Culture, Education, and Future

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CONTENTS

A Policy on the Use of Artificial Intelligence in Publication

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Recently, journal editors (and academics generally) have become aware of a breakout headache, or perhaps a breakout boon they need to confront: Artificial intelligence, AI—specifically Chat GPT. This technology first appeared on November 30, 2022—about a year ago—and is already a major concern and attractant for academics and higher ed students. University faculty (and I suspect high school as well) are alarmed particularly by this new tool's implications for student plagiarism, but there is even more than that to be concerned about, as we will discuss. Academics and publishers have similar concerns about publications. I and the other editors of *Culture, Education, and Future* (*CEF*) are troubled by the potential unintended consequences that Chat GPT will have on the quality and depth of research in our field.

Chat GPT is a generative AI algorithm or a program that can create something new, such as art, music, or written documents. Chat GPT generates the latter, of course. Thus far, most of the literature about Chat GPT is aimed at student cheating. Fortunately, the problems of using AI with students are similar to those related to faculty who may use it; thus, the student material is helpful.

Chat GPT is easy to use—one merely submits a carefully conceived request, and it produces a well-structured and academically sounding paper, one that can appear publication-ready. And herein lies the first of the issues. The product of this AI tool reads like a scholar has written it, making it difficult to detect. Careful scrutiny may detect the fake—there are errors and writing that are atypical of an author--for example. "May" is the keyword, however. False positives and negatives are common, even with software detectors (McMurtrie & Supiano, 2023).

AI will not likely be helpful for writing the design, findings, or conclusions section for papers, but scholars will quickly realize its potential for structuring and writing an introduction and literature review and for finding references. Such applications could reduce the drudgery of extensive literature reviews and reviewing related references. But our immediate reaction is that using generative GPT used for such purposes is like having someone else produce papers for the author. It's plagiarism, and as Hicks (2023) said in the title of her article on this subject, "Chat GPT cannot be your research assistant."

AI-generated scripts are not produced by humans; more particularly, they are not written by the claimant to authorship. Plagiarism is an explicit claim of authorship for something one did not write. The person who summons text from generative AI only conjures that script rather than writes it. So. is using material from Chat GPT plagiarism? Of course, it is.

It is plagiarism in yet another way. AI programs scan potentially millions of information sources for material related to the prompts given it. It compiles this information into ordered, human-sounding text (Hicks, 2023). In the process, it may use direct quotes without attribution (Covington, 2023). And it frequently makes mistakes. Again, this is plagiarism; rather, it is plagiarism of a text that is itself plagiarized or misrepresented.

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Typically, one avoids plagiarism by recognizing work done by others. Two possible ways of accomplishing this for AI input have been proposed in the literature (Martínez-Ezquerro, 2023). The first is to include the AI program as a co-author to the paper. Critics argue, however, that co-authors are scholars who make substantial contributions to four writing processes: conception, design, execution, or interpretation of the study (Martínez-Ezquerro, 2023). The *Publication Manual of the American Psychological Association* (APA) similarly states that co-authors make "Substantial professional contributions [that] may include formulating the problem or hypothesis, structuring the experimental study design, organizing and conducting the analysis, or interpreting the results and findings" (p. 24). Obviously, generative AI does none of these. Its contribution might be significantly useful, but computers and computer programs are not able to conceptualize and understand (Shen et al., 2023). It is, at its root, a mechanical processor of information and cannot qualify as a co-author.

Secondly, some have proposed that generative AI programs, when used, be recognized in a disclaimer section along with their specific contributions (e.g., developing the literature review (Martínez-Ezquerro, 2023). This addresses plagiarism and authorship dilemmas but fails to address another issue, that of endemic and collateral human error.

We turn to this now. As stated earlier, the operational strategy of generative AI programs functions by compiling and collating information, and this is problematic in ways other than breeding plagiarism. These programs fill gaps in information with "educated" guesses, which often leads to factual errors (Covington, 2023; Hicks, 2023; Shen et al., 2023). In fact, Chat GPT warns about such errors on its introductory page. Similarly, Chat GPT sometimes creates bibliographical entries by fabricating them from existent material (Hicks, 2023).

Such errors are problematic at their face value, but they are also problematic in more subtle ways. As a reviewer myself, I have noticed that scholars aren't always careful to check the pertinence or even the factuality of their references. Dependence on AI may further exacerbate this academic laziness. In particular, we are concerned that dependence on generative AI can foster failure to develop the in-depth expertise needed to write creatively and with insight about a topic, depending instead on the "expertise" of AI (Hicks, 2023). When authors do not demonstrate deep knowledge of their subject matter and are not familiar with the content of references, they will fail to see flaws in the logic of their arguments, will be unlikely to see possible creative directions their topics could take, and certainly would fail to identify errors or non-existent references in AI produced manuscripts.

Weak knowledge of a subject matter is generally evident in a manuscript and easily picked up by informed reviewers, but AI-generated manuscripts are written authoritatively and may deceive reviewers into thinking the citations are conclusive. If journal editors and reviewers, then they will be burdened with more carefully scrutinizing references and conclusions. If they fail to catch or neutralize such problems, then well-written but inferior scholarship could seep into mainstream thinking.

Were these issues not problem enough, Chat GPT currently does not access academic material more recent than 2021 (Hicks, 2023). Without independent expertise from the author, important references would be overlooked.

Due to these issues, it is the policy of the editors of *Culture, Education, and the Future* to reject any paper substantively aided by generative AI software. Further, if any manuscript gets past us and we discover the mistake later, it may be rescinded. We are using detection software that tags manuscripts suspected of using AI in substantive ways, but since such software is prone to error, we will consult with authors prior to rejecting or rescinding any paper.

We hope that authors interested in publishing in *CEF* will share our concerns, which we feel are threatening to the credibility and substantiveness of academic research. AI technology is likely the future of writing and scholarship; however, we will seek ways that generative AI can be integrated into academic research. New versions of generative AI programs are under development (Chat 4.0, for example, was recently

released). Further, there is considerable thought being devoted to how the technology might be applied in the education of students and in publications, and these ideas could very well inform researchers in their quest to produce excellent, informed research. We will track these developments, and we welcome papers from academics that inform our efforts.

We will also modify our policy on generative AI as more is learned about the issues associated with generative AI and as technology advances. We will not, however, compromise our commitment to rejecting plagiarism, to research quality, and to human control of the content of scholarly work.

Declarations

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The Dynamic Dance of Nonviolence in Education: Embracing Tensions and Embodiment in Critical Times

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Abstract

The lack of attention to nonviolence in education is highly problematic, and this article elaborates nonviolence as a new direction in a time of crisis. First, nonviolence is conceptualized as holding tensions to contest violence and cultivate nonviolent relations in the everyday praxis of education in both inner work and outer work in engaging social differences. Second, an aesthetics-based approach at intrapersonal, interpersonal, and transpersonal levels is introduced to address violence and nonviolence in curriculum. Third, we conceptualize how embodied living and mindfulness are crucial components in understanding and practicing nonviolence. This article brings philosophical understanding, artistic attunement, and a meditative stance together to demonstrate what possibilities can be opened by embracing nonviolence in curriculum studies. Throughout the article, we argue that nonviolence not only opposes violence but is also a positive, integrative force that we should become attuned to in order to transform curriculum and education. In addition, we discuss three theoretical and practical implications of our work, as well as four domains for further research.

