Thomas at (740) 852-8842.



## They are feeling good about school

BY DEAN SHIPLEY  
Staff Writer

### PAX GOOD BEHAVIOR A PLUS AT MONROE

Are snorts, whinnies, hoots, moos and cackles "good" behavior in a classroom?

The aforementioned sounds are rewards for good behavior as enthusiastically exhibited by Laura Hipp's first grade class at Monroe Elementary School. Because the students had performed well in a teaching unit on vowel friends, they were rewarded with a prize from Granny's Wacky Prize box.

That box stands as an integral part of the PAX good behavior system, which was put in place at Monroe in August. Its staff and administration have been working with the system throughout the year. They have embraced it and after a year, it's showing positive results.

On a visit to the school during the school year, this reporter observed the PAX good behavior system in action. Learning vowel friends was presented in a game format.

To illustrate: The PAX "game" started as Hipp posed a question which began clicking off the seconds for the lesson on "vowel friends." The PAX game had boys versus girls. Designated to be completed in a set number of minutes, Hipp posed a question and asked for an answer. A student shouted one out.

See GOOD page 2

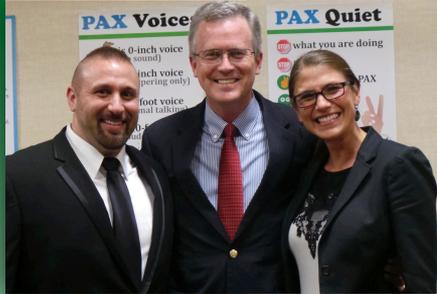


Students in Sue Cutler's first-grade class play the laughter game, a prize from Granny's Wacky Prize box. It's a reward for the class's good response to a teaching unit.



Good News in the community is an "easy-sell"

# Alter risk or protective factors...



*"What I love about kernels is that when you use them, you notice and feel their immediate impact...I hear more laughing and our workplace feels more energized and fun."* **-Dr. Greta Mayer, MHRB**  
of Clark, Greene & Madison Counties

*"I had a great time a few weeks ago developing our classroom PAX Vision...The classroom has been full of joy and fun since we began PAX."*

**-Su-Ann Newport, Grace Evangelical Lutheran Church**



*"The "tootles" concept has taken off and appears to have an instant place in our program. I think it has made a difference in morale - maybe more than any other team-building activity that we have tried in the past. The avenues of communication and positive regard have become healthier."*

**-Michael Higgins, Director, Miami Valley Juvenile Rehabilitation Center**

# Fill gaps in skillsets...



- 🌱 Community kernel training provides all members with evidence-based background
- 🌱 Ensures culturally responsive measures that cross cultures and generations

# Fill gaps in skillsets...



- 🌱 Kernel training for all “non-usual care providers” under development
- 🌱 WSU and OMHAS partner to bring literature and online training to all Ohio adults who work with children

# The Active Ingredient of any Evidence-based Practice...



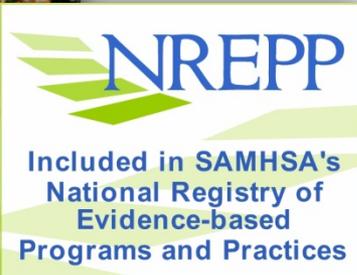
***A Behavioral Vaccine***



## 2014 International PAX Partner Training



- The PAX Good Behavior Game®
- A set of research-based strategies employed in the classroom that teach self-regulation
- This self-regulation creates
  - More nurturing environments
  - Increased academic performance
  - Improved long-term outcomes



- The Good Behavior Game has undergone multiple randomized control trials with over 25 years of longitudinal research from Johns Hopkins University
- Recommended in:
- National Registry of Evidence-based Programs and Practices
- The 2009 Institute of Medicine Report
- Washington State Institute for Public Policy Report

