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PENNSYLVANIA ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT

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CALL FOR SUBMISSIONS

Pennsylvania Educational Leadership (PEL) is an open-access, peer-reviewed journal published twice per year and accepts manuscripts year-round. Topics address the interests and concerns of Pennsylvania educators at all levels. We welcome a wide variety of manuscripts including (but not limited to) single study inquiries, qualitative and quantitative research, theoretical and conceptual pieces, historical analyses, literature reviews, action research, and first-person narratives. Beginning spring 2014, the journal began including a Practitioner's Page highlighting the voices, thoughts, and opinions of educators in the field. Submissions for the Practitioners Page can take a variety of formats including (but not limited to) book reviews, policy reviews, and critical reflections on current educational issues and trends. Individuals choosing to submit to the Practitioners Page should follow the same submission guidelines as those submitting manuscripts with the exception of the Abstract. Authors must also indicate that the submission is intended for the Practitioners Page on the cover sheet.

Manuscripts should be emailed to Editor Mary Wolf (PennWest California University) at wolf@pennwest.edu for initial review. Submissions evaluated as appropriate for review are then sent to three readers for blind review. Manuscripts should follow the guidelines set forth by the American Psychological Association.

Before submitting a manuscript to PEL, please consider the following guidelines carefully:

- Your manuscript should be submitted as a single Word document and include a cover sheet, abstract, body/text, tables, charts, and figures (if applicable), and references list. If possible, please include the Digital Object Identifiers (DOI) for all electronic sources. The manuscript should be typed in 12-point font, Times New Roman, with one-inch margins. The text should be double-spaced.

- The cover sheet should include the title and author information, including contact information for the primary author, including mailing address, email address, and phone number. On this page, the author should indicate that the manuscript has not been submitted elsewhere for publication. If the manuscript involves the use of human subjects, the author should indicate whether Institutional Review Board approval has been granted unless deemed exempt.

- The second page of the submitted manuscript is the abstract page. The abstract should be 150 words or fewer. The abstract should include the purpose of the manuscript and essential findings or discussion points.

- The author(s) should remove any references that might be self-identifying from the body of the text to ensure blind review of the manuscript.

- The references page will follow the body of the text and any tables, charts, or figures. Please be sure to check that all in-text citations match references in the list and that the list is properly formatted using APA guidelines. Please include the DOI for electronic sources.

- **The deadline for the spring/summer 2023 edition is February 15, 2023.**
  Questions regarding a possible submission, submissions under review, or submissions requiring revision can be directed to Mary Wolf (Editor) at wolf@pennwest.edu.

PASCD RESEARCH AND PUBLICATION AWARD SPOTLIGHT

Dr. Carol Watson received the 2021 PASCD Outstanding Research and Publication Award and was honored at the Annual Conference in March 2022. The prestigious award is presented to a Pennsylvania ASCD member who has significantly impacted education through research and publication. Selection is based on the research design, conceptual framework, format, and publication.

Dr. Watson's research focused on teachers' perceptions of an issue of diversity. As student populations across the country become increasingly diverse (ethnically, socio-economically, linguistically, and culturally), significant adjustments in both cultural competence and culturally relevant practice are needed. She investigated teacher perceptions of the changing population demographics of one school district and their potential impact on equitable student learning.

Conducted through both quantitative and qualitative methods, this study utilized a survey to examine perceptions of faculty, administration and support staff in a K-12 school district. Findings indicated educators in the participant district hold diametrically opposed attitudes toward changing population demographics, as well as a significant cultural disconnect between some educators and the rapidly diversifying student/parent population. While all participants reflect awareness of both a growing and diversifying student population, attitudes toward this shift are stratified, ranging from frustration and annoyance to concern and call to action.

Dr. Watson is a Professor of Education at Kutztown University. She received her Ph.D. from Virginia Tech in Curriculum and Instruction with a focus on Literacy and Diversity. Her interest in teaching diverse populations (both low SES and ethnic diversity) grew out of her varied experiences as a classroom teacher early in her career. She did a Fulbright-Hayes Scholarship in Malawi, Africa, and published a chapter in a book based on the philosophies of Frederick Douglass.

She has been recognized through numerous awards, including UGRC (Undergraduate Research Creativity) Faculty Mentorship Award, Teacher Educator of the Year, and Academic Advisor of the Year. Dr. Watson is the current president of PA NAME (PA National Association for Multicultural Education). In addition to her publication in the *PEL* journal, she was recently published in *Journal of Research in Education* and *Betwixt and Between: Education for Young Adolescents.*

Watson, C. E. (2021). Implications of a diverse population dynamic in a historically homogeneous locality. *Pennsylvania Educational Leadership, 40*(1), 5-25.

NOMINATE A PASCD MEMBER FOR THE
2023 OUTSTANDING RESEARCH AND PUBLICATION AWARD

The Outstanding Research and Publication Award is presented to Pennsylvania ASCD member who has researched and published within the past two years. The person being nominated shall submit the published article, book, book chapter, or research report with the application form. Submitted documentation will be reviewed on the basis of design, conceptual framework, format, and publication. The award application may be found at https://www.pascd.org/awards.

LETTER FROM THE EDITOR

The PEL publishes research and best practices based on the great work of our educators across the Commonwealth. We enjoy celebrating and sharing the knowledge and research interests of our member authors.

This edition highlights 6 research and practitioner's articles ranging from best classroom practices to higher education recommendations.

In the first research article, Michael Ladick examined the gap in literature on the topic of curriculum evaluation by researching how little and how often curriculum evaluation has been referenced in the literature over the past 10 years. His results will surprise you!

In the second article, Nathan Reed focuses on phonological awareness in students with autism. His research on using Verbal behavior (VB) transfer procedures indicate positive outcomes for students.

Nicole Reddig authored the final research article where teacher retention through a trauma-informed lens is the focus area of research. The study investigated the influence of a grant program instituted to help teachers decrease trauma induced stress and as a result, lower turnover. Although decreased stress could not be attributed to the grant activities, the authors provide recommendations for targeting stress.

The Practitioner's section begins with a continuation of the teacher turnover theme, where author Andrew Hoffert expresses the implications of the changing educational landscape and how it relates to recruiting and retaining teachers. He provides examples of ways to think outside the box in order to attract educators and detract them from other more attractive careers.

A focus on higher education admission practices is presented by author Amml Hussein. She discusses landmark cases and their impact on understanding the advantages of creating meaningful interactions across racial backgrounds.

In the final article, Nancy Morris examines the process of conducting a research project with her college level students. They conducted an interview analysis project to learn how the pandemic impacted middle and high school students in their field experience placement. The research is shared with readers.

There are so many wonderful practices and programs in place within your educational institutions that could be the basis of a research study! If you have current research to share, please consider submitting by **February 15** for our next edition.

Thank you to our dedicated peer reviewers listed in the acknowledgments who volunteered their expertise and time in reviewing the manuscripts.

Mary A. Wolf

Editor of the 2022 PEL Journal

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A Systematic Review Gone Wrong: An Unanticipated Exploration of Curricular Evaluation Literature

Michael Ladick, Ph.D.
Crystal Dail Rose, Ph.D.
Rachel E. Herny

ABSTRACT

Curriculum engineering is composed of three specific phases; planning, implementation, and evaluation. Originally grounded under the notion that these curricular engineering processes would be equitably advocated for across the research literature, the authors intended to conduct a qualitative meta-analysis of peer-reviewed publications specifically on curricular evaluation regarding K-12 schools across the United States. Once the authors' expectations were unfounded, the investigation evolved into a systematic methodology using the Publish or Perish tool to uncover a gap in the literature on curriculum evaluation in order to answer the question: Within the top cited articles over the past 10 years, how often has curriculum evaluation been referenced? This systematic review examines the educational irregularities as it pertains to relevant curriculum evaluation literature throughout the last decade (2012-2022). Authors conclude with recommendations for future teachers and researchers interested in advancing the field of curriculum evaluation.

INTRODUCTION

Within the field of education, the curriculum exists as a fascinating enigma. Foundationally, the curriculum can be thought of as a document, system, or field of study (Beauchamp, 1968). Within the curriculum system, decisions are made and actions about the curriculum are engineered through three different stages; planning, implementation, and evaluation (Beauchamp, 1981). It is of note that the authors understand there are a plethora of contemporary curricular theorists whose works add to the curriculum commentary (Ashbee, 2021; Ellis, 2014; Null, 2016; Tanner & Tanner, 2007). Conversely, the value of Beauchamp's (1981) position is clear by stating that "curriculum engineering consists of all the processes necessary to make a curriculum system functional in schools" (p. 142) whilst plainly conceptualizing the curricular system of design, implementation, and evaluation as a reliable mode to not only operationalize the curriculum, but also develop and communicate scholarship amongst all interested parties.

When conceptualized, and compartmentalized, within a curricular system the design and implementation stages begin the foundation for which all learning can be derived as adaptations, accommodations, and instructional pathways are formulated and applied (Beauchamp, 1981; Mulenga, 2018; Porter et al., 2011; Porter et al., 2015). As a continuous segment of the curriculum engineering process, curriculum evaluation serves as a checkpoint within each of the six stages of curricular development i.e. determining general aims, planning, tryout, field trials, implementation, quality control (Lewy, 1977, p. 15). Within each stage of the curriculum development, the evaluation process does not relate to the assessments generated to gauge student understanding, and instead to be conceptualized as an appraisal of whether or not what was intended to be executed by those who designed and implemented the curriculum actually occurred (Lewy, 1977). Thus, those in charge of oversight regarding curricular evaluation are entrusted with an enormous task.

As expectations are communicated throughout the design and implementation processes, the evaluation component has to be established as a continuous cycle, not an endgame (Ashbee, 2021; Ellis, 2014; Lewy, 1977). For a curriculum system to be complete, there must be an intent to, and an understanding of, the process to evaluate the system in which the curriculum has been constructed, applied, and (re)assessed (Beauchamp 1981; Lewy 1977). The authors assumed that because of the vast amount of public attention and academic exposure committed to the design and implementation aspects of the curricular system, there would also be an established reservoir of curriculum evaluation literature for comparison. These assumptions were unfounded.

PURPOSE

The authors' original intent for researching curricular literature centered on analyzing relevant and recent scholarship with the field of education as it pertained to curricular evaluation. The following questions guided the authors as they ascertained for an understanding of how curriculum evaluations were discussed:

• How are various K-12 curricula being evaluated?

• What are the most important facets of curriculum evaluation?

• What kinds of common characteristics of curriculum evaluation exist?

• What key elements are evaluated after a curriculum has been implemented?

• Who is responsible for evaluating the curriculum being implemented?

• How is research looking at curriculum evaluation systems?

• How are current curricula being evaluated?

What became noticeable early into the investigation was that, while current literature about various curricular design and implementation platitudes were being fawned over, the need to further conduct and research curricular evaluation was not only overlooked (Steiner, 2017), but was devoid. This revelation refocused the authors to modify their research rationale away from meta-analyzing curricular evaluation literature to simply question: *Within the top cited articles over the past 10 years, how often has curriculum evaluation been referenced?*

METHODOLOGY

In order to explore important facets of curriculum evaluation, the authors strategized how to examine the top cited literature in the field. Martín-Martín et al. (2017) proved Google Scholar's capability of determining the highest cited publications. More recently, a number of scholars have utilized Google Scholar to distinguish highly cited articles (examples include Levine-Clark & Gil, 2021; Martín-Martín et al., 2021) and meta-analyses for educational research (for example, Castro & Tumibay, 2021; Said-Metwaly et al., 2021). Approaching the search process more vigorously, the authors used Harzing's (2007) Publish or Perish software.

Publish or Perish is a program that retrieves academic citations and analyzes the present number of metrics by searching for articles published using a variety of specified keywords. The rationale behind using the Publish or Perish software was because it would help find the top 30 highest cited publications over the last ten years that could best inform our investigation to answer our questions about curricular evaluation.

Inclusion Exclusion Criteria

Due to the nature of the research questions, it was determined that books, book chapters, reports, and conference proceedings were to be excluded. Instead, journal articles that explicitly stated a study of curriculum in the abstract were chosen regardless of the subject of the study (i.e. mathematics, technology, literacy, etc.) as long as the most important facet, curriculum evaluation, was included amongst the top cited publications. In Table 1, the first, second, and third phases of the search attempts using title, keywords, publications meeting criteria, and the number of publications relating to our research questions are shown. Please note, studies not involving K-12 curriculum, or that did not take place in the United States, were excluded.

Table 1

Phases One, Two, Three of Search Attempts

Search Attempt	Title Words	Keywords	Publications Meeting Criteria	Number of Publications Relating to Research Questions
Phase 1	No title words designated	K-12, curriculum, planning, implementation, and evaluation	Harris & Hofer, 2011	0
Phase 2	Curriculum	K-12, curriculum, planning, implementation, and evaluation	Angeli et al., 2016; Charalambous & Hill, 2012; Porter et al., 2015; Reisman, 2012	1
Phase 3	Curriculum Evaluation	K-12, curriculum, planning, implementation, and evaluation	Coxon et al., 2018; Monroy et al., 2014; Ortiz et al., 2018; Repovich, 2011	4

ANALYSIS

Using Beauchamp's (1981) criteria for curriculum systems (design, implementation, and evaluation), the team examined the articles that specifically studied K-12 curriculum and evaluation over the last ten years (2012-2022). As these facets were, or were not, identified the process to specifically categorize literature committed to curricular evaluation was initiated. In an effort to gain a better understanding of research literature committed to curriculum evaluation, the researchers removed all articles that did not meet the criteria established and sorted by total number of citations.

FINDINGS AND SIGNIFICANCE OF STUDY

The conclusion of this exploration, shown in Table 2, is that of the thirty-four articles retrieved in the Phase 3, only four met the search criteria.

Table 2

Facets of Curriculum Evaluation in Top Cited Curriculum Evaluation Studies 2011-2020

Author (year)	Planning, Implementation, Evaluation Discussed	Process for Evaluation	Criteria for Evaluation	Group Completing Evaluation
Monroy et al., 2014	Yes	Learning Analytics data evaluation	Measure of adherence, dosage, engagement, impact with curriculum	A research team from Rice University
Coxon et al., 2018	Yes	Student achievement	CCSS-M aligned pre/post-assessment, Cognitive Abilities Test Screening Form 7 (CogAT 7), and Draw-a-Scientist pre/post-assessment	A research team from Maryville University
Ortiz et al., 2018	Yes	Student pre- and post-program surveys and open-ended questions	Likert-type Surveys included statements regarding: interest in wildlife, birds; ability to identify birds; awareness of nature; interest in science and working with a scientist. Students also answered open-ended questions about the amount of time they spend outdoors, their favorite Texas animal, and their favorite wildlife-related activity.	A research team from Texas A&M University-Kingsville.
Repovich, 2011	Yes	A software program to track the student behavior change over time	Pre/post fitness test results, cognitive test results, surveys, and fitness goals	A research team from Eastern Washington University

Our interest in answering the question *'Within the top cited articles over the past 10 years, how often has curriculum evaluation been referenced?'* concluded with evidence that there is not enough current literature focused on curriculum evaluation available for reference. While each search phase using Harzing's (2007) Publish or Perish did yield a wide array of results based on keywords (K-12, curriculum, implementation, planning, and evaluation), only four articles met the research criteria and were deemed relevant and usable for those specifically interested in curriculum evaluation.

It should be noted that, while specific keywords were used to generate a list of articles inspired by curriculum, the relevancy of the articles obtained had little or nothing to do with the actual act of evaluating the curriculum. Instead, many articles including the words curriculum and evaluation centered purely on the idea of assessing student success. Overall, out of hundreds of available articles, there was not a robust enough amount of material dedicated to the curricular evaluation process. Based on these findings, we argue that some accountability to the curriculum system must be streamlined. Specifically, there needs to be a committed effort to curriculum evaluation. Due to the lack of source material yielded on curricular evaluation by the current study, we assume those researching curriculum in the U.S. either (1) have too much variance in their definition of the curriculum evaluation (2) unintentionally overlook the evaluative process or (3) are overly focused on the design and implementation aspects of the curricular system and are unenthusiastic about adherence to the importance of curriculum evaluation.

CONCLUSIONS

The body of literature concerning curriculum evaluation is inadequate. First, there is a clear gap in the literature as it pertains to curricular evaluation. Second, it is fair to assume the body of scholarship is attending to the use of the curriculum to evaluate student outcomes. Consequently, that should not diminish the literature explicating what is happening after a curriculum is designed and implemented. This study should put future researchers on notice that there is a clear need to cultivate, understand, and examine different methods being used by K-12 educators, administrators and school leaders as they apply various techniques, rationales, and justifications for curricular evaluation. Finally, the authors hope this study reinforces the need to adhere to Beauchamp's (1981) definition of a curricular system. Simplistic in nature, the curricular system should be explored and will only be informative when all parts of the system are carried out, documented, researched, and reported. Future research should reflect on how the inclusion and exclusion criteria were not of a specificity that was unrealistic considering how little literature there is in circulation and further expand upon investigating the research literature on curriculum, curriculum evaluation, K-12, implementation, planning, and evaluation through different curricular theoretical frameworks.

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Using Verbal Behavior Transfer Procedures to Increase Phonological Awareness

Nathan Reed
Madison Kerr

ABSTRACT

Verbal behavior (VB) is used as an instructional technique when programming for students with autism to increase language repertoires and motivation to communicate. Verbal behavior is used less frequently to provide academic instruction. The current research uses ABAB design to determine the effectiveness of using verbal behavior transfer procedures to teach phonological awareness; the skills that lead to textual behaviors such as phonological awareness have not received the attention that other non-verbal stimuli have received as an antecedent for evoking tacts. The results of the research indicate that echoic to tact transfer procedures can be generalized to teach complex examples of phonological awareness including digraphs and diphthongs, and that explicit phonics instruction can be incorporated into daily discrete trial sessions.