Introduction

As Molly Quinn (2021) in a recent article points out, the issue of peace has been more indirectly than directly engaged in the field of curriculum studies, particularly in the United States. She notices "the absence of any sustained directed attention therein as a field to the question of peace" (p. 4). It is more so for the conception of nonviolence (with exceptions, see Brocho & Dodson, 2020; Wang, 2014, 2023), which has not taken root in the field and thus lacks adequate growth. An interesting question is, "Why not?" When discussing community-based nonviolence education for racial justice, Arthur Romano (2022) argues that since school education has been entrenched in standardization, accountability, and commercialization that further marginalize racially disadvantaged students, community education becomes an important alternative site for cultivating nonviolent relationships. Decades of school "reform" in the name of educating all children in the United States have reinforced various forms of violence in formal educational institutions. The structure and system of formal education is often oppositional to the principles of nonviolence.

Quinn (2021) also suggests that "pursuing justice—masculine, active, efficacious—alone may be more palatable (even if insufficient), given the affiliation of peace with the feminine, or with receptivity," especially when peace is misconceived (p. 10). While the field of curriculum studies explicitly advocates for justice, voices of peace and nonviolence are seldom articulated, even though many teachers, the majority of whom are women, have persistently enacted compassionate relationships with their students. As Romano (2022) points out, "Americans are deeply influenced by stories that emphasize that 'real men' don't show weakness (understood as vulnerability, admitting fault, and so on) or emotion (other than anger). Masculine power is often presented as an ability to dominate others" (p. 24). Fernandez (2003) also argues for a nonviolent and positive approach to feminism that does not reproduce the mechanism of patriarchal violence in another form. The gendered nature of nonviolence as a different mode of

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relationality that challenges masculine power of domination is made clear here.

While violence in its various forms has been criticized with depth in curriculum studies, formulating and practicing nonviolence education have seldom been theorized. However, as Michael Nagler (2004) points out, only critiquing violence without offering positive alternatives can reinforce the message of violence. We take up this task of exploring nonviolence in education, as it is especially important for our time with its strong sense of crisis in both the human and planetary world, intensified by the Covid-19 pandemic. Precisely in this difficult moment has the pursuit of *nonviolence* become urgent, as both grass-roots efforts in education and through pedagogical authority to shift relational dynamics. Nonviolence is a less-traveled pathway in curriculum studies, but it directs our attention to new possibilities that do not lead to another form of violence.

Nonviolence as Dwelling in Tensions to Release Integrative Energy

In peace education, nonviolence is often perceived as a method or an instrumental means to achieve a certain end. Instead, we conceptualize nonviolence not as (merely) instrumental but as existential through the unity of means and ends, and approach it as a way of living that has existed throughout human history. Education is positioned as a process of cultivating capacities for holding tensions between compassion and aggression to create more pathways for forming nonviolent relationships. Rather than being reified as an ideal, nonviolence is not about eliminating violence once for all, or destroying systems and structures once for all, but about dwelling in tensions to get in touch with and release a generative life force for both individuals and communities. As an everyday praxis that unites critical thought and action, nonviolence is dynamic, attuned, and creative, not following any predetermined procedure.

In such a conception, nonviolence education is a daily praxis of finding creative responses to difficult situations, one which involves an ongoing movement of unlearning the mechanism of domination within the self while relating compassionately to others and to the world. Both the inner work and the outer work of nonviolent attunement in and out of the classroom are filled with struggles, experiential explorations, and difficulty. Dwelling in tensions, we can hold ourselves open to possibilities that can generate integrative energy, transcend divisions, and build connections across differences from the local to the global community. Dwelling in tensions also means that sometimes aggression may tip the scale, but an awareness of such imbalance with the intentionality of holding a nonviolent position can activate the dynamics of working through difficulty to move towards re-establishing open-minded relations.

As Romano (2022) points out, focusing only on dramatic moments of nonviolence experience often obscures the daily labor of meeting challenges here and now to sustain nonviolent resistance and address racism and other forms of violence. It is in the ongoing process of sustaining nonviolence as daily awareness, intentionality, and action that education plays an important role. If "Dr. King's transformation in his understanding of nonviolence was filled with doubt and experimentation" (p. 34), then curriculum dynamics of nonviolence are also open to experimentation, questioning, curves of trials, and improvisations. Infusing nonviolence into curriculum as lived, working with tensions to create sustainable pathways is a dynamic of dance in everyday practice.

Nonviolence as Doubled Simultaneous Gestures

Nonviolence is often mis/perceived as passive, which is a patriarchal reading that does not value the receptivity that makes life possible, since heteronormativity depends on normalizing aggression as the default individual and relational mode. In its historical, political, and existential dimensions, nonviolence has an uncompromising gesture of saying "no" to all forms of violence (individual or structural; physical, intellectual, or emotional). The political meaning of nonviolence under Gandhi and Martin Luther King, Jr.'s leadership for nonviolent social change, as well as contemporary protests such as the Women's March in 2017, and Black Lives Matter protests, underscore the forceful impact of collective nonviolent action. Along with "no," nonviolence also has a "yes" gesture to compassion for *all*, including those opponents who participate in systems of injustice and violence. The intentionality of nonviolence is not to defeat

opponents but to awaken their moral conscience in order to persuade them to change. Nonviolence is both courageous and loving, as compassion is inclusive, and *all* forms of violence are resisted.

The simultaneity of "no" and "yes" is a tension that must be lived with, even as the conflicting directions are difficult to maintain at the same time. Living with this conflicting direction relates to one's ability to contest the violence of systems and structures while transforming anger, fear, guilt, and vulnerability within the self into compassion for others, supported by a sense of interconnectedness and commitment to systemic change (Nagler, 2004; Romano, 2022). However, compassion as a mode of relationality for both the self and the other breaks the cycle of violence in the long term through dissolving rather than reproducing the mechanism of violence in domination (Fernandez, 2003). In forming nonviolent relationships with the self, the other, and the world, educators need to cultivate such a capacity for holding both directions, and then help students to do the same (Wang, 2023). With the clear indicator of resistance against racism, gendered violence, and economic exploitation, among other forms of social violence, nonviolence is also a positive force with "the ability to maintain compassion even in the face of violence" (Romano, 2022, p. 44) and the capacity to dissolve violence before it emerges.

As an educational concept, nonviolence is a long-term project that engages students' whole beings and labors to cultivate nonviolent personhood in a loving community that welcomes the stranger. The simultaneity of yes and no gestures can be taught from early childhood education to college education, in different ways, and at both individual and institutional levels. Pedagogically, educators' compassionate relationships with *all* students not only acknowledge students' difficulties and teach them how to respond, rather than react, to a situation but also accompany them to explore freely even if they do not follow the teacher's direction. Different from a political movement, pedagogical relationships of nonviolence are enacted from the teacher's authority position, that is from the top down, and challenge the structural violence of educational institutions. Although educators cannot be free from institutional constraints, their enacting curriculum dynamics oriented by nonviolence can intentionally carve out spaces for transforming the nature of the educational process, content, purpose, and means.

