PROGRAM EVALUATION

PAXIS Institute

Ohio Mental Health & Addiction Services

2017-2019

OHIO CURES & PAX GOOD BEHAVIOR GAME

1. Introduction

Ohio Mental Health and Addiction Services (OMHAS) sponsored a 2-year scale up of the PAX Good Behavior Game (PAX GBG) and its related components as a part of the Ohio Cures initiative in 2017-2018 & 2018-2019. This was a part of the state and federal effort to prevent factors contributing to the opioid epidemic. This scale-up was intended to promote positive lifetime outcomes for Ohio youth. To this end, this initiative had the following aims:

- Dramatically increase classroom PAX GBG implementations across the state
- Increase the capacity for Ohio-based training of PAX GBG and its related components
- Increase PAX Partner support for new and existing PAX GBG classrooms
- Develop a dynamic model for increasing internal capacity for PAX Partner support
- Provide focused professional development for new and existing PAX GBG classrooms
- Improve statewide sustainability for PAX GBG implementation through webinars, regional leaders, and strategic planning
- Grow from self-contained pockets of implementations into a network of statewide implementers fostering collaborative support
- Increase the prevalence and influence of PAX GBG in Ohio pre-service education institutions

Need

The state of Ohio demonstrates a distinct need to prevent the onset of mental, emotional, and behavioral disorders that develop in early childhood and school-age children. These disorders represent a serious threat to the public health of the state as well as the single greatest expense to Medicaid and private insurance for pediatric health care. This need is compounded by the impact of the opioid epidemic in Ohio, which ranks second nationally in opioid overdose deaths. Unintentional drug overdoses remain the leading cause of injury-related deaths in Ohio with 85% of those attributed to opioids. Total opioid deaths increased by nearly 500% from 2006 to 2015. Decreasing risk factors in young people for drug use, such as poor impulse control, anxiety, depression, hyperactivity, and aggression significantly reduces the risk for opioid and other drug use in youth and adults. This is especially important for young people exposed to trauma and other aversive childhood experiences due to exposure to incidents involving opioids in their families and communities. Instituting universal prevention in a public health model is vital for the health and prosperity of the citizens of Ohio.

Intervention

PAX Good Behavior Game is a universal primary preventive intervention used by teachers in their daily practice to teach self-regulation as a skillset. This self-regulation provides for decreased problematic behavior, increased academic performance, and drastic improvement across an

array of lifetime outcomes (Kellam et al., 2008, Bradshaw, Zmuda, Kellam, & Ialongo, 2009). PAX GBG is one of the most scientifically proven classroom-based prevention programs to reduce the risk of substance use, mental, emotional, and behavioral health disorders in as little as one semester (Wilson, Hayes, Biglan, & Embry, 2014, Jiang, Santos, Mayer, & Boyd, 2015, Furr-Holden, et al., 2004). These outcomes include a 67% reduction in opiate use (Furr-Holden, et al., 2004). PAX GBG represents a public health approach to primary prevention by serving as an intentionally engineered universal preventive intervention to prevent high-risk disorders (IOM, 2009). When adults use the PAX Good Behavior Game with young people, they create a nurturing environment that impacts electrical, neurochemical, neural connectivity, and epigenetic make-up in young people with lasting lifetime effects. PAX GBG offers updated add-ons for selective and indicated populations as well.

With multiple randomized control trials in the efficacy stage and numerous effectiveness trials across the world, PAX GBG meets SAMHSA's criteria for identifying evidence-based programs and practices (Kellam, et al., 2011). Use of PAX GBG in a public health model affects one of the single greatest expenses in pediatric health care: mental, emotional, and behavioral health disorders. By significantly reducing these disorders, their affects on families, society and subsequent economic impact through service use and lost wages, the Washington State Institute for Public Policy calculated PAX GBG to have a return on investment of 65:1 (Aos, Lee et al. 2013). Recent studies have also indicated improvements in provider (teacher) outcomes when implementing PAX GBG including increased sense of efficacy as well as decreased stress and depression (Huber et al., 2016, Ghadheri, Johansson, & Enebrink, 2017). This ensures increased provider retention and programmatic sustainability. PAX GBG also offers an array of support models to fit each community as well as Strategic Planning and Development for arranging PAX GBG into community wide Strategic Prevention Frameworks.

History

The first implementations of PAX GBG in Ohio occurred in 2006. By 2016, about 3,400 teachers had been trained through several large initiatives including federal SAMHSA and Safe Schools/Healthy Students initiatives as well as a plethora of prevention initiatives sponsored by OMHAS. Local recovery boards, educational service centers, school districts, hospitals and a number of other stakeholders contributed to implementations across the state as well. The result was over 3,400 teachers trained in PAX GBG within pockets of concentration across the state. This represented the single largest concentration PAX GBG in any state or province at the time.

Many of the Ohio implementations were able to replicate the tremendous proximal and distal outcomes attained in the original efficacy trials of the intervention at Johns Hopkins University. However, many pockets of implementations found it difficult to sustain, support, or expand their implementations from both a content and resource standpoint. The Ohio Cures initiative in 2017 provided resources to not only dramatically scale-up the PAX GBG implementations across the state, but also develop mechanisms for statewide sustainability including, PAX Partner support, strategic planning, and in-state trainers of PAX GBG and its related components.

Purpose

This evaluation was designed to determine the degree to which the outcomes of this project met the following aims:

- Dramatically increase classroom PAX GBG implementations across the state
- Increase the capacity for Ohio-based training of PAX GBG and its related components
- Increase PAX Partner support for new and existing PAX GBG classrooms
- Develop a dynamic model for increasing internal capacity for PAX Partner support
- Provide focused professional development for new and existing PAX GBG classrooms
- Improve statewide sustainability for PAX GBG implementation through webinars, regional leaders, and strategic planning
- Grow from self-contained pockets of implementations into a network of statewide implementers fostering collaborative support
- Increase the prevalence and influence of PAX GBG in Ohio pre-service education institutions

This evaluation also measured the *outputs, training effectiveness, maintenance, sustainability*, and *predictive impact* of the programming provided by PAXIS Institute within the initiative. By examining multiple constructs of multiple distinct programs, this evaluation measured policy, strategy, and practice alterations for increasing the public health benefit in a population level initiative. This evaluation examined all of the Ohio Cures PAX GBG programming including:

- PAX GBG Summit
- PAX Strategic Planning and Development Training
- PAX GBG Initial Teacher Training
- PAX Next Steps Teacher PD Training
- PAX Heroes Teacher PD Training
- PAX Partner Training
- PAX Partner Heroes PD Training
- PAX Tools Training
- PAX Pre-Service Training

2. PAX Good Behavior Game Program Description

The PAX GBG project under the Ohio Cures initiative consisted of nine distinct program components. Each of these programs played a part in building the prevalence, sustainability, and effectiveness of PAX GBG across the state.

PAX GBG Summit

The PAX GBG Summit was held in July 2018 in Columbus, Ohio. This event allowed stakeholders to meet with OMHAS and PAXIS Institute officials and gather information about upcoming PAX Training available statewide as a part of the Ohio Cures initiative. Community leaders and stakeholders also networked and collaborated with peers from across the state to develop plans for implementing PAX GBG in their region. This event provided for professional development and information sessions for numerous types of stakeholders involved with PAX GBG. The event also provided practical strategies for school officials and PAX Partners for implementing tiered models of PAX Partner support within schools to increase local fidelity and sustainability of implementations. The summit provided strategic planning and development sessions promoting the integration of PAX GBG plans into local and regional strategic plans in order to increase the sustainability of implementations at the conclusion of the project. This event was also used to increase the pool of Ohio-based training staff and update current trainers on new components of 2018-2109 trainings through PAX Training inductions. This allowed PAXIS Institute to re-align and update statewide training for localized interests such as trauma and opioid use to increase the fidelity of training.