Keywords: Autism, Textual, Tact, Transfer Procedures, Phonological Awareness, Verbal Behavior

INTRODUCTION

Verbal behavior has been an area of focus for behavior analytic research and has been applied in academic and clinical settings in the education and treatment of individuals diagnosed with Autism. Verbal behavior, analyzed by B.F. Skinner, is how humans interact with their environments and communicate with each other. Communication is often the greatest impairment that individuals with autism struggle to overcome. Typically, the impairment is social communication, but may also present as non-social communication impairments in English Language Arts, specifically phonological awareness. Discrete trial training is the systematic approach used in verbal behavior instruction. This method of instruction also assists with contriving the necessary motivation for individuals with autism to interact with their environment and to communicate with others.

All communicative behavior requires the presence of motivation. Communication through reading often becomes aversive and reading material begins to function as a trigger to escape and avoidance textual behavior. A literature review reveals no current research that targets phonological awareness or other reading skills through verbal behavior programming. Although current research exists regarding procedures that provide verbal behavior treatments through discrete trial training and conducting functional analyses of treatments to reduce maladaptive behaviors through increasing functional verbal behavior, there has not been research conducted on the similarities between textual behavior and tact behavior.

Programs such as *Progressive Phonics* are available through open access to assist instructors with increasing phonological awareness through explicit instruction. *Progressive Phonics* is a direct instruction program that focuses on repetition of letter sounds through various exemplars and emphasizes the instructor modeling. Although these are positive aspects of any educational program, there is a lack of mastery required before presenting phonological elements though various exemplars. Discrete trial instruction, however, would emphasize the mastery of the tact, or expressive communication, of the initial letter sound before multiple exemplars are trained.

Textual behavior is learning a language that is functionally identical to what is spoken; however, it is presented through a different topography. Researchers have investigated using verbal behavior to teach foreign language skills under the premise that "neuro-typical children learn to respond as listeners (e.g., by pointing to objects or following directions) and as speakers (i.e., by acquiring the basic verbal operants, such as the mand, the tact, the echoic, and the intraverbal)" (Cortez et. al., 2021, p. 249). The authors of the previous study relate learner acquisition of the basic operants to generating stimulus classes. Best practices currently indicate that it is most effective to teach both listener and tact responses (Cortez et. al., 2021). In using prior research as a foundation, the investigators of the current research use the print of letter symbols in replacement of foreign languages as the targeted skill.

The behavior evoked by print or by observing written language in a similar topography presents an identical function to tact behavior. Plavnick and Normand in 2013 state, "Similar to research on functional analyses (FAs) of problem behavior, the verbal behavior research suggests that a prior understanding of the variables that evoke and maintain verbal behavior can be used to develop effective interventions" (p. 349). This provides another foundation for a brief functional analysis of the textual, echoic, and tact behavior. Textual and tact behavior share commonality of being evoked by a non-verbal discriminative stimulus, and textual and echoic behavior share commonality by demonstrating point-to-point correspondence. The point at which textual and tact behavior converge and the behavior is evoked supports Sundberg's 2007 claim that "given the variation and ubiquity of nonverbal stimuli, it is no surprise that the tact is a primary topic in the study of language" (p. 530). The investigators determined that discrete trial training would be an appropriate tool to investigate the commonality of these behaviors by presenting the nonverbal stimuli of letter symbols in an identical manner.

Discrete trial training is one of the most effective methods used in applied behavior analysis to provide instruction in verbal behavior. While discrete trial procedures follow a standard format, instructors can manipulate the prompts given to evoke specific operants of verbal behavior. Echoic to tact transfer procedures consist of the non-verbal stimuli being presented, followed by the tact being presented by the instructor's prompt "Say…". During the transfer trial the learner is prompted with "What is it?" to evoke the tact. Distractor trials may be included following the tact prompt, and a final "What is it?" prompt is provided to evoke the tact in a check trial (Barbera & Kubina, 2005). Although an effective method of increasing tact repertoires, there remains a question of whether mixed-trial instruction or block-trials are preferred. Both demonstrate effectiveness with teaching discriminations with mixed trials appearing more often. Bentham et. al. research in 2018 shows "results show blocked-trial methods resulted in faster skill acquisition in all cases, suggesting this format may be a preferable starting point for instruction" (p.534). This suggests using echoic to tact transfer procedures in a block-trial format may demonstrate greater efficacy in producing mastery of targets.

Individuals identified as participants were assessed through the Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP). This assessment allows practitioners to develop verbal behavior programming. Individuals with Autism benefit from verbal behavior instruction. The instruction of phonological awareness, to the knowledge of the investigators, has not been evaluated through verbal behavior programming. This study seeks to investigate the following guiding question. Will presenting phonological awareness instructions through verbal behavior transfer procedures produce a socially significant improvement in phonological awareness skills of individuals with Autism?

METHODS

Participants

Six individuals diagnosed with Autism participated in the current research. Participants' ages ranged from 5.10 years old through 10.8 years old and participate in a community-based school. All participants were

vocal and during instruction, two of the participants had access to Augmentative Alternate Communication (AAC) devices. Both devices were iPads with communication apps (e.g. GoTalk and LAMP); however, neither participant utilized AAC during sessions. Participants in the study possessed a functional tact, or expressive communication caused by the learner coming in to contact with various non-verbal stimuli, and echoic, or vocal imitation, repertoires. The lead investigator conducted all VB-MAPP assessments to ensure fidelity. Participants VB-MAPP scores ranged from 48.5 milestones through 127 milestones with a mean score of 89 milestones. After individuals demonstrated behaviors which qualified for participation, they were assessed using a portion of the Core Phonics Survey to determine their eligibility. In the Core Phonics Survey, Alphabet Skills and Letter Sounds is assessed which is scored as Benchmark: (83 points), Strategic (65-82 points), and Intensive (0-64) points. To continue eligibility a participant was required to score as either Strategic Learners (65-82 points) or Intensive Learners (0-64 points). Participants scores ranged from 10 points through 60 points with a mean score of 47.

Procedures

Once qualified for participation, participants began baseline conditions. This condition was designed to have a minimum of ten sessions and a maximum of 20 sessions. Instruction was provided using Progressive Phonics during both baseline conditions. Participants completed the required sessions of baseline before intervention conditions. Instruction during intervention conditions used Echoic to Tact Transfer procedures as described in the sixth paragraph of the introduction. The intervention condition consisted of ten sessions; after participants reached ten sessions participants were withdrawn to baseline conditions. Participants received Progressive Phonics instruction for five sessions before returning to the intervention conditions. The duration of the second intervention condition was determined through the analysis of prior participant performance. Targeted letter sounds were isolated by condition in order to control for incidental learning. Participants demonstrated the need for a mastery criterion of five consecutive correct probes. Probes were presented to each participant in an identical manner. Letter symbols were printed in lowercase print on green 3x5 notecards and the phrase "What sound?" was the antecedent stimulus to evoke the tact. All participants were presented with four initial targets during the initial baseline, first intervention, and return to baseline condition. All participants except Participant 3 were presented with four initial targets during the second intervention condition; Participant 3 was presented with seven as their performance demonstrated higher rates of acquisition.

Baseline

The procedures during both baseline conditions were identical for each participant. Target letters sounds were identified per participant. Once target letter sounds were identified an initial teaching trial was presented through *Progressive Phonics.* After the initial teaching trial participants engaged in probes prior to subsequent *Progressive Phonics* instruction to check for mastery.

Instruction through *Progressive Phonics* was implemented according to the Quick Start Guide. During this condition the investigator would read the book with the participant, the investigator read the regular text

(words typed in typically sized black font) and the participant would sound out the words printed in larger red text. *Progressive Phonics* can be presented via computers, tablets, or in hardcopy print; for the purposes of the current research, participants were exposed to *Progressive Phonics* in hardcopy print. The Quick Start Guide instructed the investigator to assist participants with sounding out the words presented in red text. When providing assistance to the participant, the investigator would prompt the participant with the phrase "Make this sound" and then producing the sound of each letter presented in red text. Once each sound was produced by the investigator and participant, the investigator would prompt the participant to blend the sounds together with the phrase "Say..." followed by sounding out each letter in the targeted word and then saying the target in its entirety. *Progressive Phonics* prescribes their texts to be read several times to provide repetition; for the purpose of the current research, participants read each passage 10 times during the initial baseline condition and five times during the secondary baseline. *Progressive Phonics'* goal is to achieve fluency by instantly recognizing the word presented in red text. The investigator used *Progressive Phonics Book 1* and *Book 2* for all participants during the initial baseline condition and *Progressive Phonics Book 3* and *Book 4* according to the letter sounds targeted during previous baseline and intervention conditions. During baseline conditions all participants were reinforced, with preferred edible or tangible reinforcement, according to their individual schedules of reinforcement to increase the future likelihood of the desired tact behavior to continue to occur. Schedules of reinforcement consisted of two continuous schedules of reinforcement, where the participants were provided reinforcement after every response, and four variable ratio schedules of reinforcement, where the participants were provided reinforcement after they reached an averaged number of responses.

Intervention

Once participants entered the intervention conditions, they were presented with an initial teaching trial of their targeted letter sounds. Prior to each session after the initial teaching trial participants engaged in probes to check for mastery. Once participants demonstrated mastery of a given letter sound, they were exposed to an initial teaching trial for each letter sound which was being introduced. Mastered letter sounds then functioned as "Knowns" and generalization trials were included in sessions.

Instruction during the intervention conditions was presented using errorless echoic to tact transfer procedures. Participants were presented with a green 3x5 notecard with an individual target letter written on it in lowercase print. Echoic to Tact trials began with the errorless antecedent, "What sound?" followed by an echoic prompt of the targeted letter sound. Participants echoed the investigator by producing the target. The transfer trial antecedent was presented by displaying the nonverbal stimulus of the letter symbol and the verbal prompt, "What sound?" which evoked the participant's tact of the target. The presentation of distractor trials was individualized based on each participants known motor imitation and listener discrimination behaviors identified through VB-MAPP testing or a reinforcer was provided for participants requiring continuous schedules of reinforcement. The antecedent for check trials was presented in an identical manner to the transfer trial prompt, a nonverbal stimulus of the letter symbol was presented followed by the verbal prompt "What sound?" which evoked the participant's tact of the target. If participants engaged in non-desirable behaviors

or demonstrated an incorrect echoic or tact, the trial was immediately terminated, the nonverbal stimulus and the availability of reinforcement were immediately removed. The investigator then presented the antecedent for an errorless echoic trial of the target sound. The error-correction sequence followed as detailed above. All participants were reinforced, with preferred edible or tangible reinforcement, according to their individual schedules of reinforcement to increase the future likelihood of the desired tact behavior to continue to occur. Schedules of reinforcement consisted of two continuous schedules of reinforcement, where the participants were provided reinforcement after every response, and four variable ratio schedules of reinforcement, where the participants were provided reinforcement after they reached an averaged number of responses. To maintain validity across conditions, reinforcement procedures were identical in baseline and intervention conditions.

Primary sources of data were collected by the lead investigator during probe trials, prior to instruction taking place daily; therefore, observations of participants' phonological awareness skills in other environments were considered anecdotal to maintain validity throughout the results. Interobservers recorded data via videos of probe sessions and the scores were compared trial by trial with the lead investigators.

RESULTS

Six participants participated in the current research with five of the participants demonstrating mastery of letter sounds throughout conditions and one participant demonstrating echoic and tact behavior only during teaching trials. The lead investigator conducted all session probes. Interobserver agreement was conducted in 61.88% of all sessions, agreement was observed in 84.92% of trials.

Participant 1 began baseline conditions with prior mastery of four letter sounds. During the initial baseline condition, Participant 1 mastered two targets through *Progressive Phonics*, they mastered the first sound after five sessions and mastered the second sound after eight sessions. Within the first intervention condition Participant 1 mastered four additional targets after five sessions. Participant 1 was introduced to four additional targets and demonstrated mastery of two additional sounds at session ten. Participant 1 returned to baseline and demonstrated mastery of two of the targets at the fifth session of the condition. In the second intervention condition Participant 1 mastered three targets, one letter sound and two consonant blends at the fifth session of the condition. A fourth targeted consonant blend during the sixth session and three additional targeted consonant blends at the tenth session of the condition.

Participant 2 began baseline conditions with prior mastery of six letter sounds. During the initial baseline condition Participant 2 did not demonstrate mastery of target through *Progressive Phonics*. Within the first intervention condition Participant 2 mastered one target after 10 sessions. Participant 2 returned to baseline and did not demonstrate mastery of targets. In the second intervention condition Participant 2 mastered two targets during the ninth session of the condition. It was determined that the participant would not reach the mastery criteria for the remaining two targets during a tenth session; therefore, the ninth session was the final session. Results for Participant 1 and Participant 2 are displayed in Figure 1.

Figure 1

Mastered Letter Sounds for Participant 1 and 2
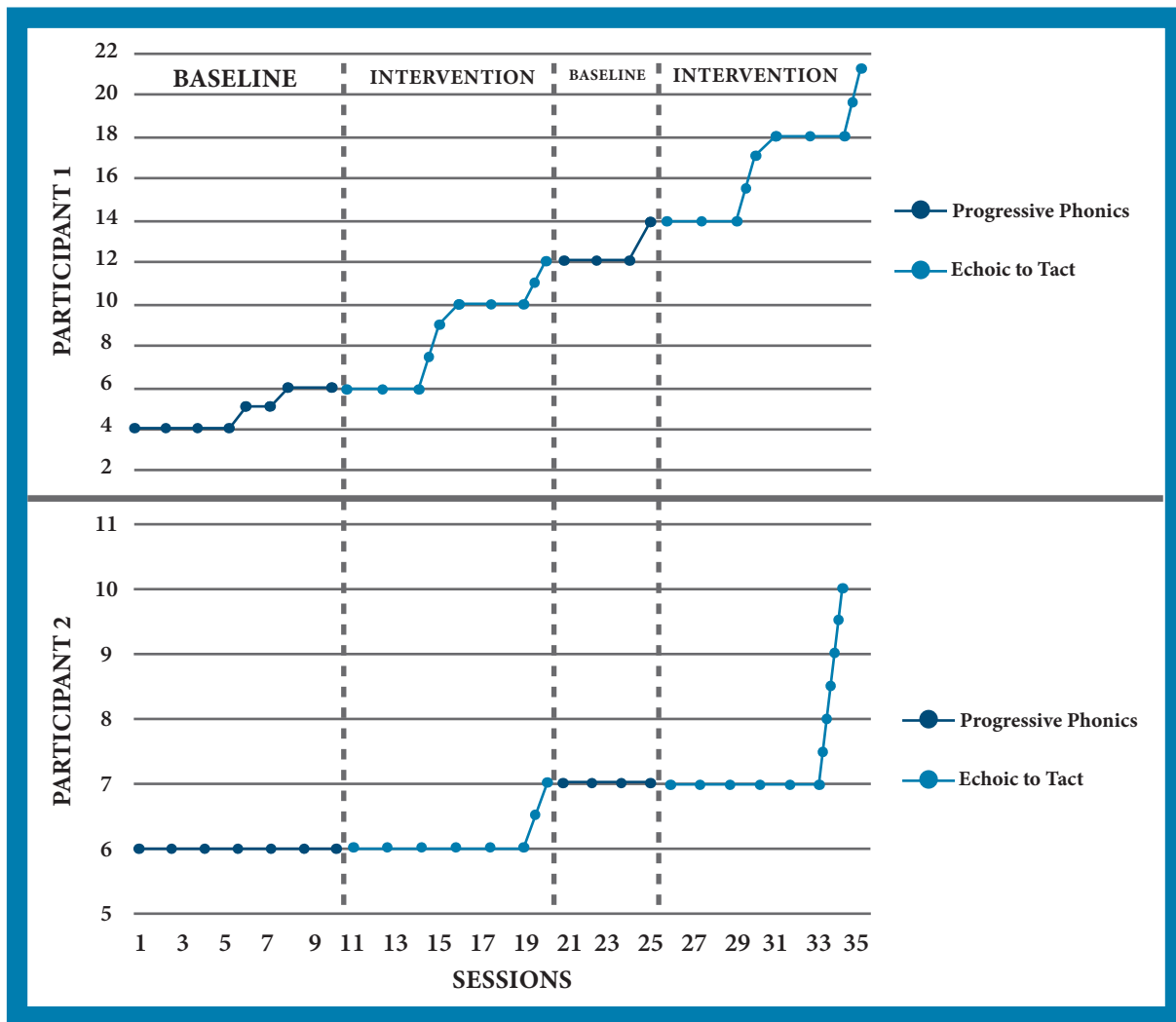
Participant 3 began baseline conditions with prior mastery of five letter sounds. During the initial baseline condition Participant 3 did not demonstrate mastery of targets. Within the first intervention condition Participant 3 mastered four targets after ten sessions. Participant 3 returned to baseline and demonstrated mastery of four targets at the fifth session of the condition. In the second intervention condition Participant 3 mastered four targets at the fifth session of the condition. Two targeted consonant blends during the sixth session three additional targeted consonant blends at the tenth session of the condition.

Participant 4 began baseline conditions with prior mastery of 10 letter sounds. During the initial baseline condition Participant 4 mastered two targets through *Progressive Phonics*, they mastered the first sound after five sessions, mastered the second sound after six sessions, and mastered the third sound after ten sessions. Within the first intervention condition Participant 4 mastered two targets after five sessions. Participant 4 was then introduced to two additional targets and demonstrated mastery of two additional sounds

at session ten. Participant 4 returned to baseline and demonstrated mastery of one target at the fifth session of the condition. In the second intervention condition Participant 4 mastered two targets, one letter sound and one consonant blend at the fifth session of the condition. A third targeted consonant blend during the sixth session two additional targeted consonant blends at the tenth session of the condition. Figure 2 displays the results for Participant 3 and Participant 4.