Nonviolence in the Tensions of Integrating Body and Mind

In Buddhism, the dualism between the mind and the body is the source of violence and leads to the objectification of others and the world (Bai & Cohen, 2008). To heal such a split requires practicing nonduality to restore a sense of interconnectedness. Here the integration of body and mind is foundational for orienting personhood in the direction of nonviolence, connecting separate, unrecognized, or fragmented aspects into a harmonious whole. Also informed by embodied work in psychoanalysis, we believe that diving into and integrating the shadow—the parts of the self that we do not want others to know and do not want ourselves to know—is important. Carl Jung (1953) calls such integrative work "the transcendent function" in which consciousness is expanded by becoming aware of the unconscious and the subconscious. As a process of self-formation and re-formation, such integration is an ongoing process in which interconnectedness with others and with the cosmos is the underlying foundation for continual inner and creative work.

Transcending the dualism between the mind and the body, according to Buddhism and Daoism, requires practicing meditation, but there are multiple sites for enabling integration. Education plays a crucial role, through study and teaching, in cultivating nonviolent orientations through poetics, aesthetics, embodiment, meditations, and social imagination, as well as experiential and integrative understanding (Wang, 2023). Transcending dualism does require going beyond the intellect, which is the central site of formal education. Attending to intellectual advancement without cultivating sensory experiences and spiritual growth, as practiced in today's school education worldwide in different forms, leads to a one-sided education that splits body, mind, and spirit. Structural violence has intensified in recent years, creating more trauma for teachers and students, and healing becomes important to restore the balance between the body and the mind.

It is well acknowledged that the arts, embodiment, and aesthetic activities allow students to get in touch

with the unrecognized, subtle, and subconscious aspects of their experiences and to achieve more complex points of view. Holding the tension of rejecting violent action while enacting compassion for others cannot be achieved if students do not experience working through both directions within their body. Creating an empty space, Hunter (2013), as a fourth-grade teacher, has found that the arts can open up new possibilities in the midst of chaos and uncertainty to let curriculum emerge from students' creativity as they immerse their whole beings into engagements. Curriculum dynamics through experiential understanding and creative formulations, informed by Carl Jung's synthetic method (Wang, 2019), or *currere*, to connect students' life histories and subject matter (Pinar, 1994, 2023), can be integrative at the site of personhood.

Building connections among the disconnected components of the self is a microcosm of making connections across differences in society, as the inner life and social life are intricately related and mutually influence each other. Pinar (2023) emphasizes teachers' "subjective presence in the complicated conversation that is the curriculum," which "enables ethical engagement with ourselves and those in our midst" (p. 3). While nonviolence is not Pinar's term, *currere* in teacher education can be used as a way of encouraging students to work through difficult emotions and form a nonviolent relationship with the self (Wang, 2019). Integrating the body and the mind is the inner nonviolence work at the site of education, one person at a time.

Many international, indigenous, and spiritual traditions acknowledge that inner work is the basis for outer work (Christopher-Smith, 2007; Te Maihāroa et al., 2019; Wang, 2023), but we want to acknowledge that the relationship between the two is not linear but complicated. Achieving inner peace does not necessarily lead to advancing peace in the world if individuals do not direct their energy towards transformation of the outside world. On the other hand, participating in social and cultural protests does not necessarily achieve the transformation of anger, fear, shame, guilt, and hatred in the inner world if activism in the world does not integrate the shadow in a Jungian sense (Cunningham, 2021; Wang, 2023). Bridging the inner and the outer work for nonviolence requires a tensioned balance.

Nonviolence as Dwelling in the Dynamics of Difference

In nonviolence studies and peace education literature, commonality is usually considered the bridge for bringing diverse people together and transcending historical obstacles. However, psychoanalytic and poststructural theories often value the role of difference (psychic and social), approaching it as irreducible in order to hold open new possibilities that transcend the colonial mentality (Butler, 2020; Derrida, 1991). Reducing the otherness of the other into sameness and thus erasing difference can be a form of violence. Repressing the socially unaccepted element within the psyche often shrinks one's ability to stay open to what is unknown in the self and to others. At the social level, seeking only commonality with others runs the risk of homogenizing those who are perceived as different and objectifying them.

However, we do not advocate for radicalizing the differences of the other, either, which can make it difficult to connect self and others. Historically, positioning the other as radically different, such as Native American people, can also be used as a justification for mistreating them, or even genocide (Sabzalian, 2019). We need to find ways of engaging in difference, neither erasing it nor elevating it, but rather for mutual flourishing in a community of nonviolence. To exceed normalization and go beyond fragmentation, difference can be destabilized into a process of differentiation (Hershock, 2012), moving in fluid, multiple, complex, and self-contradictory directions. To value difference is to enrich individual and communal life through making efforts to build connections, but it does not reify difference. Differentiation is mobile and does not objectify.

Janet Miller (2010) discusses "communities without consensus," in which individual and collective identities are always open to change and "re-form daily and differently in response to difference and to the unknown" (p. 96). Such a sense of responsibility to the other goes beyond pre-established top-down norms, collective conformity, and self-serving closure. A nonviolent relationship with differences holds tensions and does not let things fall apart. It is in a creative tensionality of difference that both the self and the other explore new pathways that can be sustainable. A community is not marked by commonality but by both recognition of difference and embodied bridge-building within, between, and among differences.

The dynamics of difference also play out at the international level, where the division of "us" versus "them" often overshadows a nondual sense of interdependence among nations (Wang, 2014). Self-serving nationalism has been intensified precisely when global collaboration is needed more than ever. James Burns (in press) points out how militarism, ethnonationalism, authoritarian populism, and neoliberal globalization have contributed to violence in the international setting. It is important to point out that nonviolent relationality in international relations is not only about preventing war, but also about the everyday experiencing of both antagonism and the possibility of learning from others. A "Nation without Nationalism" is Kristeva's (1993) concept, compatible with a nondual notion of the nation, in which the differences of nations are recognized for mutual enrichment, not for closing close off borders.

In a time of crisis, blaming distant others becomes a convenient means of avoiding addressing what is happening within the borders, or of intentionally misleading the public. By contrast, the internationalization of curriculum studies (Pinar, 2014) intends to nurture new possibilities through learning from others in an "inter" space where interactions and creative engagement in differences, rather than dualistic splits, can hold tensions to open up multiple dimensions of nonviolent relationality within and between the local, the national, and the global. It is the everyday resistance to domination in various forms and the everyday integrative creativity of transforming relationships at the site of curriculum and pedagogy that allow us to imagine the joy and hope of living nonviolent lives together. We perceive nonviolence as the best part of the world heritage throughout history, and thus as having the best potential for healing antagonistic divides among nations and in the global world.

Blunting the Sharp Edges: Aesthetics, Curriculum, and Nonviolence

> To prepare the way for the Great Integrity—
>
> Close the rationalizing routes!
>
> Shut the gloomy gates!
>
> Blunt the sharp edges!
>
> Release those who are tethered!
>
> Soften the blinding lights!
>
> Unite the world (Lao Tzu, Verse 56, p. 245)

Curriculum can be a tool of violence. There are plenty of sharp edges, blinding lights, gloomy gates, tethered people, and rationalizing routes. If we are to live together in harmony, curriculum can also encourage us to soften the sharpness and dim the glaring lights. It can free us of our tethers and release our imaginative potential. It can birth nonviolence.