PAX Strategic Planning and Development

PAX Strategic Planning and Development sessions provide guidance to local and regional groups and agencies as well as stakeholders in planning for their new or existing PAX GBG implementations. This 1-day, in-person session features guidance and feedback from a certified PAX Trainer in planning and coordinating resources before beginning a PAX GBG implementation or creating for sustainability or expansion during or after an initial PAX GBG implementation. This session also helps stakeholders fit PAX GBG into a Strategic Prevention Framework and plan for each step including Assessment, Capacity, Planning, Implementation, Evaluation, Cultural Competence, and Sustainability. By organizing needs and resources through PAX Strategic Planning and Development, regions can prepare for maintenance and expansion opportunities as they arise and also identify and unite stakeholders, resources, and support. Communities that take part in PAX Strategic Planning and Development training optimize their local capacity for prevention support and maximize the sustainability of their implementations. Outcomes from a Strategic Planning and Development session also provide communities with logic models and other information necessary to secure subsequent internal and external funding.

PAX GBG Initial Teacher Training

PAX Good Behavior Game Initial Teacher Training provides current teachers with training in all the classroom strategies of PAX GBG. This 1-day, in-person session allows up to 40 teachers to learn the evidence-based practice along with their peers in an interactive format from a certified PAX trainer. This is the foundational training of PAX GBG and ensures proficiency in each of the PAX Kernels as well as the PAX Game. In addition to implementing strategies, teachers learn the importance of a nurturing environment and its effects on trauma, self-regulation, and mental health outcomes throughout the lifespan. Teachers also learn about the role they can play in supporting the students that are most affected by environmental influences. In this training, teachers receive a PAX Kit that provides all the materials necessary to carry out PAX GBG in their own classroom including the PAX GBG Manual. Teachers also receive training on utilizing the PAX Up! App for implementing and monitoring their use of PAX GBG in their classroom. Teachers leave this session with all the training and skills necessary to begin their PAX GBG implementation the very next day. PAX GBG Initial Teacher Training also demonstrates how PAX strategies integrate seamlessly into existing PBIS, RTI, MTSS, and other school-wide procedures.

PAX Next Steps Teacher Training

PAX Next Steps Training provides teachers who have previously been trained in PAX GBG with enrichment and extension activities. This 1-day, in-person professional development training expands on the lessons from PAX GBG Initial Teacher Training and the original PAX Manual for up to 40 teachers. This training explores advanced strategies and methods in the PAX Manual that are not provided in the initial teacher training. This training also gives teachers access to a certified PAX Trainer to help troubleshoot implementation issues they may be facing in the classroom. It also provides explicit instruction for using PAX Kernels in tiered instruction and for students who have been exposed to trauma. Teachers also receive training on utilizing the PAX Up! App for implementing and monitoring their use of PAX GBG in their classroom. PAX Next Steps Training provides in-depth instruction for differentiated application of many traditional PAX strategies to create expertise in implementing PAX GBG.

PAX Heroes Teacher Training

PAX Heroes Teacher Training provides up to 40 teachers who have previously been trained in PAX GBG with new variations and strategies for students who continue to demonstrate behavioral difficulties. This 1-day, in-person training delivers explicit instruction in using the PAX Heroes Manual to identify areas of student difficulty and refining PAX GBG implementation to support those needs. PAX Heroes Teacher Training also provides instruction in analyzing activities and areas of difficulty for students and selecting targeted Tier 2 and Tier 3 strategies to improve their behavioral and academic performance. Teachers also receive training on utilizing the PAX Up! App for implementing and monitoring their use of PAX GBG in their classroom. This training also provides explicit instruction in behavior observation and analysis useful in identifying useful strategies in and out of the classroom. PAX Heroes Teacher Training provides instruction in integrating PAX Heroes assessment, analysis, and strategies with existing clinical assistance and school-wide procedures.

PAX Partner Training

PAX Partner training provides up to 20 internal or external school personnel who have previously been trained in PAX GBG with the skills to support a new or existing PAX GBG implementation. This 3-day training features one day of online content instruction followed by two days of in-person instruction with a certified PAX Trainer. This instruction and the PAX Partner Manual provide PAX Partners with the skills to support teachers in initiating and maintaining a PAX GBG implementation in their classroom by promoting the step-by-step integration of PAX strategies with fidelity into their classroom procedures. Partners also receive instruction on using the PAX Up! App for data collection and analysis as well as guiding classroom implementations. This training also includes strategies for troubleshooting and additional assistance for teachers with students who continue to struggle. PAX Partners learn expert coaching and support skills in order to effectively guide teachers as they improve their implementation. Partners also learn fidelity monitoring and use of data to alter implementations and collaborate with school and district administration to generate the best outcomes possible from the PAX GBG implementation.

PAX Heroes Partner Training

PAX Heroes Partner Training provides up to 20 previously trained PAX Partners with the PAX Heroes Manual and two days of in-person instruction with a certified PAX Trainer. This training provides skills in supporting teachers who will be implementing PAX Heroes strategies with students in need of more individualized support from Tier 2 and Tier 3 strategies. Partners also receive instruction on using the PAX Up! App for data collection and analysis as well as guiding classroom implementations. PAX Partners will learn to guide teachers in their structured observations and analysis of problematic behavior. They will also learn to refine PAX GBG implementation to support the specific needs of students that struggle behaviorally. They will also learn to guide strategy selection for students with the most intense needs as well as integrating PAX Heroes into schoolwide PBIS structures and behavioral procedures. PAX Heroes Partner training also provides methods for coordinating PAX Heroes implementations with available clinical and counseling support available in the school or district.

PAX Tools Training

PAX Tools Training provides up to 40 community-based leaders with the PAX Tools Manual and strategy instruction rooted in the PAX Good Behavior Game from a Certified PAX Trainer. Participants will learn to implement and share PAX Strategies for implementation in the home and community. Participants can then disseminate these research-based strategies at the individual or group level for improving youth outcomes and relationships with adults. This training provides detailed instruction for implementing community-based strategies in a variety of settings as well as utilizing the PAX Up! App for monitoring and evaluating progress. Some potential settings and recipients for PAX Tools include: parents, childcare workers, behavioral health, faith-based settings, juvenile justice, and recovery settings.

PAX Pre-Service Training

PAX Pre-service Training consists of PAX GBG Initial Teacher Training tailored to the pre-service teacher setting. This 1-day, in-person training provides up to 40 pre-service teacher candidates with PAX GBG instruction along with a PAX GBG Kit and Manual to use in their own classrooms as well as to practice in their field placements that use PAX GBG. This opportunity also encourages the collaboration between the college's participating pre-service teacher training program and the local schools they partner with for student teaching. PAX Pre-service Training is a step on the PAX Pre-service Rollout that provides opportunities for partnership between universities and PAXIS Institute in the areas of research and other human service strategy dissemination.

3. Methods of Evaluation

In order to determine the degree to which the project met the aims of this initiative, this evaluation was designed to measure the ***outputs, training effectiveness, maintenance, sustainability,*** and ***predictive impact*** of the programming provided by PAXIS Institute within the initiative. Measurement of these constructs within a scale-up initiative detects strengths, weaknesses, and variations that arise from a true public health application of a universal preventive intervention and related programming.

Outputs

The outputs of the initiative were tracked using the secure online registration system. These outputs include:

- Number of local PAX Trainers certified
- Number of PAX GBG Summit participants
- Number of PAX Strategic Planning and Development participants and instances
- Number of teachers trained in PAX GBG
- Number of teachers trained in PAX Next Steps professional development
- Number of teachers trained in PAX Heroes
- Number of internal and external PAX Partners trained
- Number of PAX Partners trained in PAX Heroes
- Number of pre-service candidates trained in PAX GBG and collaborative partnerships
- Number of community leaders trained in PAX Tools

Outputs also include the distribution of materials throughout the initiative. Training outputs were also analyzed and contribute to the ***sustainability*** measurement made up of the geographic concentration of PAX Partners trained and PAX Strategic Plans developed in relationship to the number of PAX GBG teacher trained in each region.