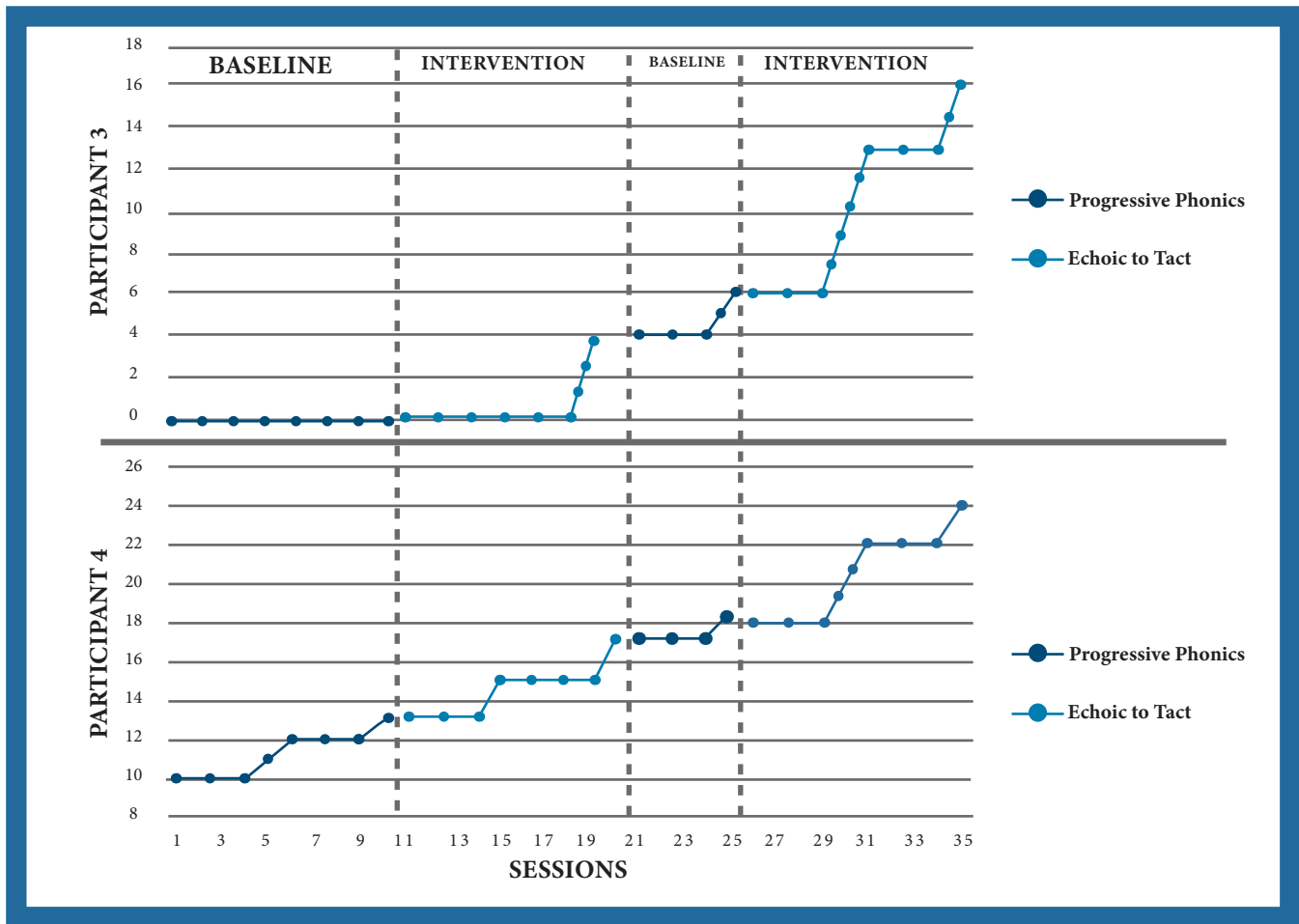## Figure 2
Mastered Letter Sounds for Participant 3 and 4

Participant 5 began baseline conditions without prior mastery of letter sounds. During the initial baseline condition Participant 5 did not demonstrate mastery of any targets. Within the first intervention condition Participant 5 mastered one target after ten sessions. Participant 5 did not demonstrate mastery of targets when they returned to baseline. In the second intervention condition Participant 5 mastered two targets in the ninth session of the condition. Due to Participant 5 demonstrating mastery of two targets during the ninth session, it was determined that the participant would not benefit from a tenth instructional session.

Participant 6 began baseline conditions with prior mastery of zero letter sounds. Throughout baseline and intervention conditions, Participant 6 did not demonstrate mastery of targeted letter sounds through probes. Figure 3 displays the results for Participant 5 and Participant 6.

Figure 3

Mastered Letter Sounds for Participant 5 and 6
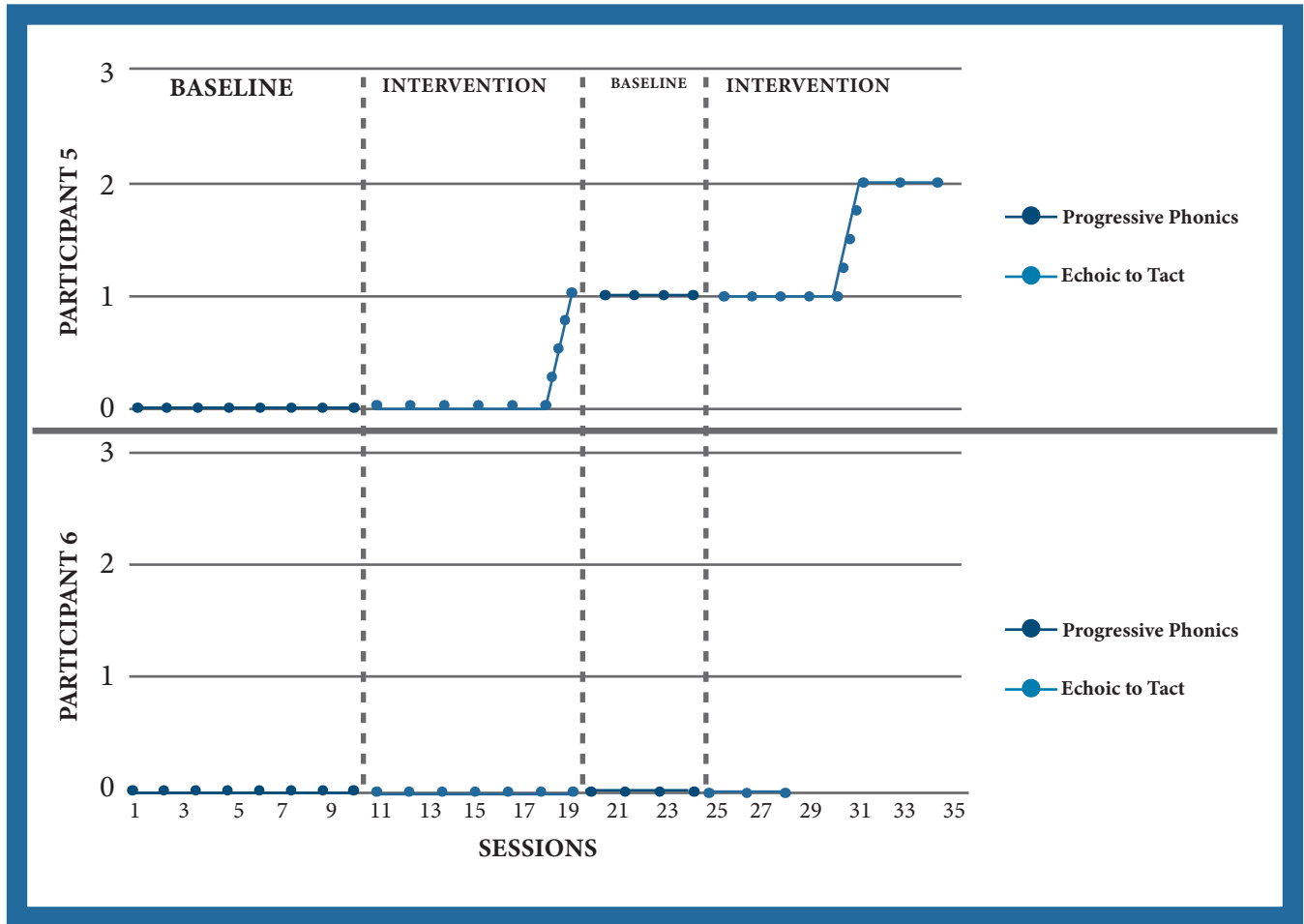
DISCUSSION

The purpose of the current research was to evaluate the effectiveness of using verbal behavior to increase the phonological awareness of individuals with Autism. Visual analysis of the acquired data demonstrated that using verbal behavior produced a socially significant gain in skills in five participants as compared to the baseline condition which presented phonological awareness instruction through a more typical direct instruction approach. The results of the experimental conditions suggest that echoic to tact transfer procedures can also be generalized to teach more complex examples of phonological awareness such as digraphs and diphthongs. Caution should be exercised when implementing these procedures and targets should be presented both through discrete trials and be available in the natural environment with several

instructors to assist learners with their generalization. Overall, 53 letter-sounds and consonant blends were mastered through all sessions, 43 of which were mastered during the intervention conditions.

The results of this study have potential implications of being a primary method to provide phonics instruction in a systematic and explicit manner to students who are on the Autism Spectrum. The manner in which the research was conducted also implies that explicit phonics instruction could be incorporated into daily discrete trial sessions rather than being conducted in separate instructional sessions. By incorporating phonics instruction into daily discrete trials, instructors could potentially decrease the incidence of maladaptive behavior during phonics instruction, which indicates that greater progress may be made across students who receive their primary instruction through discrete trials.

LIMITATIONS

The data collection method allowed the investigator to control the manner in which mastery could be easily identified and also allowed the investigator to contrive trials for participants to demonstrate their acquisition. This proved to be a limitation for Participant 6; they did not engage in probes when presented with the evocative prompt "What sound?", but when participants came into contact with targeted symbols in the natural environment they would emit the tact of the letter-sound. In future designs it may be beneficial to explore multiple methods of data collection or to individualize the data collection methods used to each participant. It is recommended that future research also considers implementing tact to intraverbal transfer procedures and tact to listener discrimination transfer to develop a more complete representation of the convergence of textual behavior and other operants of verbal behavior.

The current research also targeted only single letter sounds and consonant blends in isolation. In future designs, it is recommended that researchers seek to include digraphs, trigraphs, and diphthongs as targets. During the current research, targets introduced during intervention conditions were also taught only in isolation; therefore, it is recommended that future research explores using echoic to tact transfer procedures when providing instruction in the blending and segmenting of target words.

Age range also imposed a limitation in the current research. Participants ranged from 10 years 8 months to 5 years 10 months, and all participated in elementary classrooms. This limits the generalization of the current research to a restricted age group across autism spectrum disorders. In future designs, it is recommended that investigators identify appropriate individuals through a broader spectrum of age ranges.

The current research used one instructor, the lead investigator, to conduct all trials throughout each session, in order to reduce limitations on the generalization of tact behavior. A recommendation for future designs is to use multiple instructors who have demonstrated competency of the procedures through behavior skills training. The current research did not formally collect data relating to the response time required for participants at the onset or completion of research, this could have limited the research by terminating probes prior to a response. In future designs it is recommended that investigators consider measuring a baseline

response time across setting, stimuli, and instructors.

An Autism Spectrum Disorder diagnosis was an initial identification criterion used in the current research. In future designs, it is recommended to include individuals with intellectual disabilities, Down Syndrome, other developmental disabilities, or dyslexia to ensure the approach can be applied in a variety of settings and for a variety of individuals.

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Supporting Teacher Retention Through a Trauma-Informed Lens

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ABSTRACT

For the past decade, educators across the nation have experienced high levels of burnout and turnover. Concurrently, children have experienced high levels of exposure to childhood trauma, affecting their social-emotional health and ability to learn. While teachers play an important role in students' support systems, they are also at risk for experiencing secondary trauma and burnout. In Pennsylvania, some school districts have received funding to implement trauma-informed practices through the School Safety and Security Grant program to respond to the trauma experienced by both students and teachers. This research studies the influence of the grant program on teacher burnout and turnover. The results indicate that Pennsylvania teachers are experiencing burnout, particularly emotional exhaustion; however, no significant differences in burnout could be attributed to the programs related to the grant. Implications for further policy are discussed, including suggestions for implementing tiered whole-school models of trauma-informed practices.

INTRODUCTION

Educators in the United States are experiencing high levels of stress and burnout, in turn leading to increasing teacher turnover (Christian-Brandt et al., 2020; Mission Square Research Institute, 2021). Teacher turnover is defined as the rate of teachers both moving to teach in another school and leaving the profession entirely; it has affected nearly 50 percent of early career teachers in the past decade (Ingersoll et al., 2018). As teachers are dealing with their own burnout and thoughts of leaving their classroom, they also are likely working with and supporting students who have experienced trauma. Pre-pandemic, nearly two-thirds of adults in America report experiencing an Adverse Childhood Experience, or traumatic event that occurred during childhood (Centers for Disease Control and Prevention [CDC], 2020). Both childhood trauma and teacher turnover have been exacerbated by the COVID-19 pandemic; however, education advocates have been calling for the use of trauma-informed practices in education to support both teachers and students during the pandemic and beyond (Darling-Hammond & Hyler, 2020; Imad, 2020; Learning for Justice, 2020; Roberts, 2020; The New Teacher Project [TNTP], 2020). This research aims to understand the impact of trauma-informed practices on teacher well-being, including burnout and thoughts on leaving the profession.

TEACHER BURNOUT AND TURNOVER

Burnout is defined as a syndrome resulting from chronic workplace stress that is not appropriately managed (World Health Organization [WHO], 2019). According to WHO, burnout has three dimensions: "feelings of energy depletion or exhaustion; increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy" (2019). During the COVID-19 pandemic, a survey of public sector employees across the country found that 52 percent of K-12 public school employees reported feeling burned out. These K-12 school employees were more likely to report feeling burned out than any other group of public sector employees (Mission Square Research Institute, 2021). This burnout is not just confined to the COVID-19 pandemic. Previous research has also found that teachers experience high levels of burnout, particularly those who teach in schools with a large population of low-income students or students from historically marginalized backgrounds (Abraham-Cook, 2012; Christian-Brandt et al., 2020; Shen et al., 2015; Skaalvik & Skaalvik, 2011). In such studies, high levels of burnout have been shown to predict teachers' reported intent to leave the classroom and education profession entirely (Christian-Brandt et al., 2020). Thus, one consequence of teacher burnout is teacher turnover.

Teacher turnover, the rate of teachers either moving from one school to teach in another or leaving the teaching profession, has remained a persistent problem in the United States (Ingersoll et al., 2018). When Ingersoll et al. (2014) first analyzed major trends in the teaching profession, 44 percent of teachers in public or private schools left the teaching profession within their first five years on the job. When this study was repeated in 2018, 44.6 percent of teachers left the teaching profession within their first five years, suggesting a stagnancy of high levels of turnover and persistent teacher shortage in America, despite measures taken to increase

teacher retention in the past decade (Ingersoll et al., 2018). In 1992, 5.1 percent of public school teachers left the education profession; in 2005, this attrition rate of teachers leaving the classroom increased to 8.4 percent and has hovered around eight percent since then (Carver-Thomas & Darling-Hammond, 2017). Only one third of all teachers who leave teaching are retiring, reflecting a very small portion of the workforce (Ingersoll et al., 2018). An additional approximately eight percent of teachers leave their school to teach in another school, leading to an overall teacher turnover rate of approximately 16 percent in America (Carver-Thomas & Darling-Hammond, 2017). In other high-achieving school systems globally such as Finland and Singapore, where teachers and students are supported by advanced social supports to address needs outside of school, teacher turnover rates average as low as three to four percent (Carver-Thomas & Darling-Hammond, 2017). Research into the reasons for this turnover suggest that job dissatisfaction and student discipline problems often impact teachers' decisions to leave the classroom (Ingersoll et al., 2018; Ingersoll & May, 2012; Skaalvik & Skaalvik, 2011). Another common finding is that teacher turnover does not affect all schools equally. In their 2018 study, Ingersoll et al. found that urban and rural public schools, particularly those with the majority of students from low socio-economic backgrounds or minoritized communities, have the highest levels of turnover.

Estimates suggest that teacher turnover may be greatly affected by the COVID-19 pandemic. In early 2021, a survey of teachers in the United States found that 42 percent of teachers considered leaving their current teaching position or retiring at the end of the 2021-2022 school year (Zamarro et al., 2021). Schools across the country have faced staffing shortages, forcing school shutdowns. In the Los Angeles Unified School District alone, there were over 500 teacher vacancies at the start of the 2021-2022 school year, five times greater than in previous years, causing a reliance on substitute teachers and larger class sizes (Gecker, 2021). In addition to dealing with stress from the pandemic in their own homes, teachers have been asked to work longer hours, provide remote teaching, and care for their students who are also experiencing pandemic-driven stress (Diliberti et al., 2021). This pandemic-driven stress has been cited by teachers as the most common reason for leaving the teaching profession in 2020 and 2021 (Diliberti et al., 2021).

TRAUMA

One source of the stress and burnout experienced by teachers may be working with students who have experienced trauma. Thus, the teacher shortage may be exacerbated by the high rates of trauma that are experienced by young children. Traumatizing events or experiences that occur in childhood are known as Adverse Childhood Experiences, or ACEs (CDC, 2020). Pre-pandemic, 61 percent of adults in the United States report having experienced at least one ACE before they were 18 (CDC, 2020). These ACEs, including multiple forms of abuse, neglect, and family instability, have been exacerbated by the COVID-19 pandemic. As of June 2021, 140,000 children, one out of every five children in America, lost a parent or caregiver to COVID-19; 65 percent of these children were from historically minoritized backgrounds (CDC, 2021). In

addition to this physical loss, 51 percent of adults with a child in their household reported losing income in 2020, worsening economic insecurity for millions of children (Garfield & Chidambaram, 2020). The national poverty rate in the United States briefly dropped to 12.1 percent of children in 2021 after the passage of the expanded Child Tax Credit in the American Rescue Plan; however, as the Build Back Better Act was stalled, the program expired in early 2022. As a result, in January 2022, the poverty rate increased by 4.9 percentage points to 17 percent of children living in poverty, a 41 percent increase; this includes 23.9 percent of Latino children and 25.4 percent of Black children living in poverty (Center on Poverty and Social Policy, 2022). As children are subjected to economic stress, parent concerns over childcare, school shutdowns, and isolation, the pandemic has worsened the prevalence of ACEs in young children and could even be considered a shared ACE itself (Araujo et al., 2020). Thus, the COVID-19 pandemic has had and continues to have a severe impact on young children by worsening existing race and class-based inequities and bringing new stress to households.