According to PEN America (2023), a literary group originally formed in 1922 increasingly concerned with freedom of speech, there is a "legislative war on education in America" (PEN America, 2023, Ed Gag Orders, para. 1). Their research shows that between January 2021 and July 3, 2023, more than 300 pieces of legislation—"educational gag orders"—have been proposed to "restrict teaching, training, and learning in K–12 schools and higher education" and to halt "discussions of race, gender, sexuality, and US history" (para.1). These legal actions demean minority students and punish teachers who work under threat of censure, dismissal, fines, threats, and lawsuits for veering away from mandated curriculum. Almost all of these gag orders have been proposed by Republican congress members, though not all Republicans support this legislation. Further, the United States is not alone in using its legal and educational systems to exert dominance over its citizens, its immigrants, and people in other countries. There are too many examples to count.

One weapon used in this war on education is the standardization of curriculum. Standardization, supported by high stakes testing, is used to stamp out differences. By definition, "To *standardize* things means to change them so that they all have the same features" (Collins, 2023, emphasis in original). Enforcing "sameness" through curriculum requires students to suppress their individual lived experiences,

their imagination, intuition, sense of self and place, their artistry, spirituality, and bodies under the guise of helping them be successful in school and in life. In clearest terms, any system, organization, curriculum, etc. that asks students to suppress parts of themselves as a condition of learning is a form of violence.

Equally troubling is the valorization of violence and the reality that some students, teachers, and members of the public at large bring guns and other weapons onto school grounds. It is too easy to respond with violence, both in schools and outside of schools, against perceived enemies. This violence may also be directed inward and expressed through self-destructive behavior. It is easy to see that violence follows those who feel physically, mentally, and spiritually disconnected from those around them. Thus, nonviolence education is urgently needed and has broader social and global implications. Educators can and do play an important role in fostering nonviolence through curriculum. Nurturing nonviolence, interconnectedness, and spirituality can "blunt the sharp edges" and help heal the fractures of mind, body, and soul(s).

Infusing curriculum with aesthetics offers a means to inspire nonviolence by engaging our inner, outer, and spirit worlds through meaningful, creative, and contemplative acts. Aesthetics is typically concerned with notions of beauty, ugliness, contemplation, and embodied senses, among others. Aesthetic engagement with the arts (e.g., paintings, poetry, music, etc.) and with nature, "nurtures a special kind of reflectiveness and expressiveness" (Greene, 2001, p. 6-7). They also "touch the depth of soul, evoke imagination, and engage emotions and serene thought" (Levine et al., 2004, p. 136-137). Within curriculum, each of these aspects enlarge learning beyond mind-centered approaches by reintegrating body, mind, and soul, and fostering nonviolent relationships with self, other, nature, and cosmos. In the classroom, this may generally involve helping students appreciate the awe-inspiring beauty and primacy of nature, to write reflective poetry that expresses their inner thoughts and lived experiences, to value quietude, and to explore the interrelatedness of all things, among others. While these educational practices are nonviolent, it is important to be aware that arts and aesthetics have also been used to glorify, sentimentalize, and romanticize violence (Berleant, 2019). For aesthetics to realize its nonviolent potential, it must be mindfully employed.

Along these lines, the following sections explore three types of aesthetic, nonviolent relationships and related practices that can inform curriculum. These include fostering the nonviolent *intrapersonal* relationship with the self through inner work, nonviolent *interpersonal* relationships with others through outer work, and the nonviolent *transpersonal* relationship with the cosmos through spiritual work. Certainly, there would be no definite lines of demarcation amongst these relationships in that, for example, the spiritual is both personal and communal. In other words, this is not to fragment what is holistic. This three-part categorization is used to consider potential strands of aesthetic nonviolence while recognizing these are part of an interconnected whole. It is also worthwhile to note that this work applies equally to students, teachers, and administrators.

Developing Nonviolent Intrapersonal Relationships through Inner Work

In the face of this urgent need for nonviolence curriculum, many teachers have difficulty in seeing nonviolence as an active approach for diminishing violence. In the book, *Carry Tiger to Mountain: The Tao of Activism and Leadership* (2006), the author uses Taoist concepts to fight environmental injustice in spiritual and nonviolent ways. Those concepts include retreating as a way of advancing, shifting negative energy without attempting to destroy it (which would be impossible), mindfully acting at the opportune moment rather than indiscriminately, and not fully signaling one's intentions or making oneself the center. After reading it in a graduate curriculum course, a handful of teachers in the class argued that taking a nonviolent Taoist approach would not be "doing enough" to fight for social justice. They also said that it was important to them to be "seen" by others as actively engaged in social justice work. This suggests that they felt nonviolence was too passive, too subtle, and amounted to doing nothing. Lanzoni (n.d.) argues though, that showing restraint in the response to violence "does not mean we fail to act in light of human suffering and despair," rather, "without an expansive contemplation…we might not discover effective

interventions" (para. 13). Far from being a passive approach, nonviolence work involves actively working to resist the urge to commit violence in return. To paraphrase the peace activist Ela Gandhi, the granddaughter of Mohandas Gandhi, those who think nonviolence work is easy have not tried doing it.

In negating the importance of nonviolence work and its ability to proactively dissolve violence before it takes root, teachers may choose not to engage students in nonviolent practices. This work is necessary, especially during a time when local, national, and global cultures seem insurmountably divided. Further, teachers can do real harm to students when they consciously and subconsciously divide them into "good" students who share their socio-political perspectives, and "bad" students who do not. In this way, the good/bad dualism is reinforced. Students also understand at an early age to which category they have been placed in, and they treat each other accordingly. Teachers must resist the urge to punish or silence differences no matter how painful. While infusing aesthetics curriculum is not a complete answer, it soothes both teachers' and students' wounds through contemplation, self-awareness, expression, and interconnection so that nonviolence may grow and thrive.

Developing an aesthetic nonviolent relationship with the self calls for looking deeply into one's own soul to locate and express the sources of pain that can lead to violence toward others and oneself. One way to develop this self-awareness is through "expressive art therapy" in which "expressive arts experiences—visual art, music, dance, and drama—allow people to explore unknown facets of themselves, communicate nonverbally, and achieve insight" (Malchiodi, 2003, p. 107). These experiences with the arts are multimodal, holistic, metaphorical, evocative of inner struggles, restorative, and are ultimately healing (Kaimal, 2023; Nash, 2022). These aesthetic practices kindle nonviolence by channeling destructive impulses into works of art so that, "rather than punch another human being…someone with aggressive tendencies could work with materials such as clay and wood that can absorb their energy and transform it into a creative product" (Kaimal, 2023, para. 10). Although not everyone is an expressive arts therapist, the therapeutic modalities used in Expressive Arts Therapy can promote inner healing and nonviolence through practices involving expression, imagination, active participation, and mind-body connection (Nash, 2022). These nonviolent aesthetic practices can reimagine curriculum and guide curriculum development.