Training Effectiveness

The ***training effectiveness*** for each of the nine individual programs within the initiative was determined using customized instruments designed specifically for each training. The training effectiveness measure captures the initial success of the intervention with each participant and also provides indications as to the maintenance and sustainability of the intervention relative to the outputs. These anonymous instruments were provided in-person to participants following each training and recorded their experiences and impressions of training in areas including but not limited to:

- professional gains,
- understanding of strategies,
- intention to implement,

- confidence in strategies,
- appropriateness for settings,
- confidence in creating outcomes
- confidence giving and receiving support
- input on strengths and weaknesses of the training
- plans for maintenance and sustainability

PAXIS Institute can use the training effectiveness outcomes in their constant renewal and revision of training models and content. These outcomes are also useful to PAX Partners to gauge impressions, strengths, weaknesses, and needs of the teachers they support as they begin PAX GBG implementations in their own classrooms.

Maintenance

The *maintenance* of the of the PAX GBG implementation and related programming was determined through follow-up contact with participants to gauge their impression, progress, and use of their new skills and strategies three months after training. The maintenance measure captures the true use of the interventions in the field and helps to confirm the effectiveness of training and provide indications as to the sustainability of the intervention. Other areas of measurement at the 3-month benchmark include:

- Frequency of use
- Appropriateness of strategies
- Success of strategies
- Effect on discipline
- Effect on user well-being
- Integration with existing practices
- Strengths vs. Difficulties
- Use of internal and external supports

These anonymous instruments were placed online and made accessible through an emailed link based on registration information from training. The maintenance benchmark for each program also offered an opportunity to provide optional qualitative feedback via online/phone interview with scripted questions regarding their experience implementing PAX GBG and their impression of the intervention. Other areas captured in this qualitative exploration include:

- Experience initiating PAX GBG
- Effects on the classroom
- Integration with school practices
- Difficulties implementing
- Models of support
- Collaboration with faculty and administration

The maintenance measure provides the first statewide examination of continued use of PAX GBG and its related programming following initial training. This measure provides further information to PAXIS Institute for refining instruction and guidance to increase and improve implementation. It also provides PAX Partners and local officials with valuable information in regards to necessary supports for the specific needs and culture of their region as well as some early indications on prevalence and return on investment in their communities.

Sustainability

The *sustainability* of the Statewide PAX GBG implementation was determined through registration outputs from each training and their respective county or region. The sustainability measure identifies areas in the state and their supports relative to the number of teachers implementing PAX GBG. Regional program sustainability is determined through tracking the number of teachers trained both previously and within the Ohio Cures initiative along with the development of current support including internal and external PAX Partners and Strategic Planning and Development sessions. This is displayed through a concentration map revealing regions throughout the state with relatively sustainable implementation, those fit for expansion, and those in need of greater support. This information is useful for state and local funders in prescribing the most immediate needs of an area for school-based prevention and in communicating competitive preference in future opportunities. This allows officials to provide targeted support in regard to capacity, guidance, and funding.

Predictive Impact

The *predictive impact* of the programming includes implementing validated instruments to determine changes to participants and young people as a result of the intervention. The predictive impact measure captures distal indicators with a research-based foundation for predicting outcomes for those involved in the implementation. These anonymous instruments were placed online and made accessible through an emailed link based on registration information from training. Pre- and post- measures were collected in accordance with the specific protocols for each instrument. The predictive impact constructs captured within this initiative include:

- Teacher Efficacy
    o Instructional Strategies
    o Student Engagement
    o Classroom Management
- Teacher Burnout
    o Emotional Exhaustion
    o Depersonalization
    o Personal Accomplishment
- Student Social Competence
    o Prosocial Behaviors
    o Emotional Self-regulation
    o Academic Skills
- Student Strengths and Difficulties

- o Emotional Symptoms
- o Conduct Problems
- o Hyperactivity and Inattention
- o Peer Relationship Problems
- o Pro-social Behavior

Each of these constructs and their respective instruments are used throughout the fields of education and psychology to measure the impact of environments and interventions on the health and performance of participants.

The predictive impact measures allow for the unique collection of data in a large-scale effectiveness trial. By gathering a wealth of data on a number of different constructs for both teachers and students, Ohio's outcomes can be measure through the validated instruments to determine the real impact of universal prevention at scale.

Evaluation Design

This evaluation combines all of these measures in a mixed methods study by incorporating quantitative and qualitative feedback from participants regarding their experiences in training and implementing PAX GBG and its related components in the field and measuring their effects. This study consists of a number of customized and validated instruments to measure the impressions and effects of the various programs. The data and outcomes will be useful for all stakeholders in evaluating the success of the initiative as well as areas for consideration and revision for future scale-up initiatives. This will also reveal strengths and weaknesses in implementation across the state that implies replication, expansion, or further support.

4. Data Collection

Instrumentation used in data collection for this evaluation includes hard copy forms and links to online surveys and validated instruments. All hard copy data was anonymous and kept in locked storage. All online surveys were anonymous and accessible only through a secure link. Contact information was only recorded for those participants who opted into an additional interview and offered contact information. This information was known only to researchers and not identifiable or associated with any data in any other part of the study.

The *Training Effectiveness* measures consist of customized instruments that have been narrowly tailored to determine the success of each program training. These instruments appeared as hard copy pages in each participant's handouts and were collected at the conclusion of each training. All Training Effectiveness instruments were anonymous. Each measure is listed in table 1 and a sample of each instrument appears in the appendix.

Table 1: Training Effectiveness Measures

Distinct Program	Instrument	Notes
PAX GBG Summit	TESUM*	Hard Copy, Collected after Summit
PAX Strategic Planning & Development	TESPF*	Hard Copy, Collected after session
PAX GBG Initial Teacher Training	TEGBG*	Hard Copy, Collected after training
PAX Next Steps Teacher Training	TENS*	Hard Copy, Collected after training
PAX Heroes Teacher Training	TEHET*	Hard Copy, Collected after training
PAX Partner Training	TEPAR*	Hard Copy, Collected after training
PAX Partner Heroes Training	TEHEP*	Hard Copy, Collected after training
PAX Tools Training	TETLS*	Hard Copy, Collected after training
PAX Pre-service Training	TEPS*	Hard Copy, Collected after training

* Instrument customized to measure training effectiveness of program

The *Maintenance* measures consist of customized instruments that have been narrowly tailored to determine the use and success of each program as implemented. These instruments were made available to each participant via secure online link emailed to the contact information listed at registration. All Maintenance instruments were anonymous. Each measure is listed in table 2 and a sample of each instrument appears in the appendix.

Table 2: Implementation Maintenance Measures

Distinct Program	Instrument	Notes
PAX GBG Initial Teacher Training	MGBG†	Anonymous via secure online link
	MGBGQ†	Optional follow-up interview
PAX Heroes Teacher Training	MHET†	Anonymous via secure online link
	MHETQ†	Optional follow-up interview
PAX Partner Training	MPAR†	Anonymous via secure online link
	MPARQ†	Optional follow-up interview
PAX Partner Heroes Training	MHEP†	Anonymous via secure online link
	MHEPQ†	Optional follow-up interview
PAX Tools Training	MTLS†	Anonymous via secure online link
PAX Pre-service Training	MPS†	Anonymous via secure online link

† Instrument customized to measure the implementation maintenance of program

The *Sustainability* measure consists of tabulating outputs of the project and displaying them geographically to demonstrate the prevalence of PAX GBG implementations and PAX GBG support in each area across the state. These outputs combine to create a concentration map that quickly and visually indicate the relative sustainability of PAX GBG implementation in each area. This map may be used to quickly diagnose sustainability needs in each region including the need for greater support or the relative preparation for implementation expansion. The outputs used in creating this map are shown in table 3.

Table 3: Sustainability

Outputs	Function	Considerations
Teachers Trained in PAX GBG	Implementers	Nearly 3,400 teachers trained before the project
PAX Strategic Planning & Development	Sustainability / Support	Scope of regional plans may not reach all teachers
Internal PAX Partners Trained	Sustainability / Support	Limited to the school building they operate in

External PAX Partners Trained	Sustainability / Support	Capacity limited by workload and distance

The ***Predictive Impact*** measures consist of research-based and validated instruments to determine the impact of the intervention on long-term outcomes. The pre-test for these instruments was made available to each participant via secure online link upon registration. The post-test was made available via secure online link emailed to the contact information listed at registration. All Predictive Impact instruments were anonymous. For instruments recording student information, teachers selected random students meeting the requirements of the research protocol of the instruments and did not list student-identifying information. Each measure is listed in table 4 and a sample of each instrument appears in the appendix.