TRAUMA-INFORMED PRACTICES

Teachers' work with students who have experienced trauma has been further connected to teacher turnover. In one study, when surveyed, 75 percent of teachers who reported working with students who have experienced trauma responded that they had thoughts or plans to leave the teaching profession, retire, or move to teach in another school (Caringi et al., 2015). During the pandemic, many education researchers and teacher advocacy organizations have called for the use of trauma-informed practices in education to support both students who have experienced trauma and the teachers that work with them (Darling-Hammond & Hyler, 2020; Imad, 2020; Learning for Justice, 2020; Roberts, 2020; TNTP, 2020). When applied to education, trauma-informed practices require:

> Realization and recognition of trauma and its impacts on children, upskilling regarding responses to children and adolescents experiencing trauma, and limiting re-traumatization of children (and potential secondary trauma symptoms among educators) by improving the school ethos and environment in support of trauma-exposed students. (Berger & Martin, 2021, p. 224)

Trauma-informed practices include identifying and assessing trauma, creating safe and predictable learning environments, cultural responsiveness, positive behavior management, positive relationship building, and social-emotional learning (Reddig & VanLone, 2022). These practices are designed to help school employees create a safe and secure environment where students can build resilience and emotional regulation skills to overcome the traumas that they have experienced.

In addition to supporting students, trauma-informed practices education, particularly whole-school models, can be used to support teachers who are working with students who have experienced trauma. Trauma-informed whole school models "recognize the relationship between and alignment of trauma-informed core areas with social, emotional, and behavioral learning practices, disciplinary response, classroom management, and student and professional support" (National Child Traumatic Stress Network [NCTSN],

2017, p. 4). They often rely on a multi-tiered system of support to provide universal support for all students and teachers in level one, targeted in-school support in level two, and out of school community support in level three (NCTSN, 2017). In one study, teachers who reported having high levels of Secondary Traumatic Stress (STS) were more receptive to implementing trauma-informed practices in their classrooms (Christian-Brandt et al., 2020). Other researchers found that learning about trauma-informed practices increased teacher well-being and expanded their professional capacity. The teachers were able to create workplace coping mechanisms, increase self-regulation of their behavior, increase relational ability, and seek out increased access to psychological resources (Brunzell et al., 2021). Teachers who implemented trauma-informed social-emotional learning reported decreased emotional exhaustion after using the practice (Kim et al., 2021).

Relationships with and support from other colleagues and administrators have been particularly helpful for teachers when working with students who have experienced trauma (Alisic, 2012). This support further led to increased feelings of belonging in the school and teaching profession (Skaalvik & Skaalvik, 2011). Some schools directly encourage support among colleagues and form peer support and teacher wellness groups to support teachers who have experienced STS. One trauma-informed school district in Vermont uses professional development time for health activities like hiking, biking, and knitting to improve educator wellness and bonding amongst colleagues (Minero, 2017). Thus, while trauma-informed practices have shown great improvement in student social, mental, and academic growth, they are also beneficial for educators who are at high risk of STS or burnout.

PURPOSE OF THE PRESENT STUDY

This study aims to understand the intersection between teacher turnover and the burnout experienced by teachers who work with students who are dealing with childhood trauma. As children across America experience high levels of ACEs, and these ACEs have been exacerbated by the pandemic, teachers are very likely to work with students who have experienced trauma. Without the proper tools of trauma-informed practices to work with these students, teachers may experience high rates of burnout and desire to leave the classroom. This research tests the efficacy of a trauma-informed practice intervention on reducing teacher burnout and intended turnover among Pennsylvania public school educators.

Legislative Context

In the Commonwealth of Pennsylvania support for trauma-informed practices in education can be found in Act 18 of 2019. This act was passed by the Pennsylvania State Legislature and signed into law in June of 2019, amending the School Safety and Security Grant program that is included in the Pennsylvania Public School Code. This grant program allows school districts in Pennsylvania to apply for funding from the state government to implement school safety and security measures. Act 18 of 2019 amended this grant program to include provisions allowing school districts to apply for funding for trauma-informed approaches to education (Pennsylvania Commission on Crime and Delinquency, 2019). Under this law, a school that applies for funding

for trauma-informed approaches must create a Model Trauma-Informed Approach Plan and submit it for approval to the Pennsylvania Commission on Crime and Delinquency.

The specific guidelines for the Model Trauma-Informed Approach Plan are outlined in the Pennsylvania Public School Code of 1949. Section 1306-B requires that a school's proposed approach include "increasing student and school employee access to trauma support services and behavioral health care" (Pennsylvania General Assembly, n. d.). Thus, the grant requires both students and educators to have increased access to counselors, social workers, and psychologists within the school as well as support from partnerships with behavioral health services outside of the school. Additionally, the grant requires training employees to "develop safe, stable and nurturing learning environments that mitigate the effects of trauma" (Pennsylvania General Assembly. n. d.). Section 1311-B further requires grant recipients for the Model Trauma-Informed Approach to understand, recognize, and respond to the impact of secondary trauma on school employees, including further professional development training and resources.

When school districts apply for School Safety and Security Grants, they must indicate which category of programming they plan to implement with the funding. These categories are outlined in Section 1306-B of the Pennsylvania Public School Code of 1949. Category 20 provides funding for screening students for ACEs and implementing trauma-informed counseling for students. Category 21 funds trauma-informed approaches to education including student and employee access to trauma support services and behavioral healthcare. Finally, Category 22 provides funding for reducing community violence through trauma-informed practices. In 2020, 89 school districts in Pennsylvania received School Safety and Security Grants under categories 20, 21, and/or 22.

Research Question

This research aims to understand how teachers' access to the trauma-informed approach to education provided through the School Safety and Security Grant in Pennsylvania affects teacher burnout and retention. Thus, the study's research question is as follows: How does participating in a school with a trauma-informed approach to education affect teacher burnout and intended turnover? Based on the previously reviewed literature, this research hypothesizes that participation in a school with a trauma-informed approach to education reduces teacher burnout and intended turnover. To answer this question, this research surveyed PA public school teachers regarding levels of burnout, intended turnover, and thoughts on trauma-informed practices using mixed quantitative and qualitative methods.

METHOD

Participants

Two groups of survey participants were identified: Group 1) Teachers from PA schools that received the safety grant for trauma-informed practices (the intervention group); and Group 2) Teachers from PA schools that did not receive the safety grant (the control group). In order to recruit participants, the authors

first identified all of the school districts that received the School Safety and Security grants for over $100,000 in 2020 specifically for the programs related to trauma- amounting to thirty-nine school districts, as the awards significantly dropped to around $45,000 after this point. After the schools in the intervention group were identified, the authors used a matched sampling procedure to select schools for the control group based on comparable locations, poverty status, and size. These comparisons were drawn in order to ensure comparable samples of teachers rather than, for example, having majority large urban schools in the intervention group and small rural schools in the control group. School districts that had their own extensive internal process for IRB approval were not included in this study due to time constraints. Thirty-nine school districts were also selected for the control group to estimate equal sample sizes.

Measures

The mixed-methods survey was designed in four parts: (1) Demographic questions, (2) the Maslach Burnout Inventory, (3) Likert-scale and descriptive questions about turnover, and (4) the open-ended qualitative question. At the beginning of the survey, participants were required to provide informed consent to move forward with the survey. The demographic questions section included questions regarding the teachers' degree level, age, gender, race/ethnicity, level of school (elementary/intermediate/secondary), the geography of their district (urban/suburban/rural), and whether their school receives funding from Title I for having a significant population of low-income students.

The second portion of the survey included questions from the Maslach Burnout Inventory Educators Survey (MBI-ES). The MBI is a commonly used reliable and valid burnout scale across caring professions, including human services, medical personnel, students, and educators (Maslach et al., 2018). It was previously used in a 2021 study of burnout and attitudes towards trauma-informed practices in teachers from Canada (Kim et al., 2021). The MBI-ES contains questions that are specifically catered towards the experiences of educators across three subscales (emotional exhaustion, depersonalization, and personal accomplishment). The MBI-ES contains three subscales of up to 9 statements and asks the participant to rate how often they experience feelings related to the statement on a 7-point Likert scale. All twenty-two questions, across all subscales, from the MBI were included in the survey instrument for this study.

The final two portions of the survey instrument were the questions about turnover and the open-ended qualitative question. The first question in the turnover section included a 7-point Likert scale asking participants how often they think about leaving their school. This question was followed by another asking if they planned on leaving their school at the end of the school year (responses were recorded as yes, no, or maybe). Similarly, the next set of questions included a 7-point Likert scale asking how often the participant thinks about leaving the profession of teaching entirely, followed by asking if they planned on leaving the profession. The final question was an open-ended response asking the participants, "How have trauma-informed supports (i.e., trauma-informed pedagogy training, access to mental and behavioral health counseling and services, positive behavior interventions and supports, wellness activities, community engagement) affected your job satisfaction in the past year?" This open-ended question was optional, with no limitations of the length of the response.

Data Collection and Analysis

Once the school districts for both the intervention and control group were established, each superintendent was individually emailed and asked to distribute the survey to the teaching staff in their school district After this initial round of emails and follow-up phone calls with the superintendent's administrative assistants, 109 complete responses were recorded in the control group and a total of 65 complete responses were recorded from the intervention group. Once all of the data were collected, the responses were downloaded from Qualtrics, and the data were then cleaned to remove extraneous information generated by Qualtrics and created numerical values for some of the variable responses to aid with the analysis. The quantitative analysis was conducted in SPSS to analyze differences between the groups on the levels of burnout and intended turnover. The open-ended question was then analyzed using qualitative inductive content analysis.

RESULTS

Participants

Participants in this study were composed of two groups, the intervention group (n=67) of teachers in schools that received a PA Safety and Security grant for trauma-informed practices and the control group (n=109) of teachers in PA schools that did not receive said grants. The total sample was 176 participants. Overall, the participant demographics between the intervention and control group are very similar and largely describe White, female, highly educated teachers over 40 years of age teaching in suburban schools (Table 1).

Table 1

Participant Demographics

Characteristic	Intervention		Control	
	n	%	*n*	%
Degree				
Associates	0	0	2	1.8
Bachelor's	10	14.9	17	15.6
Master's	55	82.1	88	80.7
Ph.D.	2	3.0	2	1.8
Age				
20-29	12	17.9	15	13.8
30-39	12	17.9	38	34.9
40-49	21	31.3	29	26.6
Over 50	22	32.8	27	24.8
Gender				
Female	49	73.1	85	78.0
Male	17	25.4	24	22.0
Prefer not to say	1	1.5	0	0
Race				
Asian or Pacific Islander	1	1.5	1	0.9
Black or African American	0	0	2	1.8
Hispanic or Latino	0	0	2	1.8
Other	0	0	3	2.7
White	66	98.5	101	92.7
School				
Elementary	25	35.8	36	33.0
Elementary & Intermediate	2	3.0	1	0.9
Intermediate	21	31.3	19	17.4
Intermediate & High School	2	3	6	5.5
High School	16	23.9	41	37.6
Other	2	3.0	6	5.5
Geography				
Rural	4	6.0	18	16.5
Suburban	63	94.0	91	83.5
Title I				
Yes	38	56.7	77	70.6
No	29	43.4	32	29.4

Quantitative Analysis

Maslach Burnout Inventory

The first stage of quantitative analysis was scoring the MBI-ES measure to create the three burnout subscales. Using SPSS, new variables were computed for each of the three burnout subscales: Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). The EE, DP, and PA scores were then considered the dependent variables of the study, in addition to the questions about leaving the classroom.

To analyze the results, T-Tests for independent samples were conducted for the normally distributed dependent variables, EE and PA. Additionally, T-Tests for independent samples were conducted for the likelihood of moving schools and likelihood of leaving the teaching profession. The analysis further showed that the DP measure was not normally distributed and thus required the use of the Mann-Whitney U test, the nonparametric version of the T-Test for independent samples. The results of the first t-test for emotional exhaustion were not significant at the .05 level (p=.714). The intervention mean was 3.57 and the control mean was 3.49. These means indicate that participants, on average, felt emotionally exhausted multiple times a month, but not every week. The results of the t-test for personal accomplishment were also not significant (p=.587). The intervention mean for this measure was 4.64 and the control mean was 4.71 (Table 2). These means indicate that the participants felt personal accomplishment, on average, at least once a week.

Table 2
Analyses of Emotional Exhaustion and Personal Accomplishment

Burnout Measure	Intervention			Control			p
	n	M	SD	n	M	SD	
Emotional Exhaustion	67	3.57	1.31	109	3.49	1.18	.714
Personal Accomplishment	67	4.64	.74	109	4.71	.73	.587

The non-parametric Mann-Whitney U test for the depersonalization measure was further not significant (p=.431) (Table 3).

Table 3
Mann-Whitney U Nonparametric Analysis of Depersonalization

Burnout Measure	Intervention		Control		p
	n	Mean Rank	n	Mean Rank	
Depersonalization	67	92.35	109	86.13	.431

Teacher Retention

T-tests were also conducted to compare the scores of the intervention and control group on the measures of teacher retention. For the measure of thoughts about moving to teach in another school, the t-test results were statistically significant (p=.02). The intervention mean was .94 with a standard deviation of 1.25 and the control mean was 1.33 with a standard deviation of 1.45. In the intervention group, the mean indicates that, on average, participants almost never thought about leaving their school; in the control group, participants, on average, thought about leaving their school a few times a year, but less than once a month. The Cohen's D effect size was -.359, indicating a small effect of higher thoughts of leaving the profession in the control group. For the measure of thoughts on leaving the teaching profession entirely, the t-tests results were not statistically significant (p=.988). In both groups, on average, participants reported thoughts of leaving the teaching profession once a month (Table 4).

Table 4

Analysis of Teacher Turnover

Teacher Turnover Measure	Intervention			Control			p	d
	n	M	SD	n	M	SD		
Thoughts on Moving Schools	67	.84	1.25	109	1.33	1.44	.022*	-.359
Thoughts on Leaving Profession	67	2.18	1.95	109	2.18	1.91	.988	
* p < .05								

The descriptive results of the Yes/No/Maybe questions on desire to move schools and leave the profession were further collected. For the question about plans to move to teach in another school at the end of the year, approximately 90 percent of participants from both groups indicated that they were not planning on moving schools. For the question about plans to leave the teaching profession entirely, approximately 85 percent of both groups said no, they do not plan on leaving the teaching profession and 13.8 percent said maybe. These results are also shown in Table 5.

Table 5

Descriptive Statistics of Teacher Turnover

Attrition Measure	Intervention		Control	
	n	%	*n*	%
I plan on moving to teach in another school district at or before the end of the school year				
Yes	1	1.5	1	0.9
No	60	89.6	100	91.7
Maybe	6	9.0	8	7.3
I plan on leaving the education profession at or before the end of the school year				
Yes	3	4.5	0	0
No	57	85.1	94	86.2
Maybe	7	10.4	15	13.8

Qualitative Analysis

For the open-ended question, qualitative inductive content analysis was used to assess the teacher attitudes towards the trauma-informed practices and their attitudes towards trauma-informed practices in their schools. To develop these codes, the first researcher read through the responses and noted general similarities and themes in the participants' responses to the question: "How have trauma-informed supports (i.e., trauma-informed pedagogy training, access to mental and behavioral health counseling and services, positive behavior interventions and supports, wellness activities, community engagement) affected your job satisfaction in the past year?" In this first reading, possible codes for larger themes were identified such as "Positive attitude towards trauma-informed practices," "negative attitude towards trauma-informed practices," and "trauma-informed practices are available for students, but not for teachers." After this list of larger coding themes was created, the responses were read through a second time to further identify codes for smaller themes and add nuance to the analysis. These included specific components of trauma-informed practices such as "Support from colleagues is helpful." Codes were also created for common trends in the respondents' requests and frustrations with trauma-informed practices such as "needing more planning time for trauma-informed practices to be useful." Once all of these codes were established in the second reading, a hierarchical coding frame was established, grouping the smaller codes under the umbrella of the larger themes (Figure 1).

Figure 1

Hierarchical Coding Map
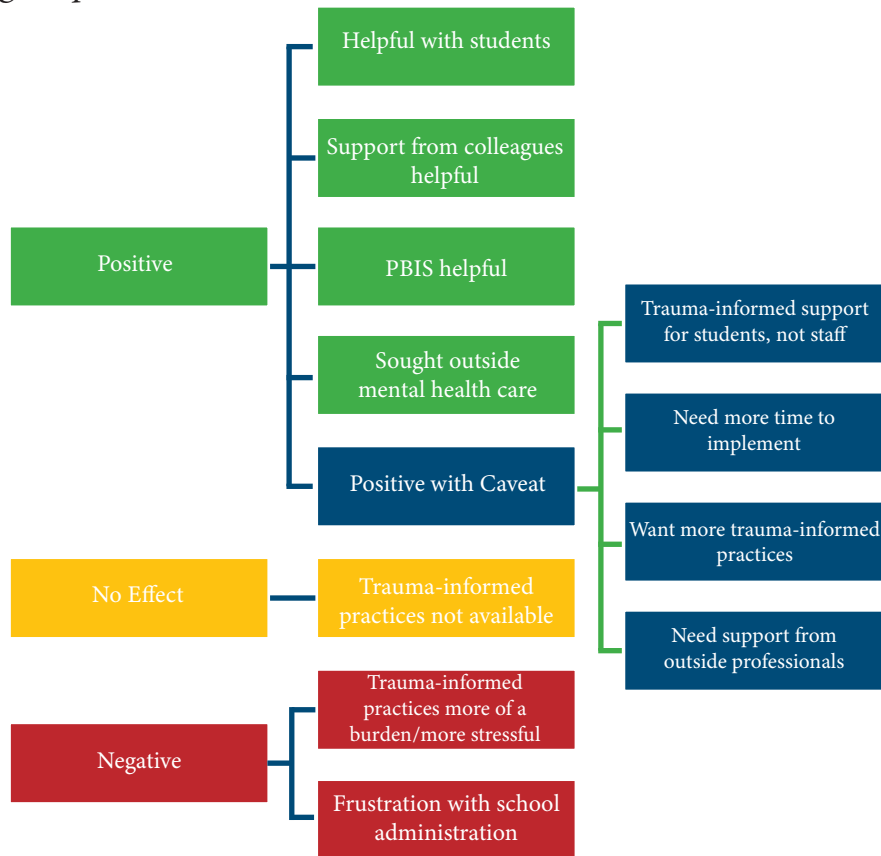
With all of these codes established, the primary researcher created an excel spreadsheet for both the control and intervention group to track the codes present in each open-ended response question. If a code was present, it was highlighted with an assigned color and marked a "1" in the excel spreadsheet under the assigned code category. If the code was not identified, the first author marked a "0" in the spreadsheet. Once the coding was complete, the prevalence of each code for each group, intervention and control, was calculated and compared the prevalence between the groups. After this, all of the responses were aggregated to evaluate the prevalence of each code in the entire sample to complete the qualitative analysis. Once the first author completed the coding process, a second researcher coded 30 percent of the responses under the same criteria and determined inter-observer agreement levels above 90 percent for both groups.