Communing with nature is also an aesthetic experience that stimulates health, well-being, and nonviolence. Being in nature holistically activates all the senses and is the "purest pathway to inner peace" (Richard-Hamilton, 2021). Numerous benefits have also been linked to being in nature. These include personal and social benefits (decreased loneliness and social isolation, greater sense of community, increased empathy and cooperation, reduced aggression, crime, and violence); physical and physiological benefits (reduced blood pressure, heart rate, muscle tension, production of stress hormones, better breathing and vision, improved immune health, and greater motivation to exercise); cognitive and mental benefits (better mood, improved attention, reduced risk of psychiatric disorders, greater mental energy, and decreased depression, anger, and fear), among others (Delagran, 2023; Swaim, 2022; Weir, 2022). Weir (2020) adds that lingering in the natural environment stimulates a sense of awe, wonder, and vastness and it is through these awe-inspiring experiences, one begins to show "less concern for self, increased generosity, and more cooperation" (para. 20). In this way, inviting nature into curriculum develops an aesthetic sense of wonder that offers nonviolent personal and communal healing.

Developing Nonviolent Interpersonal Relationships through Outer Work

Building nonviolent relationships with others through aesthetics offers the possibility for social connection. Violence involves dehumanizing others so that it becomes possible to injure them without compunction (McGregor, 2013). One way to rehumanize others so that nonviolence becomes possible is through arts and aesthetics.

Both popular and academic literature suggests that aesthetic engagement with the arts stimulates nonviolence through its capacity to build empathy (Curry 2021; Development Services, 2016; Griggs & Hook, 2022; Morizio et al., 2021; Seed, 2017). Lanzoni (n.d.) notes, for example, that the word "empathy" is a translation of the German word "Einfühlung" which entails "projecting one's feelings and movements

into forms of art and nature" (Empathy). It is based on the human ability to form "kinesthetic images" which "combined visual, feeling and movement elements" so that one sees themselves as "fused" with the beauty of the natural environment and the artworks that surround them. From this perspective, empathy is holistic, aesthetic, and multisensory. Yet the Greek author, teacher, and lexographer Matina Psyhogeos (2018) suggests that "empathy" derives from the original Greek word "Εμπάθεια/Empatheia" which translates to "having ill feelings, unhealthy passion, animosity towards others" and is "the opposite of sympathy and synonym to strong antipathy!!!" Breithaupt (2019) adds that in large part empathy serves the needs of the empathizer. In his book, *The Dark Sides of Empathy*, he explores troubling forms of empathy, including false empathy (offering "false praise" in a "patronizing" way to those in pain), filtered empathy (wherein empathy is misdirected to the "helper" who is seen as a "hero"), empathetic sadism (taking "pleasure" in someone's else suffering—sometimes violently causing that suffering—as a way of connecting with them), manipulative empathy (wanting to be recognized for one's empathy), and vampiristic empathy (wherein the helper "appropriates" the suffering of others in order to supplant it with their own "objectives, goals, or desires"). Taken together, these differing views reveal that the concept of empathy is imbued with notions of aesthetics, nonviolence, and violence. Further, indiscriminately promoting empathy building without this deeper understanding can be harmful.

Keeping this in mind, aesthetic practices can create pathways to greater interpersonal understanding. One of these practices is through story-telling. All arts (e.g., fine art, poetry, dance, music, etc.) involve storytelling and it is through sharing stories that we may develop compassion for each other (CAM, 2023).

One place where storytelling promotes rehumanizing others is the museum. Gocigdem (2017) makes the case that,

> At any given time and place, there are multiple ways of looking at and seeing a particular object, issue, or problem, as well as many ways that beings coexist and make sense of the universe. Museums that encourage us to understand, emotionally engage with, and contemplate this profound truth help us to become more responsive to the needs of those around us and of our environment. They help us gain a perspective-altering lens that awakens our sense of connectedness, respect, compassion, presence, and purpose (closing para.).

Gocigdem adds that museums are safe and informal learning spaces which bring together arts, technology, sciences, and literature to show how all living things are interconnected, to inspire awe, to present the stories of different people from different places with different experiences, to provide sensory-rich experiences, and to encourage contemplation.

Utilizing artistic and aesthetic practices to draw out students' personal experiences resists the imposition of standardizing forces which work to censor students' differences. Inviting story-telling and other arts into the classroom with the same sense of interactivity and interconnectedness allows students to explore the world from a variety of subject positions including those of race, gender, and socioeconomic status. Care must be taken so that students do not project themselves into others' identities in the act of realizing the relationship between self and others. Such exploration can be freeing for students whose sense of self has been stripped from them by educational systems. It can also be anxiety-provoking for students who are unused to sharing different aspects of themselves as an educational imperative. Setting a nonviolent tone for sharing stories in the classroom is especially important. Often humor and play reduces anxiety. Sometimes group activities such as yoga, Tai chi, and dance can also reduce tension while nonviolently harmonizing the energies in the classroom.

Developing Nonviolent Transpersonal Relationships through Spiritual Work

Making a link between the aesthetic and the spiritual, Culliford (2017) reflects on his encounters with various forms of art as "transformative" spiritual experiences, in the sense that he "was not entirely the same person afterwards" and felt "better connected, through the art and the artist, to the entirety of humanity and the cosmic whole" (para. 5). In terms of curriculum, aesthetics as spiritual work offers possibilities for developing insight through an interrelationship with something larger than the self, the "more-than-human world." Evelyn Underhill, writing in 1920, explored the topic of spirituality in schools.

She noted that children come to "us" imbued with "physical, mental, and spiritual possibilities" yet "we do not in practice really regard spirit as the chief element of our being; the chief object of our educational care" (p. 87-88). One could argue that this is still the case today.

For Irwin (2006), in order to show true educational care for students, educators must begin by showing care for themselves. In her article, *Walking to Create an Aesthetic and Spiritual Currere*, Irwin (2006), writes of a "walking currere" as an act of educators' self-creation and self-care. In the article, Irwin describes a walk across her university campus, paying special attention to her surroundings, the people she encountered (and those that encountered her), the bodily sensations provoked by the setting, and the maple trees she spontaneously photographs. Reflecting on the experience, Irwin finds that the rhythmic flow of the walk, the engagement with nature, and the artwork she generates is form of self-creation that is "aesthetic, spiritual, imaginative, narrative, and nonlinear by being open to unexpected directions and unpredictable turns within transformative spaces of possibilities'' (p. 78). Her work suggests that developing teachers' aesthetic and spiritual awareness is an act of caring self-attunement which, in turn, paves the way for nonviolent pedagogy.

Similarly, Bailey and Kingston (2020) poetically describe their sacred "pilgrimages" to a memorial built on the site of a horrific act of violence. Moving through the memorial, they reflect on the design of the space, the objects left in remembrance, and the multisensory aspects of their sojourns which led to a sense of spirituality, wholeness, and healing. For them, the pilgrimage inspires a "stretching toward" defined as a "continuous process of careful attending," as well as "wandering, surrendering, realizing mortality and vulnerability, peace consciousness and feeling interconnected" (p. 285). In an example of the pilgrimage/walking *currere*, one of the authors was part of a group of teachers who took a class of eight graders to a memorial on another site of violence. The students silently wandered around the memorial park, wrote down their impressions, thoughts, and emotions. They also made drawings and took photos of the things that spoke to them. This added aesthetic, moral, and spiritual layers to our overarching lesson which aided in students' own self-creation. In this way, curriculum was broadened.