Table 4: Predictive Impact Measures

Distinct Program	Instrument	Notes
PAX GBG Teacher Training – August Delivery	Teachers Sense of Efficacy Scale	Anonymous via secure online link at registration and again January 2019
PAX GBG Teacher Training – September Delivery	Maslach Burnout Inventory	Anonymous via secure online link at registration and again January 2019
	Social Competence Scale - Teacher	Anonymous via hard copy distributed at training and again via secure online link in January 2019
PAX GBG Teacher Training – October and Additional Delivery	Teachers Sense of Efficacy Scale	Anonymous via secure online link at registration and again April 2019
	Strengths and Difficulties Questionnaire	
PAX Next Steps Training	Teachers Sense of Efficacy Scale	Anonymous via secure online link at registration and hard copy collected after training
PAX Heroes Teacher Training – December/January Delivery	Strengths and Difficulties Questionnaire	Anonymous via secure online link at registration and again April 2019
	Social Competence Scale - Teacher	
PAX Heroes Teacher Training – February March Delivery	Teachers Sense of Efficacy Scale	Anonymous via secure online link at registration and hard copy collected after training

5. Findings

Outputs

Training Effectiveness

PAX SUMMIT

The PAX GBG Summit was held in July 2018 in Columbus, Ohio. This event allowed over xxx stakeholders to meet with OMHAS and PAXIS Institute officials and gather information about upcoming PAX Training available statewide as a part of the Ohio Cures initiative. Community leaders and stakeholders also networked and collaborated with peers from across the state to develop plans for implementing PAX GBG in their region. This event provided for professional development and information sessions for numerous types of stakeholders involved with PAX GBG. The event also provided practical strategies for school officials and PAX Partners for implementing tiered models of PAX Partner support within schools to increase local fidelity and sustainability of implementations. The summit provided strategic planning and development sessions promoting the integration of PAX GBG plans into local and regional strategic plans in order to increase the sustainability of implementations at the conclusion of the project. This event was also used to increase the pool of Ohio-based training staff and update current trainers on new components of 2018-2109 trainings through PAX Training inductions. This allowed PAXIS Institute to re-align and update statewide training for localized interests such as trauma and opioid use to increase the fidelity of training.

The following data was compiled from 109 voluntary respondents who provided quantitative and qualitative feedback at the conclusion of the summit. To measure the effectiveness of this summit, a 9-question, multiple choice survey was developed to collect data regarding participants' demographics, preferences, impressions, and recommendations following the summit. A copy of this measure appears in appendix a.

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The summit respondents came from a number of sectors including school districts, MHRB/ADAMHS Boards, Educational Service Centers, State Support Teams/Departments of Education, Department of Youth Services, and a large number of attendees marked "other." Respondents who responded "other" were made up of primarily:

- Hospital therapists and clinicians
- Mental health agency therapists and clinicians
- Fulltime PAX Partners

- Preventionists
- Youth Development counselors
- Also listed were: ADD Therapist, Dept of family and children, Juvenile detention, ECE Director, Preschool teacher
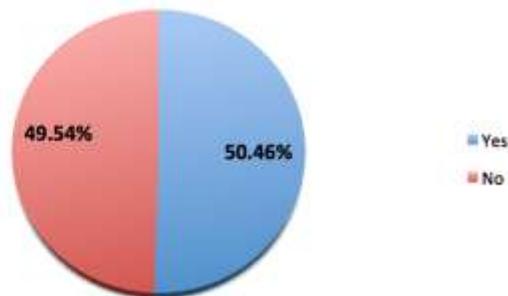
Figure 1.1 below shows the employment make-up of the summit respondents.
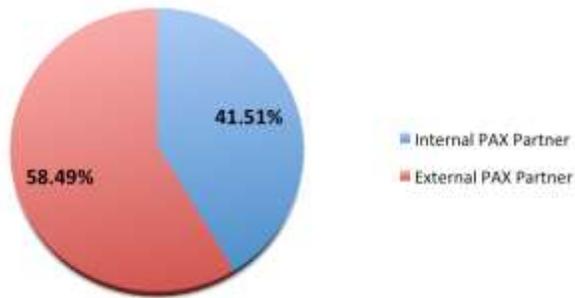
Figure 1.1
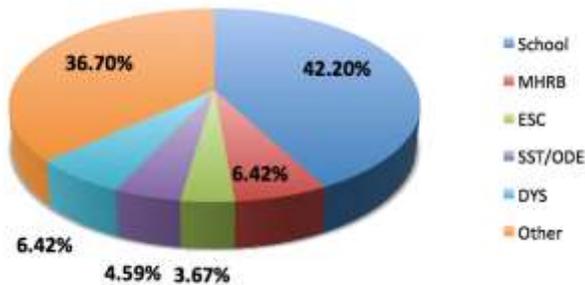
About half of the respondents (n=55) had previously been trained as PAX Partners. These PAX Partners come from a number of different sectors. Figure 1.2 below shows the make-up of respondents trained as PAX Partners.

Figure 1.2 Partner Training

Of the 55 PAX Partners who responded, a majority (n=31) viewed themselves as external PAX Partners. Figure 1.3 below shows the make-up of PAX Partner respondents.
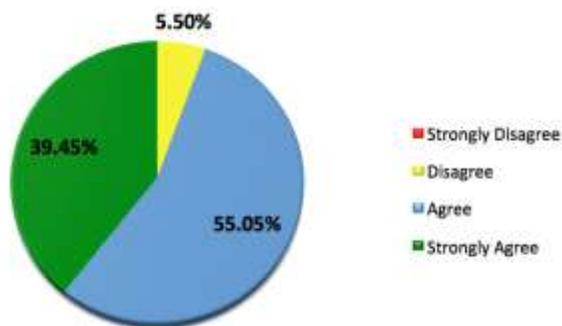
Figure 1.3 Partners

Respondents were asked to rate their level of agreement with the statement, *I gained a better understanding* of how a PAX Implementation works. Nearly 93% (n=101) marked either *Agree* or *Strongly Agree*. Figure 1.4 below shows the make-up of *understanding*.

Figure 1.4 Understanding
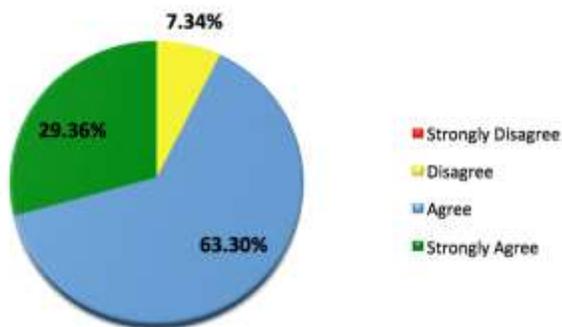
Respondents were asked to rate their level of agreement with the statement, *I gained information that is relevant to my **role** or the role of my agency.* Nearly 96% (n=103) marked either *Agree* or *Strongly Agree*. Figure 1.5 below shows the make-up of *role*.
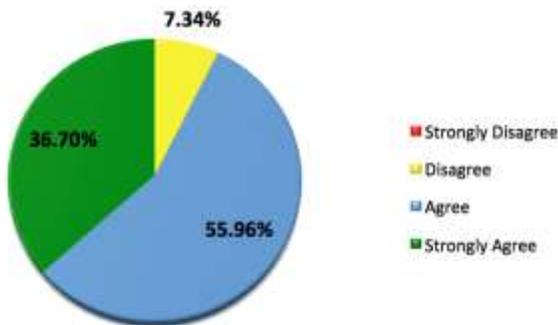
Figure 1.5 Role

Respondents were asked to rate their level of agreement with the statement, *I feel better **equipped** to support the PAX implementation in my region*. Nearly 89% (n=97) marked either *Agree* or *Strongly Agree*. Figure 1.6 below shows the make-up of *equipped*.
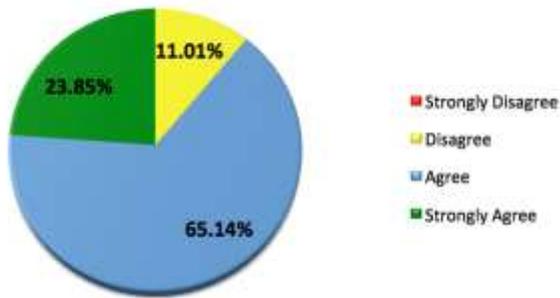
Figure 1.6 Equipped
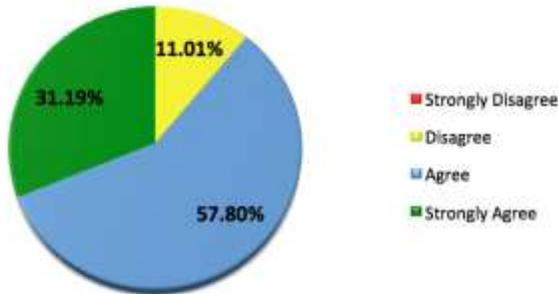
Respondents were asked to rate their level of agreement with the statement, *I gained practical **tools** to refine our PAX implementation immediately*. Nearly 93% (n=101) marked either *Agree* or *Strongly Agree*. Figure 1.7 below shows the make up of *tools*.