The qualitative analysis revealed participants' generally positive thoughts regarding trauma-informed practices but mixed feelings on their efficacy and implementation. In the control group, 56 responses included language with positive attitudes towards trauma-informed practices and 33 responses included language that was coded as positive, with a caveat (i.e., trauma-informed practices exist for students not staff). For instance, one teacher responded, "The move to lead a more trauma-informed classroom has definitely encouraged me in my teaching. Putting students first and their needs above curriculum reminds us why we do this." Another

responded with positive attitudes towards trauma-informed practices, but further interest in seeing more support for teachers:

> "I think that the training that we have towards being empathetic for students has positively impacted my relationships with students. The largest issue I see is that teachers have not been given time for them to deal with their own trauma. Teachers are preached at about self-care and support but are not given adequate time (professional development time) to unpack the stress and traumas. We are still in a global pandemic and we've been heralded as heroes and disregarded as indoctrinating villains - but give us support and time to cope with that."

In the intervention group, 27 respondents found trauma-informed practices helpful, and 14 respondents found them helpful with a caveat. One respondent made remarks about the desire for more support from their school's administration in implementing trauma-informed practices for teachers:

> "Trauma informed supports have affected my job satisfaction in the past year positively with the implementation of school wide PBIS and responsive classroom training. However, I wish that my school took our mental health more seriously by doing more to reduce our workplace strain and stress. For example, not "loading" a class with many high needs students and very little support. Also, sending out a PD about self-care, is absolutely not helpful, which my district has done on multiple occasions. Administration seems out of touch with the amount of work we are expected to do on a daily basis."

Finally, a few participants in each group held negative perspectives on trauma-informed practices. Twenty-five participants in the control group and ten participants in the intervention group expressed a negative attitude. For example, one member of the control group responded, "There has been a negative impact on my job satisfaction. We are told to utilize the supports and engage in wellness activities, however, there is no time provided to do so." These responses reflect teachers' mix of attitudes from appreciation for trauma-informed practices to frustrations with additional work, compounded by expectations from their school administration.

Looking at the smaller codes in the negative category, while only two respondents in the intervention group remarked that trauma-informed practices were more of a burden 14 participants expressed that that trauma-informed practices were stressful or burdensome on top of their traditional job pressures. One respondent said:

> "These supports have made my job somewhat more stressful because they add extra layers and responsibilities (that I don't feel adequately equipped to handle) to the job of teaching. I am not a counselor or social worker, and I don't feel I have the skills and resources to handle many trauma-based situations that students come to me with."

The nuanced responses thus show participant's concern over the scope of trauma-informed practices, asking them to take on more mental health responsibilities, and lack of a trauma-informed whole school environment with support from their administrations.

DISCUSSION

Teacher Burnout

Though there were no significant differences between the control and intervention group's scores on the three subscales of the MBI-ES, the mean scores of both groups reveal heightened levels of burnout in the entire sample, particularly in the emotional exhaustion subscale. Previous studies have established high, moderate, and low categorizations for each of the MBI-ES subscales. For emotional exhaustion, a score of 27 and above is high, 17 to 26 is moderate, and zero to 16 is low emotional exhaustion (Bernhard, 2016; Maslach et al., 1997). Based on the MBI-ES, the respondents in both the intervention and control group of this study exhibit high levels of emotional exhaustion, scoring at 32.13 and 31.15, respectively when calculated as the average of the total sum of the participants' Likert scale responses. The respondents further demonstrate low depersonalization and high personal accomplishment.

These results on the emotional exhaustion subscale of burnout are substantially higher than the levels of emotional exhaustion seen in past studies of teacher burnout using the MBI-ES. In a study of burnout in music teachers, Bernhard (2016) reported an emotional exhaustion score of 19.02, only moderate emotional exhaustion; Shen et al. (2015) reported a score of 3.02, or 27.18, just barely hitting the threshold for high emotional exhaustion; and Abel and Sewell (1999) reported emotional exhaustion scores of 26.37 in rural teachers and 26.39 in urban teachers, also at a moderate emotional exhaustion level. A recent study using the MBI-ES, conducted in 2021 in Canada, reported a baseline emotional exhaustion score of 20.25 from respondents, also indicating moderate emotional exhaustion (Kim et al., 2021). Thus, the respondents in this research study report high scores on the emotional exhaustion subscale of burnout, and these scores are substantially higher than seen in recent studies, including the referenced recent comparative study in Canada.

While only one subscale of the MBI-ES, previous literature has shown that emotional exhaustion is particularly related to feelings of burnout among educators. Two previous studies have shown that teachers who work in classrooms with high levels of student misbehavior experience higher levels of emotional exhaustion, and in turn, burnout (Aloe et al., 2014; Skaalvik & Skaalvik, 2011). Additionally, according to Maslach et al. (2001), the creators of the MBI-ES, emotional exhaustion is the central dimension of burnout and the most obvious manifestation of burnout. Emotional exhaustion often later leads to experiences of the two other dimensions of burnout, feelings of high depersonalization and low personal accomplishment (Maslach et al., 2001). Thus, by exhibiting substantially high levels of emotional exhaustion, the results of this study indicate that the participants from both the control and intervention group are experiencing burn out. This finding is in line with previous literature suggesting that teacher experience higher levels of burnout (Abraham-Cook, 2012; Aloe et al., 2014; Christian-Brandt et al., 2020; Maslach et al., 2001; NCTSN, 2011; Shen et al., 2015; Skaalvik & Skaalvik, 2011) and particularly during the COVID-19 pandemic (Carver-Thomas et al., 2021; Pressley, 2021; Trinidad, 2021).

Teacher Retention

In addition to the high levels of emotional exhaustion and signs of burnout reported by the teachers in this study, they also reported thoughts of moving to teach in another school and leaving the education profession entirely. When asked about their intention to leave the classroom, participants reported relatively low levels of desire to leave the teaching profession. There were no statistically significant differences between the control and intervention group in these results.

Participants in the control group, however, thought about moving to teach in another school district significantly more frequently than participants in the intervention group. Despite this statistically significant difference in thoughts about moving to teach in another school, there were no significant differences between the groups in intent to move to teach in another school and relatively few teachers reported intent to move schools. Thus, there is limited evidence to support this study's hypothesis that participation in a school with a trauma-informed approach to education reduces teacher burnout and intended turnover. While teachers in the control group were significantly more likely to think about moving to teach in another school, one component of teacher turnover, teachers in the control group did not report significantly higher levels of burnout or desire to leave the teaching profession entirely. Therefore, the hypothesis was rejected by the data presented in this study.

These findings may be consistent with other findings about teacher retention in the pandemic, specifically recent research reporting limited to no increases in teacher turnover. While Ingersoll et al. (2018) has consistently observed high rates of turnover among educators in the past decade, previous studies and news reports have reflected concerns over potential pandemic-driven increases in teacher turnover. Studies of teachers in early 2021 found that large numbers of teachers are experiencing pandemic-driven stress and have considered leaving their teaching position or retiring at the end of the school year (Diliberti et al., 2021; Zamarro et al., 2021). These research findings of intent to leave the classroom may not be consistent with actual levels of teacher turnover in the pandemic. One study found that, in Massachusetts, teacher turnover has remained stable in the past five years from 2015 to 2020 and there was no increase in teacher turnover in 2020 in comparison to prior years (Bacher-Hicks et al., 2021). This study further found that, in comparison to prior years, teacher turnover among Black and Latinx educators in the first five years of their career and teachers in schools serving large proportions of low-income students decreased in 2020 (Bacher-Hicks et al., 2021). Studies in other states have also found teacher turnover to be stagnant, or to have even decreased during the pandemic. The states of South Carolina, Colorado, Washington, and Michigan report slightly lower rates of teacher turnover as of the beginning of the 2021-2022 school year (Barnum, 2021).

One potential explanation of the limited pandemic-driven effect on teacher turnover is the economic implications of the pandemic. Though teachers have experienced pandemic-driven stress, including longer work hours, virtual learning expectations, and pandemic stress within their own families and those of their students, they may not have the economic security to leave their current classroom and look for another job

(Diliberti et al., 2021). One teacher in Florida remarked that she determined that she could not leave teaching because of financial constraints, including the necessity of employment for healthcare during a pandemic, and difficulty of finding new employment in the middle of an economic crisis (Barnum, 2021). Thus, despite the high levels of emotional exhaustion, Secondary Traumatic Stress (STS), and burnout experienced by teachers in this research study as well as other national studies, the low numbers of surveyed teacher reporting to leave the classroom or move schools may be explained by economic constraints (Panlilio & Tirrell-Corbin, 2021). As the economy recovers and it is more financially viable for teachers to seek other positions, further research is needed to see if these burned-out teachers stay in the teaching profession.

Trauma-Informed Whole-School Model

The findings from the qualitative portion of the survey suggest that the teachers in this study have generally favorable views of trauma-informed practices and believe that they benefit students but see little effect or implementation of trauma-informed practices for teachers. A significant portion of respondents further report that trauma-informed practices place an additional stress or burden on teachers and many reported frustrations with the way that their administration has implemented trauma-informed practices in their school. These same teachers, however, exhibit signs of burnout, particularly high levels of emotional exhaustion, which is an effect of Secondary Traumatic Stress (STS), the traumatic stress one develops after hearing firsthand of the trauma experiences of another (Abraham-Cook, 2012).

Further, the only statistically significant difference in the data was on the measure of thoughts about moving to teach in another school. Participants from the control group had significantly more frequent thoughts of moving to teach in another school than the control group. The qualitative findings show that many teachers from the control group expressed frustration with their administration, particularly with expectations put on teachers by the administration to implement trauma-informed practices and little access to trauma-informed supports for teachers themselves. This experience may have influenced their thoughts on moving to teach in another school compared to the intervention group, where teachers are employed by schools that were required to implement a Model Trauma-Informed Approach that included trauma-informed supports for teachers by the PA Safety and Security Grant (Pennsylvania General Assembly. (n.d.).

These findings suggest that there is further need for whole-school models of trauma-informed practices, which emphasize trauma-informed supports for students, staff, and educators in all levels of the school environment. A multi-tiered approach to creating a trauma-informed school aims to promote staff self-care and reduce STS and burnout in teachers, in addition to responding to the needs of students who have experienced trauma (Figure 2) (NCTSN, 2017). In previous research, trauma-informed whole-school models have been shown to benefit teachers. After working in this environment, teachers have reported increased self-regulation skills, increased relational abilities, increased use of psychological services, and decreased emotional exhaustion (Brunzell et al., 2021; Kim et al., 2021). Additionally, having a positive relationship with administrators, one vital component of a trauma-informed whole-school model, has reduced feelings of

emotional exhaustion in teachers who work with students who have experienced trauma (Alisic, 2012; Skaalvik & Skaalvik, 2011).

Figure 2
Multi-Tiered Model of a Trauma-Informed School (NCTSN, 2017)
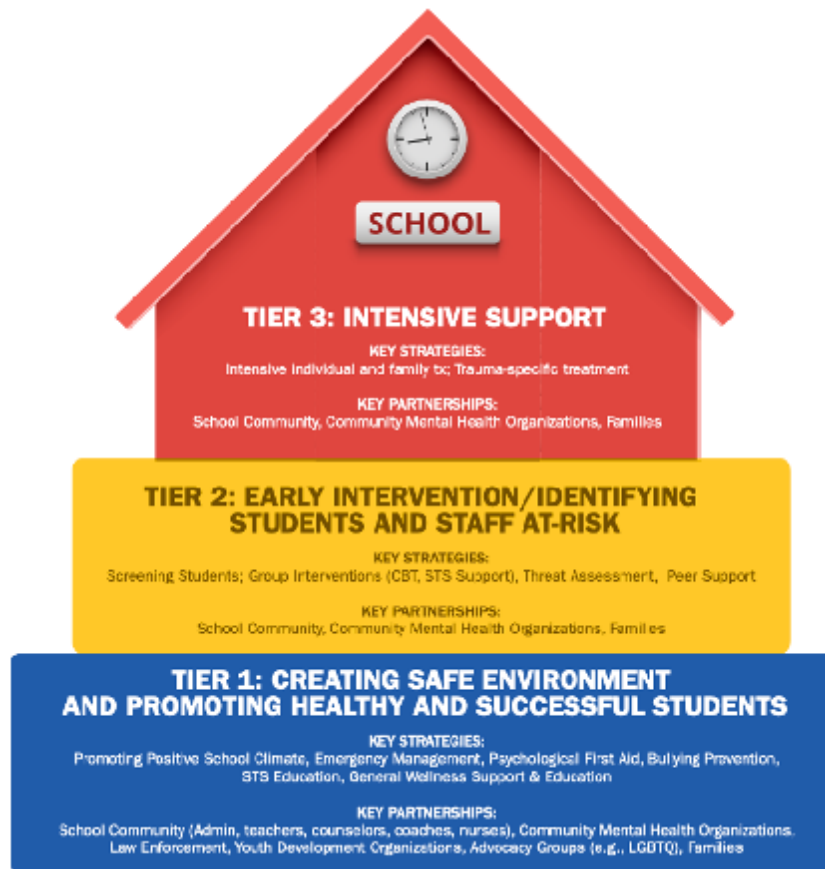
In addition to supporting teachers, previous research has shown that these models are highly beneficial for students. Trauma-informed practices can help students feel safe in the classroom, reduce hyper vigilance to threat, and create spaces for students to discuss their emotions, as well as teach students emotional and behavioral regulation, decision making, conflict resolution, and alternative reactions to stress (Brunzell et al., 2019; Halladay Goldman et al., 2020; NCTSN, 2008; Pawlo et al., 2019). Trauma-informed practices create conditions where students can learn and have been shown to improve student academics, school attendance, and mental health and reduce behavioral issues in the classroom (Berger, 2019; Dorado et al., 2016; Mendelsohn et al., 2015; Shamblin, 2016; Stopa et al., 2011). Thus, trauma-informed whole-school models provide beneficial trauma-informed practices to both teachers and students.

Teachers play an important role for students in disrupting the effects of childhood trauma on learning and development but can only do so when they are best able to practice their own selfcare and are supported against burnout and STS by larger systems, such as a multi-tiered whole-school model of trauma-informed practices.

Limitations

While this study was able to present new information about levels of burnout in Pennsylvania educators and their attitudes towards trauma-informed practices, its conclusions are limited in scope due to the nature of the study. The vast majority of the participants in both the control and intervention group were White, over 40 years old, and taught in suburban schools. The number of participants reporting to be from an historically minoritized community is extremely low. Schools with large populations of historically marginalized, low-income students often have higher rates of teacher burnout and lower rates of teacher retention (Abraham-Cook, 2012; Ingersoll et al., 2018). Thus, the demographic makeup of this sample may have influenced the reported levels of burnout and intended turnover. Future research is needed to understand the relationship between trauma-informed practices, burnout, and turnover specifically in urban schools.

Additionally, the nature of the School Safety and Security Grant may have impacted the results of the study as well. Schools in Pennsylvania could apply for funding to implement trauma-informed practices through the School Safety and Security Grant for the first time in the 2019-2020 school year. Since these funds were only distributed in 2020, school districts had limited time to implement trauma-informed practices prior to the introduction of my survey in Fall 2021. It is possible that the trauma-informed practices implemented in schools through the grant in the intervention group may not have been in place long enough to see significant differences between the burnout levels of the intervention and control group. Additionally, the qualitative findings of this study indicate that many participants in the control group were equally exposed to trauma-informed practices, suggesting that schools have been implementing trauma-informed practices even if they did not specifically apply for the grant do so. As such, it is difficult to isolate the effect of the trauma-informed practices introduced by the School Safety and Security Grant in comparison to the trauma-informed practices that were implemented by schools that did not receive the grant. While this study provides insight into teacher burnout and the need for trauma-informed supports for teachers as well as students, it is therefore limited in understanding the specific efficacy of the PA School Safety and Security Grant.

Implications for Policymakers and School Leaders

In order to be most effective, trauma-informed practices in education must be implemented within a whole-school model to support both teachers and students at all levels. As experiences of childhood trauma continue to be prevalent in America and troublesome high rates of teacher turnover persist, models of trauma-informed practices in education need to recognize the intricacies of supporting children who have experienced trauma and, at the same time, protecting teachers from burnout and STS. The COVID-19 pandemic has only exacerbated these issues of childhood trauma, burnout, and teacher turnover and will continue to as we deal with the ramifications of the pandemic for years to come. Therefore, both legislative policies and school district policies should respond to this growing call for trauma-informed practices and implement them in ways that truly support students and teachers.