# PAX GBG & Nurturing Environments



Richly Reinforce Pro-social Behaviors



Reduce Toxic Influences



Creating Nurturing Environments

Limit Problematic Behaviors



Increase Psychological Flexibility

PAX VISION			
See	Hear	Do	Feel
			
			
SMILING	LAUGHING	SHAKING	SAFE
			
WALKING	KIND WORDS	PLAYING	PROUD
			
FUN	HELPING	MAKING FRIENDS	LOVED



## Background

This study examined the impact of a classroom-based universal preventive intervention (PAX Good Behavior Game) on proximal and distal outcomes of 4<sup>th</sup> graders. This intervention was introduced at the beginning of the school year, and behavioral (disruptions per student per hour) and academic (short cycle reading performance) outcomes were tracked throughout the year as well as compared to control classrooms.

## Efficacy Trials

The PAX Good Behavior Game has undergone multiple randomized control trials from Johns Hopkins University. These trials found PAX classrooms to have:

- 60-90 minutes of additional instruction
- 75% fewer disruptions
- 60% fewer discipline referrals
- 20-30% drop in identification for special education services

When these PAX students were tracked to age 21, they found that PAX students had:

- 50% less drug dependence
- 68% less tobacco use
- 35% less alcohol dependence
- 32% less criminal activity



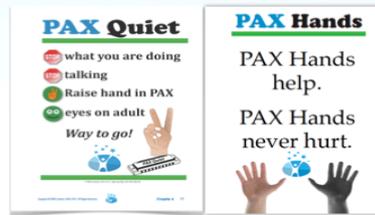
## Methods

4<sup>th</sup> grade students receiving PAX GBG had their proximal outcomes (disruptions per student per hour) tracked as a part of a within group repeated measures design and had their distal outcomes (short cycle reading performance) tracked and compared to the control group of 4<sup>th</sup> graders receiving the business-as-usual classroom instruction.

The PAX Good Behavior Game involves teaching self-regulation through the administration of 5 evidence-based kernels, 4 research-based cues, and the soft team competition of the Good Behavior Game.

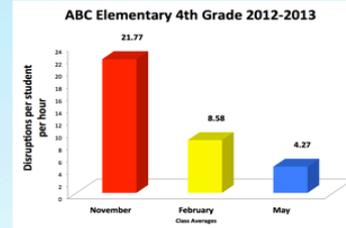


By using PAX to adjust the antecedents, reinforcement, and relational frames in the classroom during normal academic activities, students begin to show drastic improvements in behavior and performance.

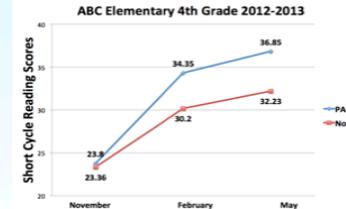


## Results

4<sup>th</sup> grade students receiving the PAX Good Behavior Game demonstrated a significant decrease in disruptive behavior throughout the year.



Students receiving the PAX Good Behavior Game also demonstrated substantially higher reading scores than students receiving normal classroom instruction.



## Conclusion

This effectiveness trial yielded similar results to the efficacy trials carried out in ideal clinical conditions over the past 25 years. This indicates that teachers can successfully carry out universal prevention interventions in the classroom and see an improvement in academic and behavioral outcomes.

## Discussion

The PAX Good Behavior Game appears in the Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practices. It is also recommended by name in the 2009 Institute of Medicine Report. When teachers use the PAX Good Behavior Game in the classroom, they are not only increasing the peace, health, happiness, and productivity of their students. They are teaching self-regulation and not merely administering classroom management. This self-regulation lasts a lifetime. In fact, a teacher who uses the PAX Good Behavior Game throughout a 30-year career will likely have:

- 66 more girls graduate from high school
- 49 more boys graduate from college
- 7 fewer boys convicted of violent crimes
- 72 fewer students develop drug addictions
- 49 fewer students using tobacco
- 27 fewer students using alcohol

The financial impact of this one teacher using the PAX Good Behavior Game on society amounts to over \$9,700,000 in savings to local, state, and national communities and governments.