Figure 1.7 Tools

Respondents were asked to rate their level of agreement with the statement, *I am more prepared to contribute to plans for the **sustainability** of our PAX*. Nearly 89% (n=97) marked either *Agree* or *Strongly Agree*. Figure 1.8 below shows the make up of *sustainability*.

Figure 1.8 Sustainability

Respondents were asked to rate their level of agreement with the statement, *I have confidence that we can implement and maintain our PAX implementation*. Nearly 93% (n=101) marked either *Agree* or *Strongly Agree*. Figure 1.9 below shows the make up of *implementation*.

Figure 1.9 Implementation
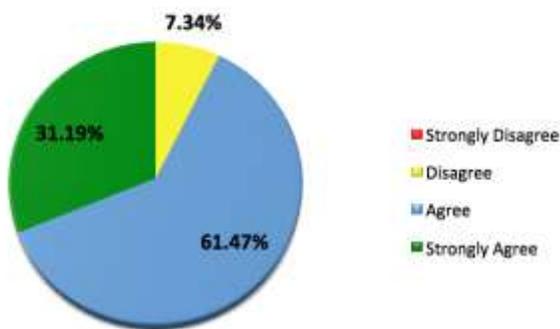
Respondents were asked qualitatively about *the most beneficial session* that they attended throughout the summit. Themes emerged from the responses. **PAX and PBIS** was mentioned most often followed by **Meaningful Roles. PAX in Preschool, Trauma-informed Care**, and **PAX and Academics** were also mentioned multiple times. Additional items listed more than once included: PAX for Older Children, Kernels as Universal Prevention, Start of School, High-risk Youth, Attendance, Granny's Wacky Prizes, PAX Up! App, Research Foundations, Strategic Planning, Early Intervention, Punishment, and Welcome to PAX. Figure 1.10 below shows the distribution of sessions most mentioned as often beneficial.

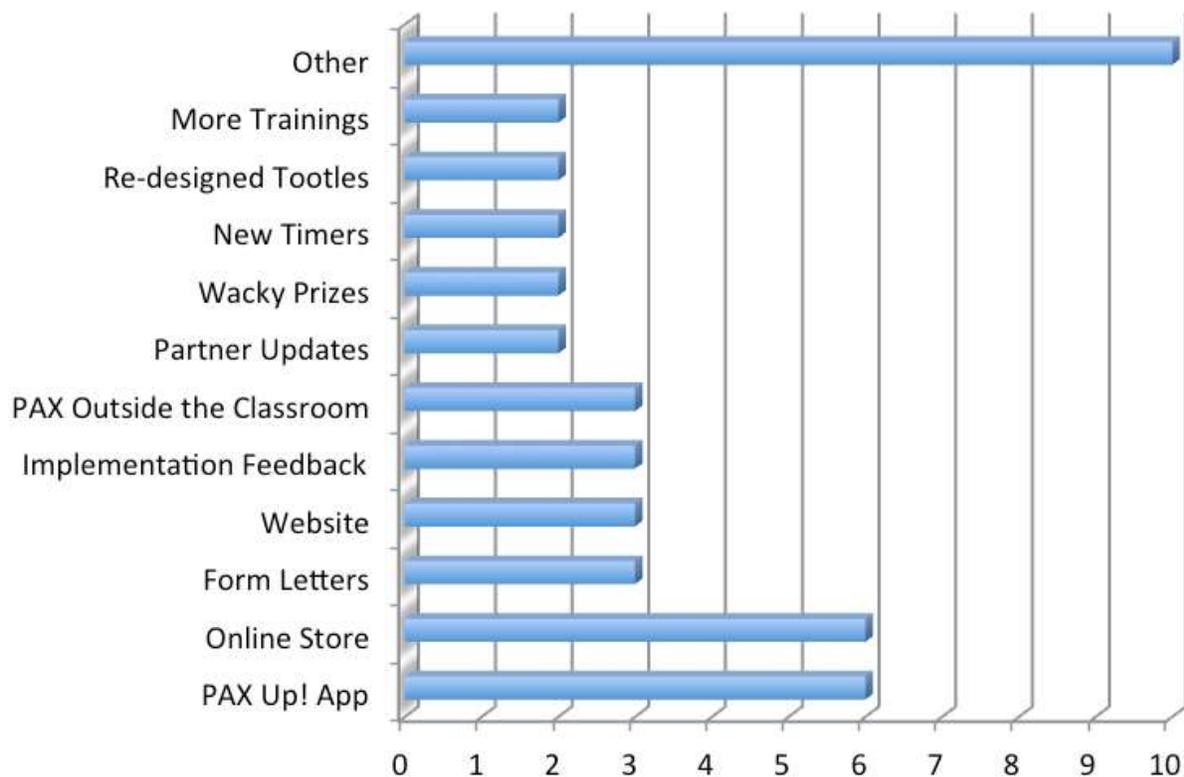**Figure 1.10 Most beneficial session**
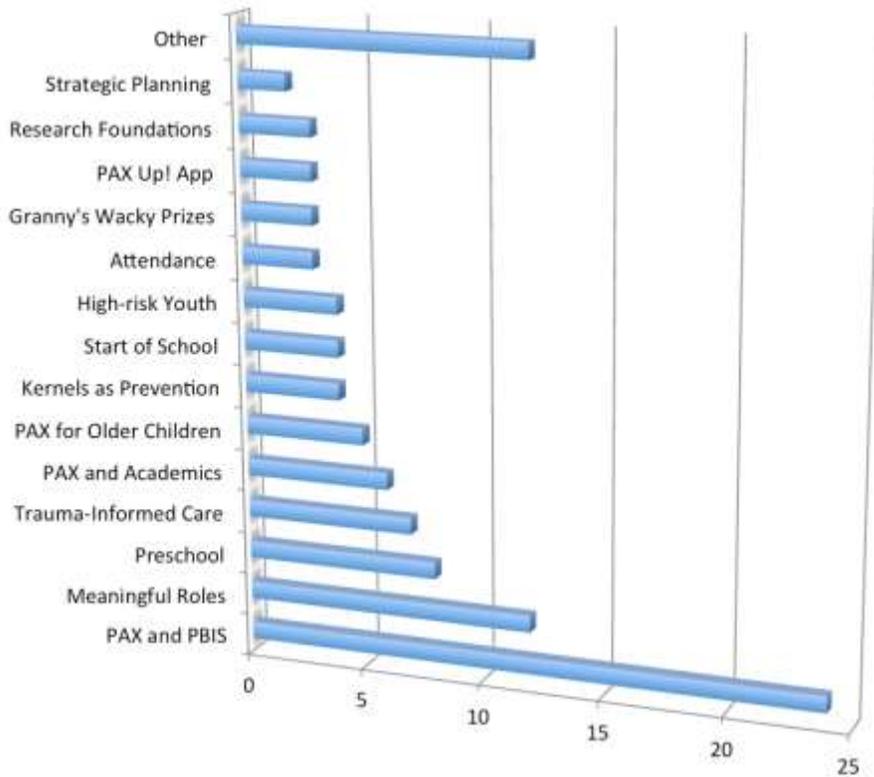
Respondents were asked qualitatively about sessions that they would like to see covered next year. Themes emerged from the responses. **PAX in the Home and Community** was most often mentioned followed by **Communicating with Stakeholders, Implementation Modeling and Overview.** Other session ideas mentioned multiple times included **Developing Buy-in, Implementation Strategies, PAX Partner Updates, Tier 3 Strategies, Getting Started in the Classroom, Data Usage, PAX for Juvenile Detention, PAX Teacher Refreshers,** and **Troubleshooting.** Figure 1.11 below shows the distribution of future session recommendations.