In Pennsylvania, incorporating trauma-informed practices in the School Safety and Security Grant program was an important step in recognizing the need for trauma-informed practices in education. Particularly, the requirement of a Model Trauma-Informed Approach to Education is valuable in establishing the expectation of a whole-school model for trauma-informed practices, recognizing support for students and teachers. However, it is clear from the participant responses that few school districts that received this grant money implemented the trauma-informed practices in this manner and provided proficient support to teachers in the process. Additionally, given that trauma-informed practices were one component of the larger School Safety and Security Grant, the school districts that received the grant had discretion to spend the money that they were awarded on trauma-informed practices as well as any other criteria that they applied for, such as surveillance cameras and metal detectors. Therefore, it is difficult to know how exactly the money was used and what proportion of it went to trauma-informed practices. In order to ensure that the trauma-informed practices actually implemented align with those intended in the Model Trauma-Informed Approach to Education, state policymakers can consider pulling the trauma-informed practice funding out of the larger grant and create a separate grant program for Model Trauma-Informed Approaches to Education. Separating the grant program would allow for further specificity in how trauma-informed practices should be implemented and accountability to ensure that the funding is going towards these practices.

Outside of the specific grant program, lawmakers, specifically those in Pennsylvania need to supply schools with the tools that they need to successfully implement trauma-informed practices. This means providing funding for school psychologists, social workers, school nurses and guidance counselors to provide in-school mental health services for both students and teachers. The National Association of School Psychologists recommends school districts employ at least one school psychologist per every 500 students; estimates suggest that the national ratio is currently one school psychologist for every 1211 students (National Association of School Psychologists, 2021). Currently, in Pennsylvania, school districts are required to hire one school nurse for every 1500 students, but there are no such requirements for school psychologists, guidance counselors, or social workers (Pennsylvania State Education Association [PSEA], 2019). Without these vital support personnel, school districts are not equipped to implement the whole-school trauma-informed models that are most beneficial to students and teachers. In 2019, legislation was introduced in the Pennsylvania General Assembly to remedy this issue, requiring school districts to employ one school psychologist per 500 students and one school counselor and social worker for every 250 students (PSEA, 2019). This legislation did not leave the education committee when it was considered in 2019. Based on the findings of this research, the state of Pennsylvania may benefit from reconsidering this legislation to provide the support system necessary to create trauma-informed schools.

Further, policymakers must create a school climate that is conducive to student and teacher success by providing resources both within school and the larger community. This means fully funding school districts to enable them to provide the resources that teachers need to effectively teach their students and implement trauma-informed practices. Numerous teachers in this study recounted the need for more preparation time and smaller class sizes. The state legislature should support policy providing schools with the funding necessary to hire more teachers, make class sizes smaller, and provide teachers with the time that they need to take care

of themselves and get to know their students. Beyond just the school building, policymakers must work to bolster the social supports available to students, families, and educators in order to create a societal structure that is conducive to learning and teaching. Policies such as the Child Tax Credit, which drastically reduced child poverty rates in America before it expired in 2022, can be instrumental in providing these social supports to address the social, emotional and economic needs of children before they enter the classroom (Center on Poverty and Social Policy, 2022). Additionally, policymakers must foster a political climate that celebrates education and respects educators. The current political climate of curriculum censorship, culture wars, and distrust of teachers is not sustainable and is demeaning to the education profession. One teacher described being "heralded as heroes and disregarded as indoctrinating villains" during the pandemic. Teachers cannot teach and students cannot learn if they are constantly berated by community members in politically motivated attacks. Policymakers must be held accountable for creating a political culture that is antithetical to student success and work to support, appreciate, and respect members of the education profession.

School leaders, including administrators and school board members, must additionally create a school climate that listens to and supports teachers. This requires re-evaluating what trauma-informed practices look like for teachers and providing more than self-care memos and professional development. Many of the respondents in this study remarked that these notes about wellness and taking care of yourself are useless, and even more frustrating, if not given the time and mental health resources to do so. Based on the findings of this study, providing teachers with more planning time, especially to incorporate trauma-informed pedagogy in their classrooms, time to collaborate and learn from other colleagues, and resources for their own mental health care will also reduce the intensification of the education profession and the additional demands put onto teachers without the resources and time to execute their jobs. Additionally, to create the trusting relationship that is vital to trauma-informed practices, school districts should reduce class sizes so that teachers are able to get to know each of their students on a deeper level and create the emotional safe space that students who have experienced trauma require. Without these changes to the school environment and structure, trauma-informed practices cannot be implemented in a way that reduces teacher burnout and encourages them to continue teaching in that school, or in teaching in general.

Most of all, however, teachers simply need to have a voice at the table and be a part of the process of creating a trauma-informed school. Trauma-informed practices can be incredibly beneficial for both students and teachers, but this change needs to come through grassroots mechanisms that recognize the teachers' expertise in teaching and caring for students without placing additional burdens on teachers to be the primary source of support for students' mental health. Teachers are not, and cannot be expected to be, mental health professionals. Instead, they need access to mental health professionals to take advantage of themselves and to refer students to. Students cannot learn effectively when they are traumatized, and educators cannot teach effectively when they are burned out. As one respondent said, "If I am not at my best, I worry I am not doing my best for the students." The teacher workforce that we foster directly affects children's growth and learning. Trauma-informed practices in education are a vital component in strengthening that relationship and helping both students and teachers be at their best.

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Recruiting and Retaining a Post-Pandemic Workforce: A Radical Approach

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INTRODUCTION

Without question, the COVID-19 pandemic forced radical shifts upon long standing institutional practices across a wide range of industries, and education was not exempt. As things begin to shift back to "normal" and we assess both the challenges we've overcome, and those still before us, the reformation-minded educators among us have a unique opportunity to redefine what the term "normal" really means within our systems. We have long known that our educational practices and systems could improve, and now is our opportunity to implement value adding changes. Our ability to recruit and retain quality educators - our most valuable resource - is one of our most pressing needs. While the expectations put upon professionals in our field have always been challenging, the education industry has been able to offset those challenges by offering benefits - both tangible and intangible - that proved more desirable compared to a large cross-section of other fields and employment options in our country. Those times have changed dramatically.

Individuals entering the workforce now have a greater number of job opportunities in total, many of which are in desirable fields. Flexible schedules, work from home options, and a focus on culture building in corporate America, coupled with a generational shift in priorities has created a new level of competition for employees. This leaves our noble profession in unfamiliar territory, with a declining number of graduates from teacher preparation programs, and a career that is now more strenuous and demanding than ever before. In recognition of this shift, we examine three immediate areas that our systems can improve upon to increase interest in our profession, and to recruit and retain more talented educators in the process.

FLEXIBLE SCHEDULING

In recent years, school leaders have experimented with adjustments to start times, annual calendars, and daily schedules to help remove barriers between students and their educational needs (Wheaton, et al., 2016). In an effort to make school work for the student, in consideration for students' lives outside of the academic day, and in some cases to save money, many school systems have made significant changes to how, and when, learning occurs (Thompson, et al., 2021). The same cannot be said, however, for our expectations of the faculty and staff in our buildings and how their days are scheduled. Changes to the traditional timing and scheduling of our academic programs will undoubtedly require significant subsequent changes to the way we staff our schools.

While the immediate and obvious solution involves scheduling teachers to start earlier and/or end later, a more progressive approach could include teachers working fewer hours with students, but for a number of days that extends beyond a traditional school year. This would allow schools to run programs during the summer for students while ensuring quality instruction delivered by one of their own educators. The instructional practices that we train teachers on and practice during the regular school year have been

identified as important to student achievement, so why would we abandon them during the summer months with some of our most challenged learners? As a district, the opportunity to provide evening instruction in our virtual programs, or perhaps as a transition program for students coming back from an out of district placement could be the key to keeping students on track to their goals. Instead of suspending a student for five days, they could instead enter into a program - with real, meaningful instruction - that takes place after the typical school day. Whatever the reason, flexibility in the teacher schedule could provide an opportunity to meet a variety of student and faculty needs.

Engaging in more flexible thinking can also support opportunities to recruit and retain second career teachers. Flexibility in the schedule allows the school district to explore part time contract options with expanded offerings. The typical teacher contract is based on a set number of instructional days. Under a more flexible contract, teachers could be assigned based on the number of hours they are scheduled to work per year. Summer camps, extended school year, summer school, etc. or additional credit bearing courses could all fall under the same of a teacher contract providing the professionals with the choice to work when they would prefer to work. Teachers choosing to work beyond the minimum number of hours required for a full-time employee could be subcontracted much the way an adjunct professor is hired at a local university, and paid a per diem rate for courses taught. The key is that educators would not be forced to follow the regular August to June calendar to fulfill their contracted hours each year. Teachers could, depending on the arrangement made, opt to stay on later in the day, or even split their schedule to teach evening courses given this level of flexibility.

A NEW WAY TO FORMULATE BENEFITS

In Pennsylvania, and in many states, the promise of a guaranteed pension has long been one of the greatest tools to encourage young people to enter and stay in the field of education (Liu & Aubry, 2021). Unfortunately, for newer hires, this great promise of a golden retirement after 35 years may not be as enticing as it once was, and many companies in the private sector are offering creative benefits as a compliment to generous salaries. For the local school district, the current retirement system limits the salary levels that can be offered to new teachers, creating a larger strain on district budgets.

If school districts were able to work with the state retirement program to offer a choice to educators, they would very likely be able to save money while still offering a more competitive salary to incoming workers. For example, if the starting salary for a teacher with a Bachelor's degree in their first year of teaching (salary schedule step 1) is $50,000 and the school's required contribution rate to the guaranteed pension system is 30% (in PA it is higher), the district's actual cost is $65,000 for that educator (excluding any additional fringe benefits like medical coverage, FICA, Social Security, etc.). If a candidate were to opt out of the guaranteed pension retirement program, a school district could offer the same teacher $55,000 as a starting salary and

contribute $5,000 each year to a 403b or 401k of that employee's choosing. In 20 years, that would equal over $100,000 in direct contributions to an investment account without the employee having contributed anything to it! With investment returns averaging anywhere from 8% - 12% for managed retirement funds, this plan could be very attractive to a potential employee.

A plan like this creates a potential advantage for both the employer and the employee in a couple of ways. Primarily, it provides the flexibility to separate from the profession if necessary, while incentivizing people from industries outside of education to enter the field as a second career. Every administrator has worked with a veteran teacher who, for whatever reason, has lost their passion for teaching. All too often, we see these individuals staying in the field long after their energy and effort have waned because of a retirement package or promise of being fully vested in a pension plan after a certain number of years of service. If that same teacher had a 403b or 401k they could take with them and continue contributing to another employer, perhaps in another field altogether, they might be less inclined to stay in a position they no longer enjoy. At the same time, it allows the school district the opportunity to make sure their staff is operating at maximum capacity (Johnston, 2022). Additionally, these optional benefits would allow administrators to negotiate salaries and compensation packages for individuals looking to enter the educational field later in their working experience. Offering full benefits and a significant contribution to an already established 401k is more meaningful for many potential employees in the twilight of their working career. With a little bit of creativity and flexibility, it would be possible to open up the field of education to new employees from a variety of experiences and pathways.

MENTORING AND SUPPORT

It has been well documented that nearly half of new educators are looking to leave the profession within the first few years of teaching. This can be attributed to a number of factors, including increased levels of stress, struggles with classroom management, and a lack of support in the classroom (Goodwin, 2019). Administrators simply do not have the capacity to support newer teachers to the level they often need and as a result, new teachers can feel left on an island early in their careers. This is especially concerning, as research indicates that high quality induction and programs designed to support early career teachers have a significant impact on their retention rates and career longevity (Podolsky, et al., 2019). Additionally, many teachers, particularly veteran teachers, feel that they have more to offer the field of education in addition to what they bring to the classroom. They have no desire to enter into administration, but they would like to contribute more to the profession and they certainly have the expertise to do so!

Many high performing countries around the world utilize a tiered approach to their educators, understanding that there should be a ladder between a classroom teacher and an administrator. Imagine a structural system that allows a teacher to move from an entry level teacher, to a teacher leader, to a mentor teacher, etc. Teachers that reach a certain status might teach fewer classes, but would have mentoring and

supervision responsibilities for new teachers. School districts would finally have a way to distinguish between their educators and give stronger value to their supervision and evaluation programs. This provides more opportunities for leadership within your team and, as a principal, the opportunity to truly meet the needs of your staff.

Furthermore, a structured system allows you to utilize your stronger staff to lead professional development. A teacher that holds a certain role could also have the opportunity to teach certain classes for credit. Working with a local university or college, a district could create their own master's program taught by their staff members. This ensures the content is relevant, and reduces cost for the district while allowing you to compensate your veteran teachers. In addition to that, you could have teachers that teach entry level education classes for college, creating a pipeline for students to enter the education field early. The system supports itself, and the quality of educator entering, and staying in your program improves greatly.

TIME FOR CHANGE

As leaders in this profession, we often fantasize about what we would do if given the opportunity to create a structure that is more appropriate to the times we are experiencing in education. As a result of the changes that were forced upon us during the pandemic, and the realization of a significant teacher shortage, there is new urgency along with the opportunity to truly reimagine how education can work for school districts. We can improve the quality of instruction, increase job satisfaction, and make the profession more self-sustaining. These changes will require a unified approach from districts, and the results could be extraordinary. As the pandemic revealed, it is often when the stakes are the highest that we are at our best in education.

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Interactional Diversity: An Institutional Call for Post-Admission Policy Reform

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INTRODUCTION

This paper explores legal considerations related to promoting structural and interactional diveristy in the context of higher education. A critique of landmark cases is followed by practical implications for undergraduate and graduate programming. Historically, institutions of higher education adopted admission practices that utilized race conscious procedures to broaden opportunities for minority and underrepresented students. While institutions reserve the right to adopt race preference programs, they also maintain an ethical responsibility to assess the efficacy of their policies beyond the admissions phase. Efforts to increase structural diversity through enrollment numbers need to be paired with programs that cultivate meaningful interaction across racial backgrounds of the student body throughout all phases of the educational experience. Focusing solely on meeting critical mass indexes without intentional follow up may be considered by courts as an abandonment of the goal (and compelling state interest) of promoting diversity. Therefore, institutions that implement race preference admissions policies are required to keep detailed data on their program outcomes and the efficacy of the admission policies.   Upon meeting critical mass indexes, it appears that there is less emphasis placed on retention efforts as well as sustaining interactional diversity on campuses.

Since colleges that implement race conscious practices have identified racial diversity as a compelling state interest, it becomes imperative to develop programs that target diverse interactions beyond admissions procedures. This paper also explores the other side of the debate, which asserts that race preference programs violate the equal protection clause of the 14th Amendment. Several recommendations are made on how universities may negotiate this sensitive issue to improve the diversity climate on their campuses while narrowly tailoring programs to meet their identified compelling state interests.

LANDMARK CASES

Regents of the University of California v. Bakke

In *Regents of the University of California v. Bakke* a male student applicant alleged that his constitutional rights were violated when he was twice denied admission to medical school (University of California Regents v. Bakke, 438 U.S. 265, 1978). The plaintiff alleged that the medical school accepted less qualified applicants because of the sixteen spaces that were devoted to minority students and that these sixteen students had lower GPA and test scores than white applicants.

The Supreme Court deemed the race conscious policy unconstitutional in the *University of California v. Bakke* (1978) because implementing a quoata system and reserving a select number of seats for minority students was not narrowly tailored to the identified governmental interest. The Supreme Court reversed the lower court's ruling that "race could never be considered a factor in admission programs."

Meanwhile, the university reserved five admission seats for the relatives of wealthy donors, and this policy was not mentioned in the defense of the race neutral arguments in Bakke (Ward, 2021). Rather, in

Bakke (1978), the major argument was that the sixteen seats that were set aside for diverse/minority, and socioeconomically disadvantaged applicants were problematic and unfair to white students (Ward, 2021).

Grutter v. Bollinger and "the Diversity Rationale"

In the landmark case *Grutter v. Bollinger et al., 539 U.S. 306* (2003), the Supreme Court permitted universities to use race as one factor in the admission process in promoting a compelling state interest to diversify the student body composition at the University of Michigan Law School *(Grutter v. Bollinger et al., 539 U.S. 306,* 2003).   The court reasoned that promoting diversity on college campuses is a compelling state interest because it would promote opportunities for disadvantaged groups who have historically been underrepresented in the legal profession. The court also affirmed that the university's efforts to maintain increased numbers of minority students is constitutional and does not violate the 14th Amendment.

The court specified restrictions on these practices and required programs to be narrowly tailored to their compelling state interest of promoting a diverse campus (*Grutter v. Bollinger et al., 539 U.S. 306,* 2003). Furthermore, the court emphasized the importance of evaluating applicants as individuals with race being only one component (*Grutter v. Bollinger et al., 539 U.S. 306,* 2003).   Supreme Court Justice Sandra Day O'Connor placed a twenty-five-year time limit on race preference programs, which are projected for re-evaluation in 2028 (Goodman, 2015).

In the instant case, the plaintiff Ms. Barbara Grutter, a white female applicant at the University of Michigan Law School, filed suit alleging that her 14th Amendment rights were violated when she was denied admission to the law school. The University of Michigan Law School is a highly ranked program that receives an average of 3,500 applications to fill 350 seats. The plaintiff, Ms. Grutter, was a Michigan resident who applied to the law school in 1996 with a 3.8 GPA and 161 LSAT score. Initially, Grutter was placed on a waiting list, and eventually was denied admission at the law school (*Grutter v. Bollinger et al., 539 U.S. 306,* 2003).

To clarify, the LSAT is a standardized test used as part of law school applicant's admission materials. The test has been used for several purposes, including ranking applicants, making selection decisions, and ranking institutions on the US World News Rankings list (Hill, 2019). Institutions are cautioned about having an overreliance on the LSAT in the admssions process as it may promote and sustain racial bias, thereby limiting diversity in the student enrollment (Hill, 2019). Historically, the LSAT has been used as a predictor for student performance despite a historically well documented performance gap in LSAT (Hill, 2019). A standardized test is considered biased if, "the average test score of one population of individuals is signficantly greater than that of another." (Hill, 2019, p. 316).

Highly ranked law schools demand higher average LSAT scores from applicants. For example, Yale Law School, which is the highest ranking law school in the country, has an average LSAT score of 173 (the highest score being a 180), whereas Howard Law School's (an HBCU ranked at 108) average LSAT score is 152.