## Background

This study examined the impact of a universal preventive intervention (the PAX Good Behavior Game) on the sense of efficacy of pre-service teacher candidates. This classroom-based universal preventive intervention is listed in the National Registry of Evidence-based Programs and Practices and is recommended by the 2009 Institute of Medicine Report. It has shown to proximally decrease disruptive behaviors, stabilize and decrease both depressive and aggressive symptoms, while increasing instructional time and on-task behavior. It has shown to longitudinally increase graduation rates and college entrance rates, while decreasing drug dependence, tobacco use, alcohol dependence, risky sexual behavior, and suicide ideation. However, as this intervention had only been instructed as a professional development workshop for practicing teachers, little was known about the impact of including universal prevention training as a part of a pre-service teacher education program on the sense of efficacy of pre-service teacher candidates.



## Methods

This randomized control study examined the impact of the exclusive Wright State University PAX Pre-service Teacher Training Course on the sense of efficacy of early childhood pre-service teacher candidates. Treatment students received a semester-long course in the PAX Good Behavior Game in addition to their pre-service training, while control students received the normal early childhood program. The Teachers' Sense of Efficacy Scale was used to measure the growth in efficacy of the two groups.

## Results

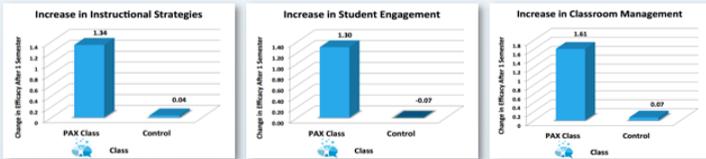


Table 1  
Means and standard deviations of self-efficacy for PAX GBG and control group

Variables	Control group (n=11)		Treatment group (n=15)	
	Mean	SD	Mean	SD
Total score	187.0	21.3	197.2**	8.3
Instructional strategies	62.2	7.3	64.7**	3.6
Student engagement	62.2	8.3	65.0**	3.9
Classroom management	62.5	6.2	67.4**	2.0

Table 2  
Means and standard deviations of self-efficacy for the PAX GBG group

Variables	Pre Score (N=15)		Post Score (N=15)	
	Mean	SD	Mean	SD
Total score	163.5	18.8	197.2**	8.3
Instructional strategies	54.0	6.6	64.7**	3.6
Student engagement	54.7	6.6	65.0**	3.9
Classroom management	54.7	7.1	67.4**	2.0

Paired t-tests showed that PAX candidates demonstrated a greater sense of efficacy after receiving PAX instruction. Independent t-tests showed PAX students to have a greater sense of efficacy than the control students in the areas of Instructional Strategies, Student Engagement, and Classroom Management.

## Conclusions

Teachers' sense of efficacy has shown to predict teacher performance, teacher retention, and student performance. Thus, increasing this efficacy with a proven universal preventive intervention can have tremendous impacts on teachers and students. In fact, this student/teacher improvement lends itself to a transactional model in which teacher performance and behavior not only influences but is also influenced by student performance and behavior. This constant dynamic exchange and improvement can explain the tremendous longitudinal impacts that the PAX Good Behavior Game has on children.



The ONLY accredited PAX Pre-Service Teacher Training in the United States is at Wright State University

## Background

This study examines the effect of providing universal preventive intervention training with the PAX Good Behavior Game on the sense of efficacy of pre-service middle childhood teacher candidates when delivered as a part of their teacher education program. Numerous longitudinal studies have outlined the proximal and distal outcomes of PAX GBG on students. PAX GBG has also shown to increase the sense of efficacy in pre-service and in-service early childhood teachers.