Overall, nonviolence begets nonviolence. It can be nurtured, shared, and practiced through aesthetics and arts-oriented curriculum. Aesthetic curriculum can promote inner work in relationship with the self, outer work in relationship with others, and spiritual work in relationship with the cosmos. Nonviolent aesthetic curriculum is rooted in imagination, interconnectedness, transformation, and spirituality. All people have innated creative abilities and the capacity for nonviolence that curriculum can help to release and reclaim. Given the wide range of educational contexts related to differences in places, teachers, students, cultures, etc., there is no one way to create a curriculum of nonviolence that incorporates aesthetic and arts-based practices. Teachers must find their own paths to engendering nonviolence through the arts. This may seem an abdication, a sidestep. There are plenty of glib art project lists available online. Yet taking an aesthetic nonviolent stance at heart is about building relationships with each other and the environment and letting beauty, spirituality, and contemplation shape our very being in the world. This you cannot find online.

Infusing curriculum with nonviolence and aesthetics may go against the grain amidst ever-increasing calls for standardizing and weaponizing curriculum. This calls for creating aesthetic openings in curriculum even when students, teachers, and administrators may not initially recognize its potential to enable nonviolence to permeate school systems and society. In opening up these aesthetic spaces of nonviolence practice, we begin to close the gloomy gates.

Embodiment and Education: An Ongoing Challenge

Attuning to and growing nonviolence within the self can be enriched through cultivating embodied living, and practices and principles of mindfulness can support inner nonviolence through reducing reactivity, disrupting harmful patterns, and cultivating compassion among other things. Individuals can begin sensing the interconnectedness of their minds and bodies through meditations as the foundation for outer nonviolence work (Nagler, 2004). Blumenfeld-Jones (2012) astutely remarks that "our society [/societies] is[/are] a non-embodied…caught up in our minds" (p. 25). In turn, our collective non-embodied living is

mirrored to us in educational settings, practices, habits, and customs which are all too often narrowly focused solely on intellectual growth. Bridging the gap between the mind and body in nonviolence education not only fosters intellectual inquiry but also honors the roles of the body and spirit in existence which are aspects of holistic education. By embracing embodiment and mindfulness within nonviolence, we can reunite the mind and body, leading to a more compassionate understanding of human experiences and nurturing a more comprehensive approach to teaching and learning.

Non-embodied living is rooted in a division between the mind and the body, which is firmly ingrained in educational contexts and thriving in learners' and educators' experiences. Blumenfeld-Jones (2012) pointedly notes this when he wrote that in many school settings,

> a person's body is made to be absent as the activity focuses nearly entirely on the mind. Children [adolescents and adults] stay in chairs or sit on floors or at group table and write, talk, think, mark, color, talk some more. The body movement in the room is of practical value (get from here to here). For many classrooms the idea of children moving and thinking through their bodies is not part of the pedagogy. (p. 25)

Daily experiences in classrooms and in schools are grounded in a mechanical, technical ethos strengthened during the Industrial Revolution and amplified by the unquenchable desires within neoliberalism as suggested by scholars like Macdonald (1995), Pinar (2012), Kliebard (2004), and Apple (2006). These historical and present forces condition those of us in education and reinforce a mind-body split that frequently devalues the body's needs and knowing in favor of the relentless demands of intellectual growth, efficiency and productivity through actions and activities, and ceaseless progress. Questions, uncertainty, challenges, and creativity are seen as inconvenient obstacles to efficiency, streamlined processes, and standardization. Mind-body activities that promote nonviolence such as contemplation, stillness, wonder, rest, silence, play, and creativity are often considered unproductive, unless they are measurable, serve instrumentalism, and further the intellect.

Unlike eastern thought traditions such as Daoism that are rooted in a relational and nondual approaches, many thoughts and actions related to education are deeply influenced by dualisms (i.e., either/or) that linger in western thought, which arose through antiquity, Platonic Christianity, rationalism and empiricism in the European Enlightenment, and the current trend of scientism (Ryan, 2011). Understanding the interconnected, holistic nature of human existence with each other, the natural world, and cosmos has been torn apart. The idea of a spirit got appropriated by religious institutions and authorities; the sciences claimed the material world and physical body, and the mind was taken by philosophy and psychology. Such fragmentation contributes to violence and othering, positioning certain individuals or groups as fundamentally alien to control them.

The mind-body schism, which curriculum scholars have highlighted for some time now (e.g., Blumenfeld-Jones, 2012; Dewey, 2005/1934; O'Loughlin, 2006; Springgay & Freedman 2007), contributes to how education can become a tool for the objectification of humans, which also contributes to the violent underbelly of education at present. A historical example can be seen in the government's use of boarding schools to separate Native children from their families and communities. Under the guise of "progress" and "Americanizing," schooling was weaponized to suppress cultural knowledge and identity with horrific consequences (Adams, 1995; Child, 2000). Such a mentality is extended into contemporary indigenous education (Sabzalian, 2019).

Present-day illustrations of objectification occur when bodies are perceived as problematic things, problematic to examine and problematic in creating behaviors that need of control and management. The phenomenon of the school-to-prison pipeline in the United States refers to a pattern of practices in educational institutions that push marginalized students out of schools and into criminal justice systems through factors like over-policing schools and harsh disciplinary policies and practices (Morris, 2016). In Florida at the Tallahassee Classical School sixth-grade students were taught about Michelangelo's sculpture of David, a sculpture considered a masterpiece created in the Renaissance out of a single block of marble. Some parents became outraged that the artwork was taught, in part because of fear and anger that a nude male figure was shown to their children, and the fallout was the firing of the school's principal (Kim, 2023).

The firm grip of the mind-body divide within educational contexts can also be observed through the language used to describe ordinary, everyday experiences, where neglect of the body often becomes apparent. Remarks uttered by teachers come up often like: "I don't go to the restroom all day." "I've developed a teacher bladder." "I don't take my lunches because I don't have time." "I usually stay after school for a couple hours to keep working." "I keep snacks at my desk so I can shove something in my mouth quickly and keep working." On the surface, such statements may seem like casual commentary, yet they are worth pause and deeper consideration. What is unsettling about them is they underscore a prevailing disconnect, even disregard, for the body in school settings. Listening to the body's basic physiological needs for sustenance and relief get subjugated to the ceaseless demands of teaching and the relentless push for more productivity in schools.

Violence, Suffering, and Compassion

The divide between mind and corporeal existence is fertile ground for violence to grow and in turn causing our collective desensitization to our own suffering and the suffering of others. Suffering is an inevitable consequence of the schism, and if we recognize violence as a symptom of the non-embodied living, we must also examine how suffering is part of the violence and how we can unintentionally diminish our own lived experiences and those of others. A mark of existence in Buddhism is that suffering or unsatisfactoriness is a truth of being for all sentient beings (The Dhammapada, 2007; Thubten, 2019). Living in the world we all experience forms of suffering throughout our lives. The Tibetan Buddhist, Anam Thubten (2019) captures this phenomenon quite well and points to widespread unawareness around suffering saying, "Most people don't want to hear anything about suffering, even though there is an ocean of suffering in our world" (p. 2). The suffering in our world tends to lose relevance to our daily lives if we are personally faring well.