Grutter alleged that she was denied admission because race was used as a "predominant factor" which causes students from diverse backgrounds to have a favorable edge over white students. In addition, Grutter also alleged that The University of Michigan, "had no compelling interest to justify their use of race in the admissions process" *(Grutter v. Bollinger et al., 539 U.S. 306,* 2003).

In Grutter (2003), the district court found that the law school's use of race in the admission decisions was an unlawful practice. The district court applied strict scrutiny and found that the law school's interest in diversifying the admitted class was not compelling mainly because it was "not a remedy for past discrimination" (*Grutter v. Bollinger et al., 539 U.S. 306,* 2003). Later on, the decision was appealed and reversed in the Sixth Circuit. The appellate court indicated that Justice Powell's opinion regarding diversity rationale was applicable. The appellate court also held that the law school's use of race in the admission's process was narrowly tailored because race was used as a "potential plus factor." The appellate court found that the University of Michigan's admission's practice was not a quota system and used race as one factor in a flexible way (a 'plus factor') in the same manner as a previous case Regents of the University of California v. Bakke involving a medical school applicant.

The Diversity Rationale

Diversity in higher education is a complex phenomena primarily due to the "the diversity rationale" that Justice Powell established in Bakke (1978) which was also re-affirmed in *Grutter v. Bollinger et al., 539 U.S. 306* (2003). The diversity rationale suggests that Higher Education institutions may use affirmative action policies and admissions procedures to promote diversity as a compelling state interest. Following these landmark decisions, institutions have struggled to apply the diversity rationale in different disciplines, including graduate and undergraduate spaces (Noble-Allgire, 2003). Although the landmark cases cited in this paper pertain to graduate level education, the lessons learned from the court rulings may also be applied in the context of undergraduate education. Lower courts also struggle with applying Justice Powell's diversity rationale as a "binding precedent." Justice O'Connor pointed out that diversity in the admissions process has become a compelling state interest that justifies using race in selection process (Noble-Allgire, 2003).

Five Part Test

In Grutter (2003), the court outlined five critieria to test whether a school's policy is constitutional:

1. Does the program offer a competitive review of all applicants without quotas and separate tracks that insulate minorities?
2. Whether the program provides flexible, individualized consideration of applicants to ensure race is only one of several factors being considered.
3. Whether the institution considered workable race neutral alternatives to the program.
4. Whether the program unduly burdens non-minority applicants.
5. Whether the program is limited in time, with a logical end point. (*Gutter v. Bollinger, et al.* 2003).

The Supreme court applied this five-step test in Grutter (2003) and found that the Equal Protections Clause of the 14th Amendment did not prohibit the Law School's narrowly tailored use of race in furthering its goal of diversity for educational benefit (Richman, 2010). In Grutter (2003), the court did not mandate the university to assess the efficacy of their admissions policies. This presents an opportunity for institutions to enhance the robust exchange of ideas and extend diversity programming beyond selection decision making.

In her remarks, Justice Day O'Connor highlights the role that diversity plays in providing educational benefits that extend to the workforce, military, and businesses (*Grutter v. Bollinger et al., 539 U.S. 306,* 2003*).*

Noble-Allgire (2003) suggests two key areas to improve diversity initiatives: 1. A need to diversify faculty at higher education institutions, 2. the need for diversity conscious curricula that create "stimulating and safe environment for exchanging different viewpoints" on campuses (Noble-Allgire, 2003). Faculty training that is dedicated to inclusive pedogogy is also recommended to promote a sense of inclusion and belonging as well as promoting enriching discussions in the classroom.

Structural and Interactional Diveristy

The Sociology discipline classifies two broad diversity categories: Structural diversity and interactional diversity. Structural diversity refers to the numerical amount of minority students represented from racial and ethnic groups in a student body. The second category, interactional diversity, focuses on exchanges between students across racially and ethnically diverse persons, ideas, information, and experiences. The purpose of diversity programs is to mitigate the negative effects of discrimination against minority groups (Blau & Winkler, 2005). This paper focuses on interactional diversity as a compelling state interest.

Achieving structural diversity through college admission is the first prelimnary step. There is a need for institutions to invest in retaining student diversity beyond the admissions landscape. Simply increasing the numbers of minority students to meet a critical mass index is insufficient, and there is a need for insitutions to take more substantial measures to cultivate interactional diversity.

Some institutions have adopted post admission programs that remove barriers to roommates from different races. If institutions fail to adopt post admission policies and programs, this may be construed as a violation of the narrow tailoring prong, which opens institutions up for legal challenges in court (Gurin, 2010). Interactional diversity is the only category that implicates a compelling governmental interest, and therefore programs and policies should focus upon this governmental interest (Gurin, 2010).

Prior studies that explore interactional diversity suggest: "actively engaging with others from a wide variety of socio-structural locations, individuals may come to learn new things and become better prepared to distribute advice to other members of their social circle. Conversation across the intersection of class, religion, race and other characteristics can lead to non-redundant knowledge even when the topic of conversation is not explicitly about knowledge distribution or group differences." (Vargas & Schafer, 2013, p. 47). While it is important to address diversity in student enrollment, the more challenging piece is to infuse meaningful

discussions. This can be accomplished through student forums that are designed to strike dialogues on points of intersection that unite and bring students together. As Vargas and Schafer (2013) suggest, these conversations need to happen organically. When transferring this concept to higher education, these interactions need to take place in the everyday mileu on campuses. This will require careful and intentional choices made by student life, student affairs, and programming units.

RECOMMENDATIONS FOR INSTITUTIONS

Interactional Diversity on Campus

It is imperative that colleges invest in the design and expansion of campus activities that promote interactional diversity. Justice O'Connor stated, "it is necessary that the path to leadership be visibly open." The mere presence of minorities on campus is a start, but this may promote interactional diversity by creating opportunities for engaging students in meaningful activities using anti-racist and social justice oriented approaches (Ward, 2021). On campuses, students of the same racial/ethnic background tend to gravitate towards students that share their background. Similarly, minorities gravitate to one another and form residential communities and fraternities. Some institutions even offer affiliated housing, giving students the option to house with members of their same race. These examples demonstrate that despite structural diversity, colleges have an opportunity to improve interactional diversity through student affairs programming, residential assignments, and curriculum focus. If universities are committed to diversity, and consider it a compelling governmental interest, then efforts must be taken to critically investigate their campuses to determine the extent to which interactional diversity is being promoted in good faith. When institutions conduct their process evaluations, interactional diversity should be carefully evaluated and if the use of affirmative action is narrowly tailored to their identified diversity goals.

Similarly, Richman (2010) explores findings from the University of California Los Angeles that tested out residential arrangements. Namely, positive results were associated with the implementation of randomized roommate assignment to "deliberately mix race and ethnicity of roommates to make sure students don't end up rooming in ethnic enclaves" (Richman, 2010, p. 82). Schools that seek to achieve diverse campuses are cautioned not to focus solely on structural diversity, but instead are encouraged to develop thoughtful, multi-dimensional diversity initiatives (Richman, 2010).

Additionally, randomized roommates is one of the simplest ways a college can promote interactional diversity (Richman, 2010). This method may be an alternative to racially affiliated housing, which is a popular practice at many institutions. Moreover, Yale and Harvard have adopted a method that randomizes roommates beyond freshman year in an effort to minimize racial clustering (Richman, 2010).

Monitoring Campus Climate

Richman (2010) explores post-admission options for schools to adopt in their efforts to promote and sustain diversity. Researchers recommend monitoring campus climate through surveys and interviews with the student body to generate data on interactions across racial groups (Richman, 2010). Survey data could be published in the school newspaper to "dispel negatively perceived images of the racial climate" which would be replaced with the responses from the actual students' experiences. Therefore, Richman argues that schools must do more than just increase racial numbers on campus to meet the goal of diversity.

Diversity Conscious Curriculum

Some faculty members struggle to promote diversity dialogue in their classes (Noble-Allgire, 2003). There is a compelling need for universities to strive to reach Justice Powell's goal of diversity by diversifying faculty, and promoting a learning environment that stimulates race discussions. Instructors may steer away from race discussion due to the discomfort associated with these discussions (Noble-Allgire, 2003). Some students may feel that race is not being discussed enough while other students may feel that too much time is devoted to race discussions. For example, a class may have four students from diverse backgrounds, while the rest of the class from the dominant group, and there is pressure for the four students to testify upon an entire category of people's experience (Noble-Allgire, 2003).

Noble-Allgire (2003) suggests that "Nonetheless, there is a substantial probability that minorities of all cultures, generations, and classes have experienced life in vastly different ways from the majority and, therefore, have formed views that are substantially different from those of their white colleagues" which points to the dangers of tokenism and within group differences.

Cooperative Learning Strategies

Faculty members are encouraged to adopt active learning practices, which studies have linked to enhanced outcomes (Noble-Allgire, 2003). Some schools adopt cooperative learning and group-oriented projects, which encourage students to interact across racial groups in the classroom. Learning communities are also a potential option for institutions to promote interactional diversity. Increasing structural diversity alone will fail to achieve its goals if it is not coupled with student centered teaching and learning. Universities may reward such practices and consider this when evaluating faculty for promotion and tenure. Minority students bring their own experiences to the forefront of classroom discussions, which promotes rich dialogue. Increasing the admission of racially diverse students (structural diversity) also buffers the potential effects of tokenism (Noble-Allgire, 2003). To this end, students of color are encouraged to voice and speak for their own individual experience rather than trying to represent an entire racial group (Noble-Allgire, 2003).

The University of Michigan's law school has adopted a system to admit a "critical mass" of underrepresented students, which they describe as, "a number sufficient to enable under-represented minority students to contribute to classroom dialogue without feeling isolated." (Noble-Allgire, 2003). Some faculty

choose to be silent on issues of race, mainly due to discomfort and potential for students to feel ostracized. Other concerns include physical and psychological harm (Noble-Allgire, 2003).

Benefits of Diversity

There are substantial benefits to promoting diversity in college campuses including engaging classroom discussions, preparing students for the work place, and encouraging differences in ideas, as well as broadening opportunities for minorities (Richman, 2010; Ward, 2021). The educational benefits resulting from diversity on college campuses calls for more intentional programming to retain diverse students. Institutions have a responsibility to promote diverse interaction on their campuses through course offerings, campus activities, and guest lectures and conference panels (Richman, 2010). Furthermore, these benefits are exactly the factors that are used to support the institution's compelling governmental interest.

If institutions are to rely solely on the diversity rationale from the Grutter case, these institutions will inevitably open themselves to legal battles due to their failure to formulate post admission strategies to cultivate diverse interactions, which questions the sincerity of the institution's compelling interest for diversity and the "narrow tailoring" of their programs. (Gurin, 2010).

Having a diverse campus offers several benefits including rich classroom discussions, preparing students for the workforce, and provides students with a wide range of perspectives that would not be possible in a homogenous environment (Richman, 2010). Therefore, diversity and affirmative action make important contributions and the benefits are reaped by everyone involved including the institution and the student body.

Another legal consideration is whether there will be a need for affirmative action in 25 years from Grutter (2003) (Richman, 2010). Justice O'Connor placed a 25-year time limit on racial preference policies in *Grutter v. Bollinger et al., 539 U.S. 306, (*2003), which lapses in 2028. In her remarks, Justice O'Connor's provided characteristics of a "properly devised admissions program" (Richman, 2010). Beyond race, the Michigan Law School took into account the applicants' personal statements, letters of recommendation, and essays describing contributions towards diversity at the Law School, which Justice O'Connor cited as being narrowly tailored to the University's policy to its diversity goals. Additionally, the minority applicants were qualified and race was used as a mere plus factor (*Grutter v. Bollinger et al., 539 U.S. 306,* 2003).

Furthermore, Justice O'Connor clarified that narrow tailoring does not mean exhausting every race neutral option, but rather that institutions exemplify serious good faith consideration of race neutral alternatives to achieve diversity (Richman, 2010). Justice O'Connor reasoned that a 25 year time limit on the ruling is necessary to re-evaluate to prevent governmentally imposed discrimination based upon race. According to Justice O'Connor, race conscious admission policies must have an expiration date, which she referred to as the "termination point."

The Color Blind Approach

The color blind approach applies a post-racial lens (Nguyen & Ward, 2017) and assumes that we live in a post racial world, and the negative effects of racism have already taken course, therefore there is no need for race conscious admissions practices. However, the Supreme Court Case Fisher v. University of Texas at Austin, ruled that race conscious admission practices are valid and permissible (Nguyen & Ward, 2017). There have been cases against Harvard and University of North Carolina in a movement to eliminate race from college admission practices. The American Psychological Association (APA) dispels this notion that we live in a post racial world and that racism is real and rampant in society. The APA filed an amicus curie brief to support the University of Michigan's position in the case of Grutter v. Bollinger (2003). The APA cites three elements in their brief: 1. "Research shows that racial and ethnic discrimination and prejudice persist in American society;" 2. "Research also shows that many people who believe themselves to be free of prejudice actually harbor attitudes that can lead to subtle discriminatory behaviors;" and 3. "Research shows that such underlying prejudice and stereotyping may be ameliorated through contact between students of different racial and ethnic backgrounds." Finally, the APA's brief concludes that diversity in higher education will promote cultural competence (Brief Amicus Curie of the APA in Support of Respondents. Nos. 02-241 & 02-516).

Race Neutral Alternatives To Affirmative Action

Historically, three states banned affirmative action policies, namely Texas, California, and Florida (Richman, 2010). Instead, these states devised "state mandated percent plans" as race neutral alternatives to affirmative action (Richman, 2010). The percent plans guaranteed admission to a public state university for students that graduated in the top designated percent of their class in public or private accredited high schools. Richman (2010) suggests that percent plans must be consistently evaluated for their effectiveness citing evidence from Washington, Texas and Florida that demonstrates that percent plan policies were ineffective. Namely, California and Texas experienced significant declines in their minority enrollments after banning affirmative action admissions (Richman, 2010). The University of California, Berkley saw a 66% decrease in African American enrollment, and Latinos dropped by 53% (Richman, 2010). Moreover, The University of California at Los Angeles and the University of Texas at Austin both experienced significant declines in minority enrollments after adopting the policy, which resulted in an average of 33.8% decliine in minority enrollment rate after the first year of the ban on affirmative action policies (Richman, 2010).

In 2003, Texas was forced to lift its ban in light of the Grutter decision. In short, Richman (2010) suggests that race neutral programs that were explored in the past have failed. Richman (2010) posits a critical question: "Will race based admission policies still be necessary to achieve diversity 25 years after Grutter?" The United States population is projected to grow more diverse by 2050 due to increases from immigration and birth rates (Richman, 2010). In 1996, the white population was 83%, researchers project that minorities will rise from one in every four Americans to one in every two Americans by 2050 (Richman, 2010). Therefore, the dramatic increase in minorities aligns with Justice O'Connor's prediction, that in 25 years, there will be a much

larger applicant pool of minority students, which would thus minimize the need for affirmative action policies.

Richman (2010) also points out the differences in minority students SAT performance, the underperformance of minorities in suburban regions, and an underrepresentation of blacks and Hispanics in Elite schools across the country. Race-based policies maintain a compelling government interest in promoting diversity and "this shift will only be possible if more is done over the next twenty-five years than for colleges to simply throw diverse students into the same environment and hope for the best"(Richman, 2010, p. 95).

Higher education institutions need to formulate concrete plans to promote diversity after admissions and move beyond critical mass indexes. Instutitions should be concerned about improving the quality and quantity of interactions between races on campuses while documenting their rationale and approaches. Process evaluations are imperative for tracking the effectiveness of each institutional plan, which will also support potential legal challenges in court, and produce an evaluating mechanism that is specific to the institution.

Race Neutral State Percent Plans

Long (2003) suggests that race neutral alternative percentage plans used in Texas, Florida and California place emphasis on class rank. However, Long (2003) points out shortcomings of this approach, mainly that if a school is not racially diverse, the minority students may not make the top percent, and this would inhibit their chances of securing admission to a state or public university. One alternative to affirmative action is to make changes to the criteria used in admission decisions. Percentage plans emphasize one measure, class rank, but institutions could change the weight of factors like standardized test scores (Long, 2003). Colleges could "discount factors that are negatively related to race while elevating activities positively correlated with race." (Long, 2003, p. 33). This approach permits colleges to adjust the weight for each application component.

Class Versus Race Based Affirmative Action

There are distinctions that need to be made between affirmative action programs by class versus race. Students may be members of a racial minority, but they may come from affluent backgrounds (class). Schwarzschild (2013) cites a cogent example of President Barack Obama, who was asked about how he would classify his two daughters, he explained that his daughters should probably be treated as advantaged, even though they identify as blacks. Schwarzschild (2013) warns about the dangers of racial preference and suggests that class preference would be more equitable than racial preference admission policies. Schwarzschild (2013) indicates that affirmative action based upon race includes minorities coming from affluent families who enjoy more privileges. As a result, individuals from high socioeconomic backgrounds would be further advantaged while students from economically disadvantaged backgrounds would be further disadvantaged. Schwarzschild (2013) argues that affirmative action based upon class would be "a more direct and a more consistent way of

achieving it" (p. 447).

Limitations to Critical Mass Index

During Grutter (2003), Justice Scalia raised an important question: "How much diversity is enough?" which hints at the ambigious critical mass index. Studies have shown that diversity encourages stimulation that cannot be achieved with a homogenous class composition (Richman, 2010; Ruiz-Mesa, 2021, Schwarzenthal et al., 2020). Additionally, students are more likely to engage with students from diverse backgrounds as the structural diversity on the campus increases (Richman, 2010). Richman (2010) cites a Harvard and New York University study that found that racial prejudice arises from a fear of the unknown. By increasing the structural diversity of the student body, institutions create opportunities for positive exposure to people from other races, which leads to a more enriching student experience. Richman (2010) suggests there are tremendous societal gains that may result from diversity on campuses. However, the experts, the courts, and insitutions of higher education have not identified a magic number to achieve diversity (Richman, 2010). Homogenous campuses limit opportunities for cross-racial interactions, which also may lend to tokenism of minority students, who may be called upon to testify on behalf of the experience of their racial/ethnic group.