## PAX GBG and Efficacy

In previous studies, PAX GBG has shown to increase teachers' sense of efficacy. Whether delivered as a part of a pre-service teacher education program or in-service teacher professional development, PAX GBG training includes classroom management, social/emotional, and group dynamics skill modeling. This experience caused an overall increase in many target areas including:

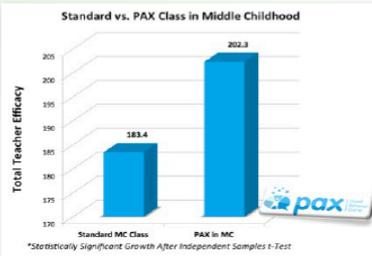
- **Overall Teacher Self Efficacy**
- **Student Engagement**
- **Instructional Strategies**
- **Classroom Management**

## Methods

The 31 participants in this study were members of a four-year undergraduate middle childhood education program. This program requires a classroom management course as a part of the undergraduate educational study for pre-service teacher candidates.

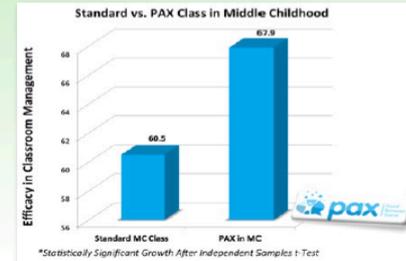
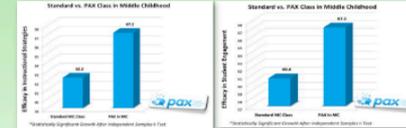
One section for this course requirement was selected to receive PAX GBG universal prevention training as a part of the classroom management course requirement. Minor modifications were made to the trauma-informed prevention strategies and delivery of PAX GBG to make it appropriate and useful for application in the 4<sup>th</sup> through 9<sup>th</sup> grades for middle childhood teacher candidates. The Teacher's Sense of Efficacy Scale, a 24 item questionnaire, was used to assess and compare teacher candidate performance.

## Results



## Results

Paired t-tests showed that teacher candidates in the PAX GBG group scored significantly higher on overall TSE (202.3 vs. 165.0) as well as on the three subscales: Instructional strategies (67.2 vs. 54.8), student engagement (67.2 vs. 56.3) and classroom management (67.9 vs. 54.8) at the conclusion of the course compared to before the course.



Independent t-tests showed that PAX GBG candidates demonstrated a significantly higher sense of efficacy after the course than those without training in overall efficacy (202.3 vs. 183.4) as well as on the three subtests: Instructional strategies (62.3 vs. 67.2), student engagement (60.6 vs. 67.2) and classroom management (60.5 vs. 67.9).

## Conclusions



The extended exposure to evidence-based principles along with experiences with PAX GBG in the field, student-directed literature reviews, group research projects, and in-class and online instruction allowed teacher candidates tremendous depth to their study and understanding of prevention, self-regulation, and behavior. Teacher candidates report higher levels of efficacy after participating in PAX GBG instructional courses, and are more ready to enter the field as effective and professional educators.