Figure 1.11 Future sessions
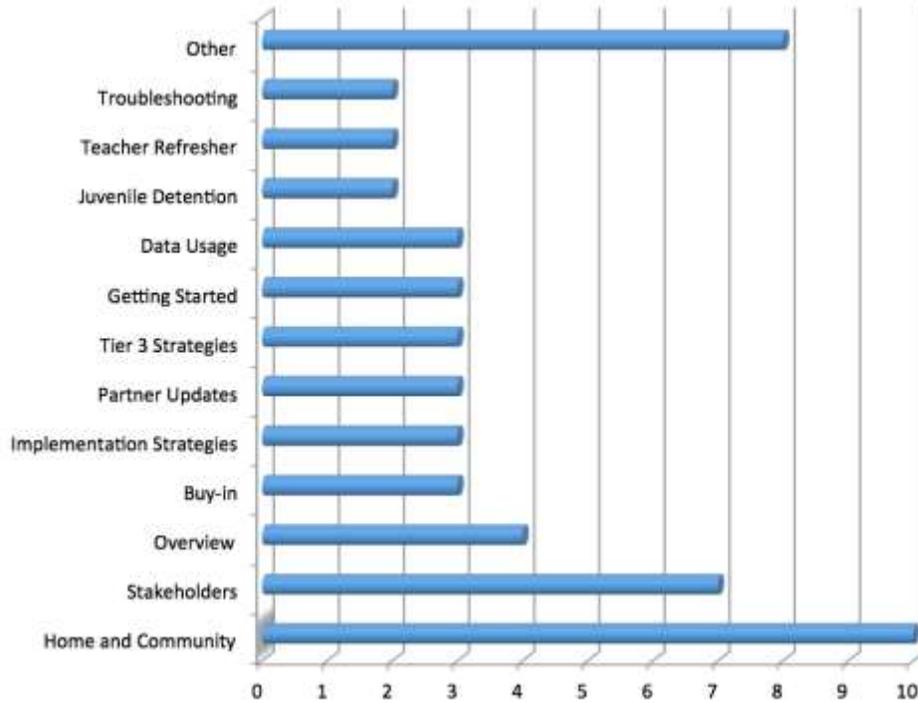
Respondents were asked qualitatively about products and services they would like PAXIS to add or continue to revise and update. Themes emerged from the responses. Continued revision of the **PAX Up! App** and the development of an **Online Store** were mentioned most often followed by the development of Form Letters, continued revision of the Website, Implementation Follow-up, and PAX Outside the Classroom. Figure 1.12 below shows the distribution of requested additions and revisions.

Figure 1.12 Requests

Bar chart with the following categories and approximate values:

Category	Value
Other	10
More Trainings	2
Re-designed Tootles	2
New Timers	2
Wacky Prizes	2
Partner Updates	2
PAX Outside the Classroom	3
Implementation Feedback	3
Website	3
Form Letters	3
Online Store	6
PAX Up! App	6

PAX PARTNER TRAINING

PAX Partner training provides up to 20 internal or external school personnel who have previously been trained in PAX GBG with the skills to support a new or existing PAX GBG implementation. This 3-day training features one day of online content instruction followed by two days of in-person instruction with a certified PAX Trainer. This instruction and the PAX Partner Manual provide PAX Partners with the skills to support teachers in initiating and maintaining a PAX GBG implementation in their classroom by promoting the step-by-step integration of PAX strategies with fidelity into their classroom procedures. Partners also receive instruction on using the PAX Up! App for data collection and analysis as well as guiding classroom implementations. This training also includes strategies for troubleshooting and additional assistance for teachers with students who continue to struggle. PAX Partners learn expert coaching and support skills in order to effectively guide teachers as they improve their implementation. Partners also learn fidelity monitoring and use of data to alter implementations and collaborate with school and district administration to generate the best outcomes possible from the PAX GBG implementation.

The following data was compiled from 116 voluntary respondents who provided feedback at the conclusion of their PAX Partner Training to help determine its effectiveness. To measure the effectiveness of this training, a 10-question Likert-scale was developed to determine participants' confidence in select competencies vital to providing PAX Partner support immediately following

the training. A score of 1=Not confident and a score of 10=Very confident. A copy of this measure appears in appendix f.

<center>***</center>

Participants were asked to rate their level of confidence in the statement, *I can develop **collaborative** relationships with teachers and administrators*. The average score for this response was 8.9. Figure 6.1 below shows the rest of the descriptive statistics for this item.

Figure 6.1 Collaborative

Q3 Average	8.9
Median	9
Mode	9
Max	10
Min	2
Range	8

Participants were asked to rate their level of confidence in the statement, *I have skills to support teachers to **implement** PAX GBG in their classrooms*. The average score for this response was 8.6. Figure 6.2 below shows the rest of the descriptive statistics for this item.

Figure 6.2 Implement

Q4 Average	8.6
Median	9
Mode	10
Max	10
Min	2
Range	8

Participants were asked to rate their level of confidence in the statement, *I can promote the use of PAX GBG strategies for **Tier 2** and Tier 3 use*. The average score for this response was 7.8. Figure 6.3 below shows the rest of the descriptive statistics for this item.

Figure 6.3 Tier 2

Q5 Average	7.8
Median	8
Mode	9
Max	10
Min	2
Range	8

Participants were asked to rate their level of confidence in the statement, *I understand how to collect **data** to provide feedback to identify strengths and continued challenges in implementation*. The average score for this response was 8.8. Figure 6.4 below shows the rest of the descriptive statistics for this item.

Figure 6.4 Data

Q6 Average	8.8
Median	9
Mode	10
Max	10
Min	2
Range	8

Participants were asked to rate their level of confidence in the statement, *I can use data I collected to **report** outcomes*. The average score for this response was 8.6. Figure 6.5 below shows the rest of the descriptive statistics for this item.

Figure 6.5 Report

Q7 Average	8.6
Median	9
Mode	9
Max	10
Min	2
Range	8

Participants were asked to rate their level of confidence in the statement, *I have strategies to **troubleshoot** challenges in classroom implementation*. The average score for this response was 8.6. Figure 6.6 below shows the rest of the descriptive statistics for this item.

Figure 6.6 Troubleshoot

Q8 Average	8.6
Median	9
Mode	9
Max	10
Min	5
Range	5

Participants were asked to rate their level of confidence in the statement, *I have strategies to support PAX **outside** the classroom*. The average score for this response was 8.5. Figure 6.7 below shows the rest of the descriptive statistics for this item.

Figure 6.7 Outside

Q9 Average	8.5
Median	9
Mode	9
Max	10
Min	3
Range	7

Participants were asked to rate how helpful the online modules were. 1=Not helpful, 10=Very helpful. The average score for this response was 8.3. Figure 6.8 below shows the rest of the descriptive statistics for this item.

Figure 6.8 Online

Q10 Average	8.3
Median	9
Mode	10
Max	10
Min	1
Range	9

PAX Heroes Partner Training

PAX Heroes Teacher Training provides up to 40 teachers who have previously been trained in PAX GBG with new variations and strategies for students who continue to demonstrate behavioral difficulties. This 1-day, in-person training delivers explicit instruction in using the PAX Heroes Manual to identify areas of student difficulty and refining PAX GBG implementation to support those needs. PAX Heroes Teacher Training also provides instruction in analyzing activities and areas of difficulty for students and selecting targeted Tier 2 and Tier 3 strategies to improve their behavioral and academic performance. Teachers also receive training on utilizing the PAX Up! App for implementing and monitoring their use of PAX GBG in their classroom. This training also provides explicit instruction in behavior observation and analysis useful in identifying useful strategies in and out of the classroom. PAX Heroes Teacher Training provides instruction in integrating PAX Heroes assessment, analysis, and strategies with existing clinical assistance and school-wide procedures.