Richman (2010) shared an anecdotal scenario that she had with students at a homogenous black school. She asked her students if they would leave their underfunded school with classrooms housed in trailers, few Advanced Placement courses, and little to no college advising to attend a predominately white school that will increase their chances of getting admitted to a university. However, the only trade off would be that only 10% of the students at the new school would be black. Six out of the fourteen students present in her class volunteered to switch schools. She then changed the scenario to 5% of students at the new school would be of the same racial group, and only two out of the fourteen students volunteered to attend. Richman's scenario demonstrates an important factor pertaining to the critical mass issue, namely that minority students may be hesitant to enroll in a campus where they do not feel represented, and students would "sacrifice academic opportunity for comfort" (Richman, 2010).

Therefore, it is crucial for universities to extend beyond admission practices and creating plans to sustain the diversity on campus post-admission. Richman (2010) suggests that many schools ignore the issue of diversity after the admissions process. Furthermore, increasing the percentage of diversity admissions alone does not guarentee diversity at institutions (Richman, 2010). Ongoing review of insitutions policies and their effectiveness is indicated.

CONCLUSION

In conclusion, diversity and inclusion in higher education is a controversial issue with high potential for legal ramifications. Universities have adopted race preference policies and practices in their admission procedures to promote diversity as a compelling state interest. Institutions assume the responsibility of narrowly tailoring their programs and policies to achieve a compelling interest beyond critical mass indexes.

Historically, universities have placed more emphasis on increasing structural diversity, without placing that same conviction towards programs to retain and enrich the student experience post-admissions process. Several recommendations have been made for institutions to diversify faculty, utilize race conscious curricula, and train faculty on inclusive pedagogy. Encouraging intentional interaction across races by random assignment of roommates is also recommended. Race conscious curricula with an anti-racist lens may help cultivate positive interaction across racial backgrounds. Moreover, increasing diversity among faculty is an area that has great potential to improve interactional diversity on college campuses. Minorities may have an easier time contributing to discussions and feel more validated by diverse faculty members. Affirmative action programs should also be formulated with attention given to socioeconomic status and economic disadvantage, instead of solely on race, as this would be more equitable and promote opportunities for students from disadvantaged backgrounds.

Finally, institutions should consistently monitor campus climate and gauge diversity interactions across races through surveying both students and faculty. Collectively, these recommendations may help protect an institution from future legal dilemmas regarding the constitutionality of their programs. Justice O'Connor placed a 25-year limit on affirmative action admission practices and thus the issue is ripe. It has been suggested that with immigration patterns and birth rate increases of minorities, minorities will become the majority, which will minimize the need for affirmative action programs in the future. At the present time, universities that use race in their admission practices have ample areas for improving the narrow tailoring of their programs. Institutions are urged to place forth the same conviction towards structural and interactional diversity. Diverse interactions in undergraduate and graduate spaces will better prepare students for real world experiences they will encounter broadly in society and the workforce.

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Innovation and Critical Thinking in Higher Education: Studying Adolescent Mental Health Through Interview Analysis

Nancy Morris, Ph.D.

AN INNOVATIVE APPROACH TO STUDYING ADOLESCENT MENTAL HEALTH

Education scholars and policy makers agree that teaching critical thinking is a challenging, yet key skill for students in higher education to master (National Education Association [NEA], 2010; OECD, 2018). Dekker (2020) describes that critical thinking is best taught through "engagement with multiplicity" (p. 3). This requires students to confront different ways of looking at problems to learn perspective taking. They then use this strategy to evaluate their options and come to a reasoned solution (Dekker, 2020). In addition, students need the opportunity to engage in dialogue and be exposed to "authentic or situated problems and examples" to positively affect critical thinking skills (Abrami et al, 2015, p. 8, as cited in Dekker, 2020).

When college courses utilize only traditional lecture of assigned readings, discussion, and group work, this only exposes students to analysis at a text-based level. In the education field where the environment is transforming daily, texts cannot keep up with changing conditions. Teacher candidates can read about a case study or theory, however there is nothing more authentic than hearing educators' lived experiences. I am a university professor who has taught in the classroom and online prior to and throughout the pandemic in a teacher preparation program. I am preparing my teacher candidates to enter an environment in which the pandemic has had a significant effect. In order to best prepare my students, I want to make my courses the richest and most real for them. To achieve this, I strategically focused on a project that would foster critical thinking, application, and student-centered pedagogy.

This past spring of 2022, as part of a new course I taught in adolescent development, I decided to bring in three current middle level and secondary teachers, an instructional coach who works directly with students and teachers, and one secondary administrator, as virtual guest speakers to speak on how the pandemic has impacted adolescent development and mental health in their students. I believed that this active engagement with current teachers would most benefit my students and support their analysis and further application of our course readings to their lives. My hope was my students would critically analyze the topic of mental health and how it impacted adolescent development more in depth than simply through our readings and class discussions. The dialogue and discussion of how each guest approached challenges caused by the pandemic produced a rich learning experience that would not have been possible through traditional text analysis.

IMPACTS ON ADOLESCENT DEVELOPMENT AND MENTAL HEALTH

The COVID pandemic has had lasting effects on individuals, families, and systems. Not one person has been unaffected. The physical, mental, and emotional toll it has taken on individuals in the education system has been especially significant. Research on COVID's impact on young children's cognitive and mental health concludes that social restrictions, isolation, school shutdowns, and other pandemic mitigating measures have contributed to increased levels of stress and severe anxiety or depression in parents and children (Araújo et al,

2021).   This research can be related to the occurrence of adverse childhood experiences, as the more adverse the experience the greater the risk of developmental delays and health problems in later adolescence and adulthood (Araújo et al, 2021). Both early childhood and adolescence are critical periods of development and have not been immune to the consequences of the pandemic.

Adolescence is a critical period of cognitive, social, and emotional development. The prefrontal cortex further develops, bringing with it a stronger ability for adolescents to reason, make judgements, and better control impulses. Adolescents are also coming into their own, developing their identities and sense of self, and becoming more socially and emotionally mature (Arnett, 2017). This is typical development that should occur. Disruptions such as the pandemic throw a wrench in typical developmental experiences and can delay normal skill development.

In a systematic analysis of sixteen quantitative studies conducted in 2019–2021, Jones et al. (2021) found that adolescents experienced higher rates of anxiety, depression, and stress due to the pandemic and increased their frequency of alcohol and cannabis use. Adolescents who had good social support at home, positive coping skills, and active parent-child discussions fared more positively and maintained stronger mental health amidst the pandemic crisis (Jones et al. 2021).

The pandemic has unearthed several disparities among student marginalized groups as well as widened the achievement gap among student groups. Academic growth has been negatively impacted in reading and math, showing signs that some students may be falling behind pre-pandemic levels (U.S. Department of Education, 2021). Students have lost regular access to "affirming student organizations and supportive peers, teachers, and school staff. These students also are at an increased risk of isolation and abuse from unsupportive or actively hostile family members" (U.S. Department of Education, 2021, p. 5).

STUDENT RESEARCH PROJECT

This issue is actively unfolding in schools where my teacher candidates are completing field experiences. I wanted to better prepare them for what they will encounter in schools and to support their analysis of the course's curriculum. To address this need, I designed and launched an interview analysis project in the spring semester of 2022 to help my students learn how the pandemic impacted middle and high school students. As a culminating assessment of the project, teacher candidates analyzed guest speaker interviews conducted over Zoom and formed conclusions on implications for students and the education system as a whole.

The following methodology, analysis, and implications are the product of student work from the video interviews.

Methodology

Participants for the interviews were chosen through purposeful sampling. I reached out via email to former students and graduates that I knew were currently working in middle and high schools. I explained the task and obtained their written informed consent for the interviews prior to beginning to be recorded and for their answers to be used in future research publications. They have each been assigned a pseudonym as identified in Table 1.

Table 1

Participant information

Name	Job title	Gender	Residence
Michael	STEAM Instructional Coach	Male	Chicago, IL
Amy	6th Grade Language Arts Teacher	Female	Erie, PA
Jay	6th Grade Math Teacher	Male	Cochranton, PA
Jeremy	Administrative Officer	Male	Erie, PA
Hallie	Middle School Emotional Support Teacher	Female	Erie, PA

The students and I conducted responsive, semi-structured interviews (Patton, 2002) during class via zoom. We asked each of the guests to answer the following questions, and then teacher candidates had the opportunity to ask follow-up questions as they saw fit. Interviews lasted 30 – 45 minutes. The three standard questions each guest answered were:

1) What are you seeing in your classroom regarding changes your students are dealing with? How have they been affected mentally, emotionally, and physically?

2) How have your last two years of classes been different than previous ones?

3) What are the biggest challenges you see them going through related to their development?

Instead of simply listening to the guest speakers, I wanted my students to analyze and dig deeper into our speakers' responses. I wanted my students to become qualitative researchers. As part of a final culminating project, students learned how to analyze interview responses, identify underlying themes in the responses, and finally discuss their own conclusions and implications to educational practice. During the interviews, they took notes on interview responses and worked to capture direct quotes. All the interviews were conducted over Zoom and were recorded and could be reviewed if needed. Using qualitative data such as this, consisting of participant "experiences, attitudes, beliefs, and thoughts" (Patton, 2002, p. 22) allows the teacher candidates to access the perspective of the person being interviewed (Patton, 2002). It provides fresh commentary on the topic as the guests experienced firsthand the effects of pandemic.

After the interviews were conducted, I placed all the students in my class into groups of four to five people. Together, they reviewed their notes, began to identify information that answered the three research

questions, and began to color code and categorize these answers. Once the initial categorization was done, as a group they had to pull the information together further and create three to four overall themes that captured the main message and lessons from the guest speakers. This approach mirrors the inductive approach described by Yin (2014) where data is analyzed from "the ground up" (p. 136). They then created presentations to highlight their findings and presented them to the class on the last day of finals week. It was incredible to see how much the students connected and drew from what the guest speakers said.

My colleagues and I have found that completing this type of inductive reasoning requiring students to draw new conclusions from textual evidence analysis is challenging for undergraduates, and specifically our own pre-service teachers. Students often revert to summarizing and restating facts instead of forming new ideas and synthesizing information. This exercise was excellent in supporting the development of their higher-level reasoning and analysis skills, while experiencing a taste of qualitative research, a relatively new concept for students. This allowed them to move beyond the text and draw more from firsthand experiences. Working in social groups allowed for students to engage in dialogue and construct new learning together. Dekker (2020) describes that this act of social group work facilitates problem solving, conflict resolution, interacting and being exposed to multiple beliefs and perspectives, and ultimately critical thinking. It also made the act of qualitative research, something relatively new to them, less threatening.

Student Findings

Each group presented their own conclusions and identified original themes and implications. For this publication and to provide a more holistic and cohesive report, I synthesized student work to discover the most prominent themes. I was pleased to discover that the prominent themes identified by the teacher candidates aligned with what is present in the literature.

Themes encompassed K-12 student social, emotional, and behavioral development, and how inconsistencies brought on by the pandemic negatively impact students' lives and affect their academic development. Students found that the pandemic caused instability in the external classroom environment as well as internally with student's mental health (Sapienza & Masten, 2011). One student group specifically noted that the lack of structure during the pandemic resulted in student problematic behaviors and immaturity. On a positive note, however, as a result of the pandemic, social emotional learning has been implemented more into classrooms to assist students in managing changes and interruptions in their environment. When comparing pre-pandemic conditions to the present day, another group concluded school was a very different atmosphere, where students have lost motivation (Klootwijk et al, 2021) as well as previously learned academic and social skills (Salmela-Aro et al, 2021). The pandemic has seemed to unearth inequities and gaps in very needed programming for students. Schools have begun to address these inequities by implementing programming. In a way, the pandemic has accelerated the need for this to be addressed sooner than it may have naturally (Simon, 2021).

Below are results from students' analysis and evidence to support their conclusions.

Theme 1: The lack of structure during the pandemic has resulted in problematic behaviors, immaturity, and delays in academic skills.

One group noted that adolescents feel scared to be in and out of school because things are changing so fast. Middle school and high school students do not have appropriate coping mechanisms, and as a repercussion, students are engaging in dangerous and harmful behaviors. Intrinsic motivation has lessened, and students are not as engaged in wanting to continuously learn and collaborate. Michael noted that the "Biggest change was that they physically cannot control their bodies anymore. They are acting younger than their age." Amy agreed that her experiences are similar and said, "They have not learned how to act their age yet, they are still behaving as they were prior to the pandemic. They do not remember how to act in school, in the hallways, cafeteria, classroom. For example, students who are in sixth grade left halfway through fourth grade and are still acting like fourth graders."

Hallie noted that the inconsistencies in student skills in the classroom make it very difficult to teach and reach all students. Lack of resources at home add to the discrepancy and gaps. Jeremy noted that lack of engagement during virtual learning only widened the expectation gap for students in performing where they should be.

Theme 2: Because of COVID-19, social emotional learning has been implemented more into classrooms to assist students in the everchanging world we live in.

Students would all benefit from instruction and integration of social and emotional skills, life skills, and executive functioning skills into their school day. Students are two years behind mentally, emotionally, and socially because of the unstable learning process during Covid.

Teachers need to teach and reteach coping strategies as a priority. Hallie mentioned that at her school "The students are currently lacking major social skills and that teachers need to take time to reteach social skills before they are able to successfully teach content." Michael concurred that he observes students failing to demonstrate self-control and age-appropriate coping skills. He says, "Coping strategies are nonexistent. Small incidents like spilling a water bottle is the end of the world."

Theme 3: Emotional immaturity and the trauma of the pandemic has created a massive mental health issue in the school systems of today.

All the guests spoke on mental health related challenges. Jeremy began by stating, "Related to mental health, there has been a drastic increase in students who have experienced anxiety, especially with the onset of the pandemic. Due to decreased social interactions and increased online-learning, many students have not been themselves as they had been in previous years." Hallie noted that student mental health should have been a priority all along, however, now the pandemic has uncovered how much it truly has been neglected. Amy

stated that, "Teachers are now acting as unqualified counselors because they are constantly helping students in ways that they have never done before." Jay summarizes all the guest speakers' thoughts when he noted that, "Students have not experienced a normal school year or consistent schedule. There were constant quarantines, absences, or new mandates made that caused students to become accustomed to these strange ways." Hallie says it best in a quote that many students included in their presentations, "Part of teaching the student is teaching the person first. If students are feeling unsafe or unsupported, they are not learning."

Teacher Candidate's Implications for Practice

Each group had to reflect on their data analysis of the interviews and then identify the implications for educational practice. Groups concluded that social emotional learning was a critical component to school curriculum that had been missing in many schools until now. Moving forward, it needs to be a key part of the everyday curriculum. As educators, they need to focus first on student wellbeing before academics. They recognize there are achievement gaps, however, students are not at fault. Our teacher candidates note that things will not just go back to how they used to be, and that is irresponsible to think so. Teachers need to meet students where they are and help them get to where they need to be, at their own pace and in their own time.

Candidates also concluded that teachers have to be able to respond to adversity and support students through it. This skill involves a duality of being proactive and preventative in providing instruction, services, and support to students, as well as being responsive and changing course as new needs or challenges emerge. The ability to be flexible is key. Candidates also noted that just as school should focus on social, emotional, and mental well-being for students, that teacher mental health cannot be forgotten as well. Lack of mental health supports will negatively affect teacher and student relationships and ultimately create more challenges to deal with.

When asked to reflect on the experience the teacher candidates had many positive comments and reviews of the experience. They enjoyed exploring the topic of mental health and hearing from the teachers first-hand. They noted the interviews were eye opening. They made the information real and come to life and gave them insight on what to expect going into the classroom. Teacher candidates used learned information and applied it to their own field experiences. Many noted they liked the focus on current information and that it helped to expand their knowledge of what it means to be a teacher.

The pinnacle aspect of this assignment was within a group's presentation they all shared how this project has impacted their teaching philosophies. They entitled these, "Moving Forward." One student said, "My teaching philosophy in response to the mental health crisis in schools across America is to teach students to be people first, students second." Another student noted, "My teaching philosophy in response to COVID-19 and the mental health crisis in students is to provide a learning environment that students feel accepted and celebrated so that they can achieve their full potential through the use of equity and opportunity." A third explained, "My teaching philosophy is to make sure students' needs are always met and they always feel safe and wanted in my classroom." The last group member noted, "My teaching philosophy is to make sure that

students have an open, honest, and safe environment where they can grow, and develop as individuals."

Limitations

Limitations to this study include that only student written permission and guest speaker permission to participate was obtained, not IRB approval. This study represents a small sample of interview responses from practicing teachers, with all but one in a northeast state. All were alumnae of the university and graduated from the teacher education program or graduate program. It would be beneficial to continue to replicate the study with a larger sample of teachers from a variety of positions across the United States.

REFLECTION OF PRACTICE

My goal is to prepare my students to become future teachers that embrace growth and approach each experience as a learning opportunity. This assignment demonstrated how these teacher candidates are well on their way to becoming thoughtful and reflective teachers that will support their students through academic and personal adversities. I am proud of the teachers they are becoming and excited for them to begin their journey in their classrooms. This instructional activity rooted in student centered pedagogy will be revisited and revised for spring 2023 when I teach the course again. I believe it proved to be a beneficial and innovative way to present material and engage students in the act of research, evaluation, social learning, and higher order thinking. This pedagogical strategy of interview analysis and connection back to theory and research is one that is often saved for graduate students. I have found after conducting this research project that undergraduates are capable of participating in this level of analysis. I believe that exposing them to this process early is beneficial. Using a gradual release of scaffolding, supports, and guidance, I can support their learning process and can prepare them for more independence and higher-level analysis later on in their studies. The concept of interview analysis is one that could be applied to other social science disciplines with the same positive results. I hope this summary can inspire others to attempt out of the box practices in their classroom and to go beyond what is comfortable and known. Our students will rise to the level that we set for them. We just have to help them jump.

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