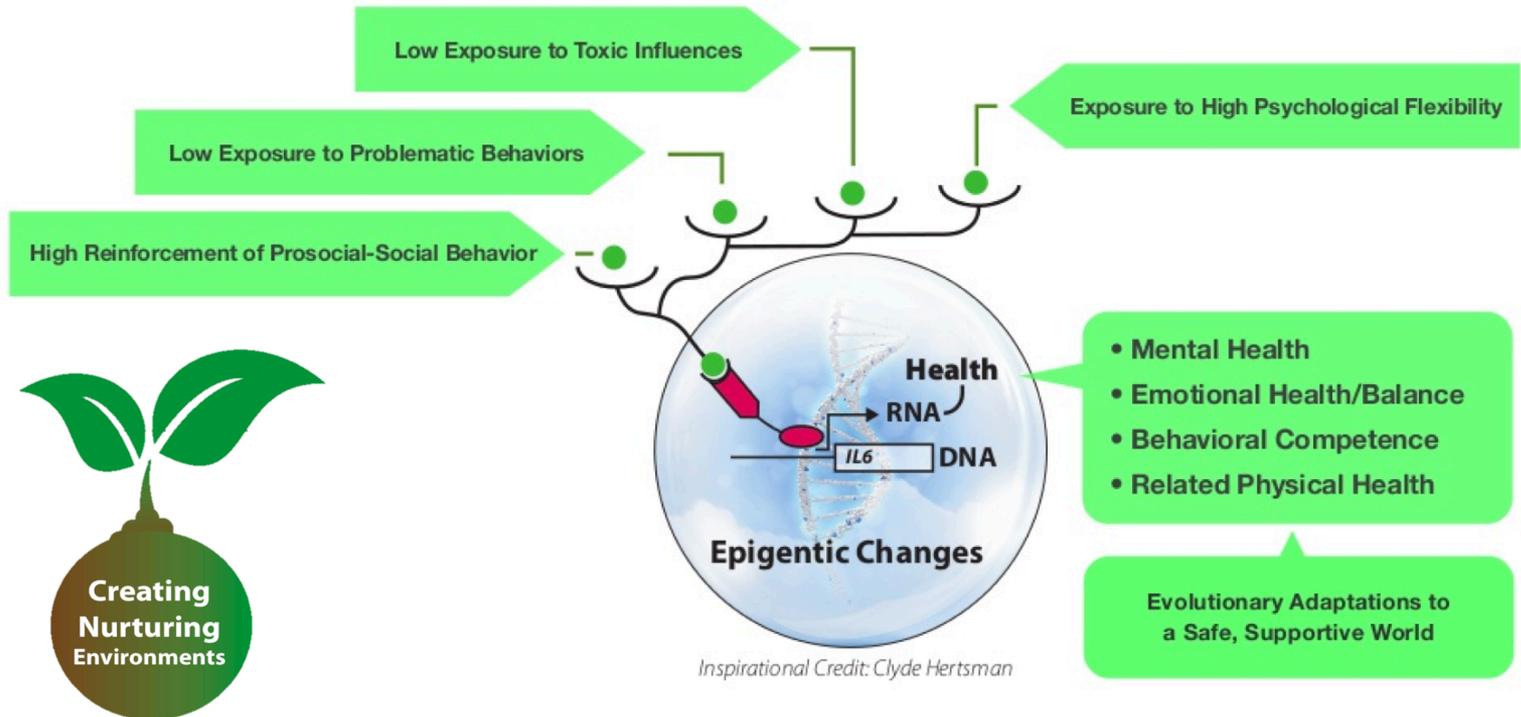


[www.WrightOFER.com](http://www.WrightOFER.com)

# Creating Nurturing Environments



Conditions producing positive trends...



Inspirational Credit: Clyde Hertsman

Visit: [GoodBehaviorGame.org](http://GoodBehaviorGame.org) today!

Dr. Jason Fruth, Wright State University



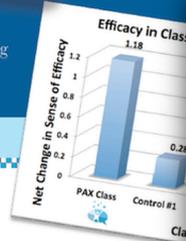
at Wright State University

The ONLY Accredited PAX Pre-service Teacher Training in the United States is at Wright State University

[www.WrightOFER.com](http://www.WrightOFER.com)

If a teacher spends an entire 30-year career using PAX...

- 66 More girls will graduate from high school
- 49 More boys will enter college
- 7 Fewer boys will be convicted of violent crimes
- 72 Fewer boys will develop serious drug addictions
- 49 Fewer boys will become



What does PAX/GBG

do for future tea

The PAX Good Behavior Ga teaching strategies with prov randomized control trials wit of their impact on the lives of

## Jason Fruth: The Tootle trainer

By Rob Treynor

tivity. "PAX is the thing and the feeling we all need more of," Fruth said.

"That feeling you get when you watch those YouTube videos of soldiers returning home to surprise their family — that's the kind we need more of in and in our workpl said.

Community many components "Tootles." Tootles