Thubten's observations poignantly highlight human's tendencies to stifle our awareness of both personal suffering and the suffering of others. This suppression is achieved by rationalizing the pain they undergo, and in some instances, justifying others' suffering. This is problematic because detachment and self-preservation can create barriers to compassion, further aggravating the cycle of violence and suffering. The concept of "all-pervasive unawareness" in Buddhism reflects a similar sentiment. It refers to a state where we close our hearts, so we do not have to feel our own suffering, and by extension, we do not have to feel the suffering of others either. Thubten (2019) further elucidates, "We won't evolve personally —and humanity as a whole won't evolve either— until we start cultivating love and compassion for ourselves and all others" (p. 3). Essentially, growing compassionate understandings around the pain and suffering in ourselves and in others can in turn help us begin addressing the root causes of violence and suffering in both. From his lifetime of practicing compassion and mindfulness, Thich Nhat Hanh (2017) wisely pointed to this when he said that "we can transform our anger and anxiety, and cultivate our energy of peace, understanding, and compassion as the basis for action" (p. 100-101).

Mindfulness Practices: Tuning into the Mind-Body

Mindfulness practices can be used as a method of relaxation amidst the challenges of life, but they are also done as part of a deeply transformative journey into the innermost workings of one's mind and body to embrace nonviolence. The interconnectedness of mind and body forms a unique landscape where each thought and feeling leaves an imprint. A common experience in the internal landscape is the dominance of the thinking-reactive min—where we become captives of our thoughts and the narratives we all weave about ourselves, others, the world, and what we think reality is. One of the powers of mindfulness lies in becoming an observer of the thinking-reactive mind and our own ingrained conditioning. In the words of Thubeten (2019), there is a prevalent unawareness of the thinking-mind, which often serves as a significant source of violence and suffering. Mindfulness encourages purposeful introspection, which loosen the mind from rigid doctrines and harsh judgments, allowing us to attentively observe the contents of our being and the present circumstances. In other words, one assumes the role of an impartial spectator to one's own experiences.

One of the authors for this article is engaged in on-going qualitative research exploring the living nature of contemplative curriculum at a large university in the United States. Part of the data corpus includes undergraduate students' reflections of their experiences with such curriculum, and many have described experiences of becoming observers of their thinking-reactive minds.

> I used to think and spend half of my day thinking about a past situation that happened or an inconvenience that I encountered, and I don't realize that I wasted today thinking about something in that past… Our mind is constantly thinking and analyzing things to the point where we don't even realize that we are doing that. I used to use my mind for worrying too much and for complaining inside my head and all the things that can drain your energy and I used to do it all the time nonstop. (Student, 2022)

> I couldn't help but think of some of the patterns that my girlfriend and I have developed over 8 years together and how I could change some of my reactions over small things. … I can remove some extra negativity from our household by not just thinking about the future or the past … that act of recognition means you are not fully invested in the reaction, a part of you sees what you're doing so it is not all consuming so to speak. (Student, 2023)

Such examples provide a glimpse into a couple students' growing awareness of their thinking-reactive minds within their lives. Throughout the course the instructor weaves together open-ended reflection prompts, readings, lectures, and examples from his own life as well as others' examples in order to invite students to listen more deeply to what they are telling themselves within themselves about the self and others. This in turn taps them into what they think they know about the nature of reality. Deeply woven into his course is holding space for loving compassion to emerge creatively and organically within each student. How we speak to ourselves about ourselves and about others can often unknowingly perpetuate suffering and violence. Recognizing these patterns with compassion and understanding can initiate an inner self-transformation process, promoting peace both within ourselves and in our interactions with the world around us.

Mindfulness and its meaningfulness are experientially rooted as opposed to being intellectualized concepts or pontifications about what can be practiced. One aim of mindfulness is often to engage one's inner space with stillness and silence, because within them detachment is enabled from the constant stream of thoughts that often plague the thinking-reactive mind. Meditation (e.g., stating, laying down, standing, walking, etc.) often utilized as a practice to encourage stillness. Mindfulness extends beyond stillness too and encompasses a profound awareness of our inner selves, accepting whatever arises in the present moment, as well as becoming attuned to others. Embracing mindfulness means being non-dogmatic and non-judgmental towards our subjective experiences and those of others. It involves not only recognizing our thoughts but also fostering somatic awareness, understanding how experiences manifest within our bodies.

The journey of mindfulness has no predetermined endpoint; it is a continuous process of deepening our connection with our inner selves and others. Other practices involving total attention include walking mindfully, staying attuned to the sensations of the moving body, engaging in sound or word meditations with mantras, practicing yoga, and tuning our attention to sensory experiences like seeing, hearing, breathing, touching, and tasting. By incorporating mindful practices, we can support our inner work, cultivating awareness of nonviolence, and become attuned to the tensions within our minds and bodies. As an educator, our self-awareness builds bridges to becoming attuned to students' thoughts, emotions, and inner complexity so that we can accompany them to work through difficulties in a pedagogy of nonviolence.

Disrupting Oppression through Mindfulness

Mindfulness is practiced by individuals, but it can also support interactions that cultivate compassionate relationships and deconstruct the social and cultural scripts that oppress the self and others. Inner awareness of both the internal state and the external situation is the foundation for responding, rather than reacting, to others, and thus invites others to make a matching response. Adopting a feminist perspective, Beth Berila (2016) integrates mindfulness into anti-oppression pedagogy to work with difficult emotions for both the instructor and students. Mindful practices "can transform dialogues about power, oppression,

and privilege from intense reactionary debates into more relational, empathic, and reflective experiences" (p. 15). Embodied learning and teaching have long been feminist practices, but working at the intersection between mindfulness and feminism has been more recent efforts.

The presence of racism —and the dehumanizing affects and effects it sustains— continues to be a problematic reality in the structures of educational institutions the United States and for educators and learners within them, making it poignantly connected with making sense of nonviolence in curriculum. Racism is a complex psychological phenomenon made manifest in the material world and operates correlatively both externally in society and internally within individuals. Racism is also a collective social problem that certainly extends to educational contexts worldwide. Even though the overwhelming reality of the suffering and strife present in the world can seem overwhelming and even fatiguing, within the depths of mindfulness and nonviolence as everyday practices lie pathways for addressing the afflictions of injustices and insidious violent manifestations like racism and other forms of oppression.

Rhonda Magee (2019), who writes from a social sciences point of view as a law professor and practitioner of mindfulness-based stress reduction, and Ruth King (2018), who writes from her experiences and wisdom as a Buddhist, offer compelling perspectives on how mindfulness, with its emphasis on the interconnectedness of mind and body, holds the potential to transform cycles of suffering and violence stemming from racism. Mindfulness can grow self-awareness, consequently enabling a heightened awareness of others, thus contributing to efforts of addressing racism and other forms of oppression. Moreover, practicing mindfulness from a young age also prevents the formation of social biases, challenges categorical thinking, and develops a sense of interdependence, which undercuts the root for growing political and social violence in the first place. Nonviolence education through mindfulness should permeate K-20 education to play its positive role.