The following data was compiled from 86 voluntary respondents who provided quantitative and qualitative feedback at the conclusion of their PAX Heroes Partner Training to determine its effectiveness. To measure the effectiveness of this summit, an 11-question, multiple choice survey was developed to determine the clarity and participants confidence in select competencies vital to providing PAX Heroes Partner Support following the training. A copy of this measure appears in appendix g.

<div align="center">***</div>

Participants were asked *To what extent is your school currently implementing **PBIS**?* 64% (n=55) marked "Some PBIS." Figure 7.1 below shows the make-up of responses to PBIS.

1. Not currently using PBIS

2. Some PBIS principles

3. Extensive PBIS Implementation

Figure 7.1 PBIS

| PBIS Implementation	Number of Responses	Percentage of Responses
No PBIS	6	7%
Some PBIS	55	64%
Extensive PBIS	25	29%
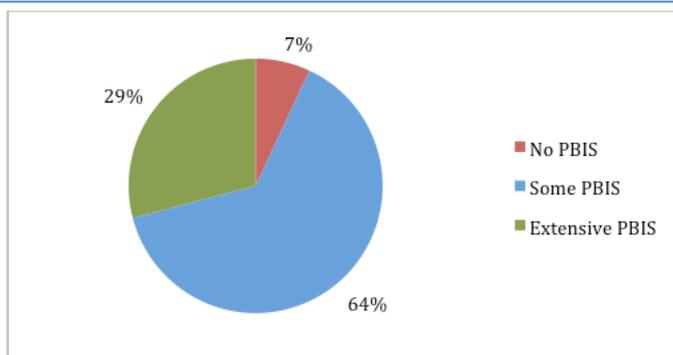
Participants were asked *Consider your school's current policies, procedures, and initiatives (like PBIS) regarding behavior. How **consistent** are the PAX Heroes strategies presented today with those efforts?* 46% (n=40) marked "Somewhat consistent. Some of the PAX Heroes strategies are in line with current schoolwide behavioral efforts. Figure 7.2 below shows the make-up of responses to **Consistent.**

1. Not consistent. PAX Heroes strategies are in direct conflict with current schoolwide behavioral efforts.

2. Somewhat consistent. Some of the PAX Heroes strategies are in line with current schoolwide behavioral efforts.

3. Very consistent. Nearly all PAX Heroes strategies are in line with current schoolwide behavioral efforts.

Figure 7.2 Consistent

| Consistent Strategies	Number of Responses	Percentage of Responses
Not consistent	11	13%
Somewhat consistent	40	46%
Very consistent	35	41%
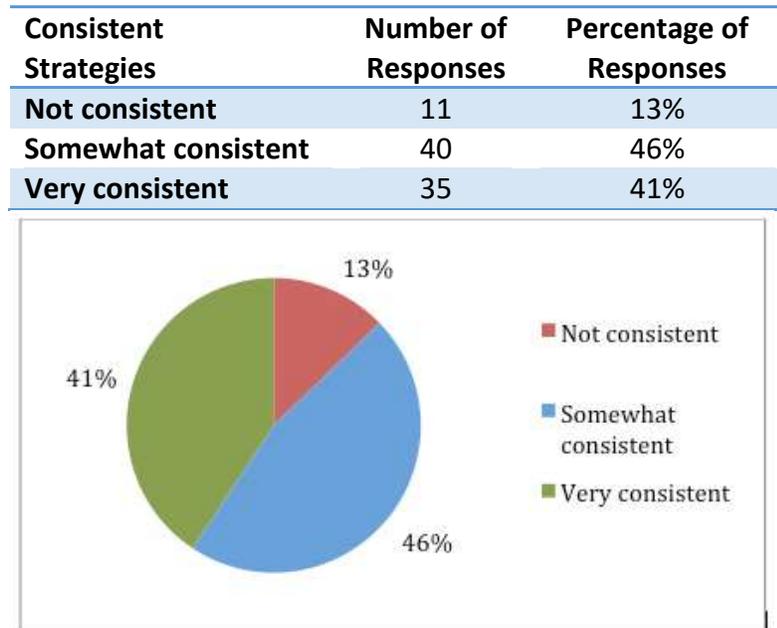
Participants were asked *How would you rate your level of **understanding** of the strategies presented today?* 57% (n=49) marked "Clear. I understand how to implement most of the strategies presented today. Figure 7.3 below shows the make-up of responses to **Understanding.**

1. Unclear. I do not understand how to implement the strategies presented today.

2. Somewhat clear. I understand how to implement several of the strategies presented today.

3. Clear. I understand how to implement most of the strategies presented today.

4. Very Clear. I understand how to implement all the strategies presented today.

Figure 7.3 Understanding

| Understanding of Strategies	Number of Responses	Percentage of Responses
Somewhat clear	3	3.5%
Clear	49	57%
Very clear	34	39.5%
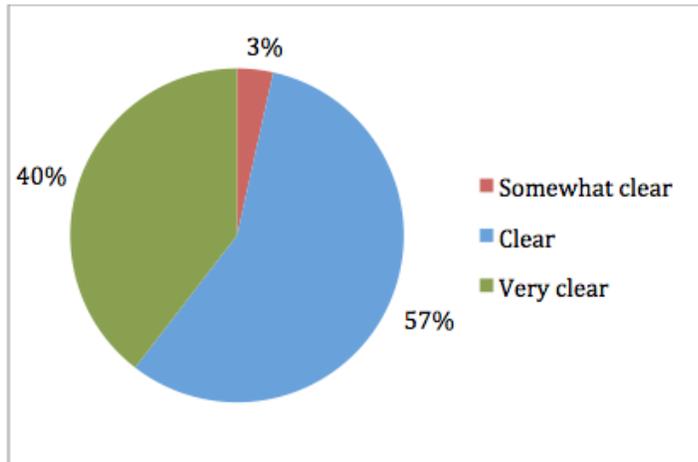
Participants were asked *How would you rate your level of confidence that the strategies presented today will be **effective** with your teachers and students?* 51% (n=44) marked "Very confident. Most of the strategies would likely work with my teachers and students." Figure 7.4 below shows the make-up of responses to **Effective.**

1. Not confident. The strategies would not likely work with my teachers and students.

2. Somewhat confident. Several of the strategies would likely work with my teachers and students.

3. Very confident. Most of the strategies would likely work with my teachers and students.

Figure 7.4 Effective

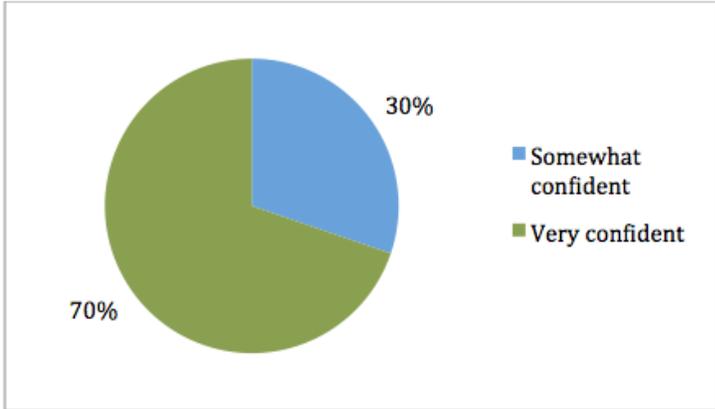| Confidence of Effectiveness	Number of Responses	Percentage of Responses
Not Confident	0	0%
Somewhat confident	42	49%
Very confident	44	51%
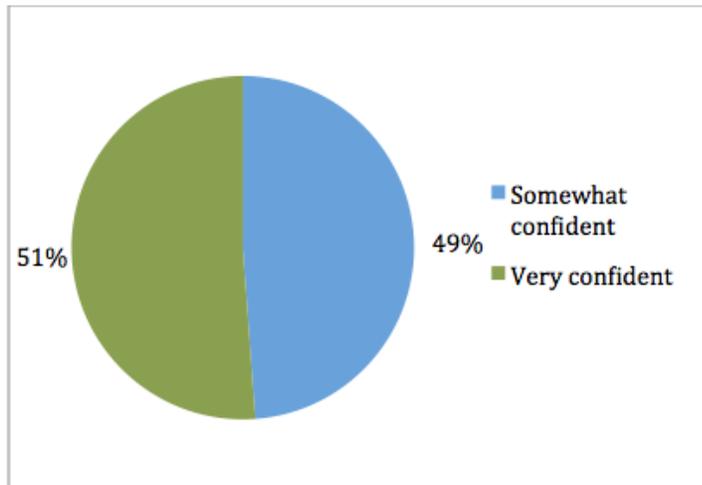
Participants were asked *How would you rate your level of confidence in accurately identifying students with the **Hero Obstacles** as identified in the training?* 70% (n=60) marked "Very confident. I am certain I could accurately identify student sin my classroom in the challenge areas." Figure 7.5 below shows the make-up of responses to **Obstacles.**

1. <u>Not confident.</u> I do not think I could accurately identify students in my classroom in the challenge areas.

2. <u>Somewhat confident.</u> I may be able to accurately identify students in my classroom in the challenge areas.

3. <u>Very confident.</u> I am certain I could accurately identify students in my classroom in the challenge areas.

Figure 7.5 Obstacles

| Confidence of Identification	Number of Responses	Percentage of Responses
Not Confident	0	0%
Somewhat confident	26	30%
Very confident	60	70%

Participants were asked *How would you rate your level of confidence in executing the behavioral* **observation** *and* **analysis** *necessary to develop a behavior plan with effective PAX Heroes strategies?* 69% (n=59) marked "Very confident. I am certain I could carry out the observation and analysis." Figure 7.6 below shows the make-up of responses to **Observation.**

1. <u>Not confident.</u> I do not think I could carry out the observation and analysis.

2. <u>Somewhat confident.</u> I may be able to carry out the observation and analysis.

3. <u>Very confident.</u> I am certain I could carry out the observation and analysis.

Figure 7.6 Observation

| Confidence of Observation	Number of Responses	Percentage of Responses
Not confident	1	1%
Somewhat confident	26	30%
Very confident	59	69%
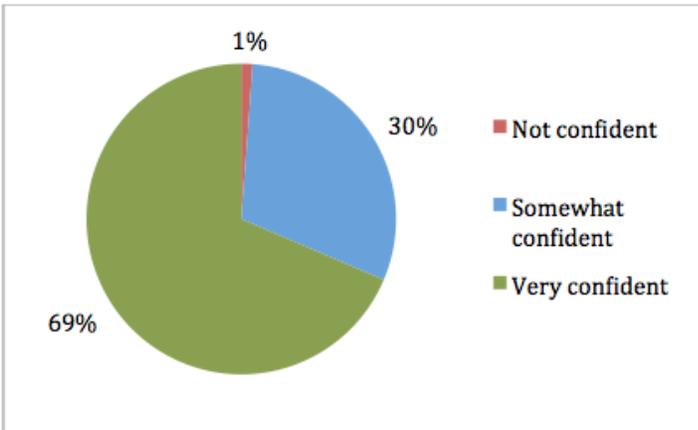
Participants were asked *How would you rate your level of confidence in supporting a teacher implementing PAX Heroes strategies for individual students who struggle behaviorally – based on today's training?* 65% (n=56) marked "Very confident. I can support a teacher implementing many new strategies based on today's training." Figure 7.7 below shows the make-up of responses to **Implementing.**

1. Not confident. I cannot support a teacher implementing any new strategies based on today's training.

2. Somewhat confident. I can support a teacher implementing a few new strategies based on today's training.

3. Very confident. I can support a teacher implementing many new strategies based on today's training.

Figure 7.7 Implementing

Confidence of Implementation	Number of Responses	Percentage of Responses
Not confident	0	0%
Somewhat confident	30	35%
Very confident	56	65%
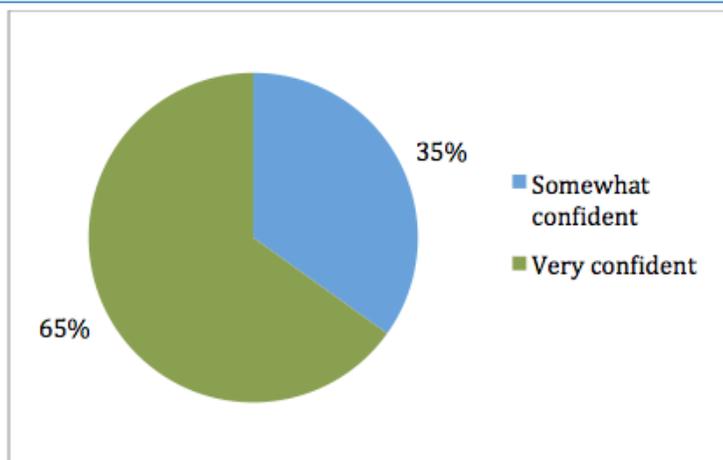
Maintenance

Sustainability

Predictive Impact

6. Dissemination

7. Appendices

a. TESUM
b. TESPF
c. TEGBG
d. TENS
e. TEHET
f. TEPAR
g. TEHEP
h. TETLS
i. TEPS
j. MGBG
k. MGBGQ
l. MHET
m. MHETQ
n. MPAR
o. MPARQ
p. MHEP
q. MHEPQ
r. MTLS
s. MPS
t. Teachers Sense of Efficacy Scale
u. Strengths and Difficulties Questionnaire
v. Maslach Burnout Inventory
w. Social Competence Scale - Teacher

8. References

Aos, S., S. Lee, E. Drake, A. Pennucci, T. Klima, M. Miller, L. Anderson, J. Mayfield and M. Burley (2013) "Good Behavior Game, Return on Investment: Evidence-Based Options to Improve Statewide Outcomes." 8.

Bradshaw, C. P., J. H. Zmuda, S. Kellam and N. Ialongo (2009). "Longitudinal Impact of Two Universal Preventive Interventions in First Grade on Educational Outcomes in High School." Journal of Educational Psychology **101**(4): 926-937.

Furr-Holden, C. D., N. S. Ialongo, J. C. Anthony, H. Petras and S. G. Kellam (2004). "Developmentally inspired drug prevention: middle school outcomes in a school-based randomized prevention trial." Drug & Alcohol Dependence **73**(2): 149-158.

Ghaderi, A., M. Johansson and P. Enebrink (2017). Pilotstudie av PAX i skolan: En kulturanpassad version av PAX Good Behavior Game. Stockholm, Sweden, Karolinska Institutet: 33.

Huber, M., Fruth, J.D., Avila-John, A. & Ramirez, E. (2016). Teacher self-efficacy and student outcomes:
A transactional approach to prevention. *Journal of Education and Human Development*. 5(1).

Jiang, D., R. Santos, T. Mayer and L. Boyd (2015). Program Evaluation with Multilevel and Multivariate Longitudinal Outcomes. International Meeting of the Psychometric Society, Beijing, China, International Meeting of the Psychometric Society.

Kellam, S., C. H. Brown, J. Poduska, N. Ialongo, W. Wang, P. Toyinbo, H. Petras, C. Ford, A. Windham and H. C. Wilcox (2008). "Effects of a universal classroom behavior management program in first and second grades on young adult behavioral, psychiatric, and social outcomes,." Drug & Alcohol Dependence(Special Issue): 24.

Kellam, S. G., A. C. Mackenzie, C. H. Brown, J. M. Poduska, W. Wang, H. Petras and H. C. Wilcox (2011). "The good behavior game and the future of prevention and treatment." Addict Sci Clin Pract **6**(1): 73-84.

Wilson, D. S., S. C. Hayes, A. Biglan and D. D. Embry (2014). "Evolving the Future: Toward a Science of Intentional Change." Brain and Behavioral Sciences **37**(4): 395-416.