Both Magee and King, as women of color, believe in the power of mindfulness for disrupting prevailing conflicts, divisiveness, and oppression through personal growth and social action that can unfold from a more compassionate state of consciousness. Mindfulness becomes powerful because it is a means to confront internal forces that hinder the expression of genuine love because it involves recognizing and scrutinizing conditioned beliefs and biases surrounding race can be a gateway to dismantling structures that uphold racial bias and injustice. Such conscious self-reflection lays the foundation for better interpersonal interactions and paves the way for compassion. Magee and King also underscore the importance of how one listens and responds during challenging racial conversations. Mindful listening has the potential to foster understanding and healing through suspending the ego defense mechanism and deeply listen to recognize and work through "the grief, anger, pain, confusion, horror, and denial that arise, along with the storylines we attach to" in order to truly hear what others speak to us (Berila, 2016, p. 110). Mindfulness practices can also nurture self-compassion and emotional well-being in the face of racial discrimination and other forms of oppression be they external or internal.

When navigating the terrain of nonviolence and mindfulness practices and principles, it becomes incumbent to understand how ideas and approaches are sculpted and disseminated. As Komjathy (2018) notes, we need to be cautious of "recurring tendencies, namely, reducing contemplative practice to techniques and extracting contemplative practices from their larger religious and soteriological systems" (p. 63). Mindful, contemplative work cannot simply be broken down into a series of steps or techniques to be done in a linear fashion to get a predetermine result. Such work needs to be appreciated as a continuous, holistic, "all-pervasive existential approach" (p. 63). It is imperative to recognize the rich historical, socio-cultural, and spiritual threads and contexts in which mindful and contemplative work have been and continue to be nurtured and practiced. Whether it is at the individual, existential level or at the level of interrupting institutional oppression, engaging in embodiment and mindfulness can be an organic part of nonviolence education.

Conclusion and Implications

In short, the lack of attention to nonviolence in education is highly problematic, and this article elaborates nonviolence as a new direction in a time of crisis. We re-articulate the notion of nonviolence in the context of curriculum studies and conceptualize nonviolence education as everyday practices that involve dwelling in tensions to connect inner work and outer work, to contest violence and promote interconnectedness through body/mind and self/other integration in aesthetic activities, curriculum embodiment, and mindful relationships. It is important that social differences are recognized, rather than erased, and ethical engagement with them aims at building connections through empathy and compassion. In nonviolence education, violence is questioned and deconstructed, suffering and loss are acknowledged for healing, and oppression is disrupted and uprooted from within. In addition, nonviolence curriculum is not only embodied but also spiritual in order to transcend a separate sense of the individual or the group. We, as educators, should be attuned to such an integrative energy.

There are several key theoretical and practical implications of our work. First, nonviolence is a null curriculum that is seldom discussed in curriculum theorizing and is not taught at schools. However, we must research and teach it, especially in critical times like today, in order to establish nonviolent relationships with the self, the other, and the world that challenge all forms of violence while embracing compassion, love, and hope. During times of crises, it is easy to become overwhelmed, demoralized, and hopeless. Students are especially vulnerable to the impact of war, police brutality, global climate crisis, and political dividedness that we are witnessing today. Nonviolence curriculum opens a window to hope by showing our actions (inner/outer/spiritual) have purpose and that compassion and healing are possible. Engaging in a dynamic dance of nonviolence in curriculum theory and practice has profound implications for transforming education and society.

Second, incorporating nonviolence into educational practices and theories has the potential to counteract the polarization and reductionism often inherent in simplified interpretations of identity politics. By promoting a more nuanced comprehension of both individual and collective personhoods, nonviolence education can challenge overly simplistic or binary views and contribute to the development of more compassionate and embodied worldviews. This approach can encourage students and teachers to move beyond divisive stereotypes and engage with the complex tapestry of human experience, fostering an educational environment that values deep understanding over superficial categorization.

Third, our work is interdisciplinary in combining philosophy, aesthetics, and embodiment, which not only fills a gap in the field, but it also opens new, integrated spaces for scholars and teachers from different disciplines and backgrounds to explore multiple conceptions of nonviolence and practice nonviolent relations in their pedagogies. It broadens the horizon of understanding nonviolence, offers multiple pathways to enacting nonviolent principles, and invites different entries into the landscape of nonviolence education.

Nonviolence in educational scholarship is a significantly under-theorized and under-investigated area, presenting a substantial opportunity for future theoretical and empirical research. One domain might be researching how educational policies support or constrain nonviolence education, identifying systemic enablers and barriers. Practitioner inquiry could enable educators to reflect on and develop their teaching practices in alignment with nonviolent principles, fostering a culture of peace from within the classroom. Cross-cultural research is also crucial to understanding diverse educational approaches to nonviolence and fostering international dialogues. Lastly, examining the impact of nonviolence education on students' inner worlds and social-emotional growth could inform practices that cultivate compassion, resilience, and responsibility. These research domains can not only enhance curriculum approaches and further theorizing but also to contribute to nurturing more peace and understanding.

Declarations

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In-School Suspension and Number of Days Assigned by the Ethnicity-Race of Grades 4 and 5 Girls: A Texas, Multiyear Analysis

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Abstract

In this statewide, multiyear investigation, the extent to which student ethnicity/race was related to the rate and number of days that Grades 4 and 5 Black, Hispanic, and White girls were assigned to an in-school suspension was addressed. Separate analyses were conducted for each grade level and for each of the four school years. Established in this investigation was the clear presence of differences in the frequency and number of days that Grades 4 and 5 Black, Hispanic, and White girls were assigned to an in-school suspension in the 2016-2017 through the 2019-2020 school years. In both grade levels, Black and Hispanic girls were assigned to an in-school suspension at a statistically significantly higher rate than White girls. Black girls were assigned the highest average number of days to an in-school suspension, followed by White girls and Hispanic girls. Implications and recommendations for future research were made.

Introduction

The Children's Defense Fund (1975) published a report in which they documented an increase in the assignment of students to an out-of-suspension across the United States and the resulting negative effects of these suspensions on student academic performance (Skiba et al., 2011). One alternative suggested in the report was the use of in-school centers that would alleviate classroom issues for teachers by removing students from the regular classroom while still providing students with access to the educational environment. Today, the assignment of students to an in-school suspension is the most common form of exclusionary discipline consequence used to address student misbehaviors in the school setting (Office of Civil Rights, 2021).

In the 2017-2018 school year, more than 2.6 million students were assigned to at least one day in an in-school suspension, resulting in their removal from the regular educational environment. Of this 2.6 million students assigned to an in-school suspension, 802,852 of them were girls. Despite Black girls being only 7.4% of the total enrollment of girls in public schools in the 2017-2018 school year, they accounted for 36.6% of all assignments to an in-school suspension. A similar trend was established for Hispanic girls who, though only being 13.3% of the total school enrollment, accounted for 23.9% of in-school suspension assignments. As such, Black girls were assigned to an in-school suspension at a rate five times higher than their enrollment percentage, whereas Hispanic girls were assigned to an in-school suspension at a rate over twice their enrollment percentage (Office of Civil Rights, 2021).

Texas, the state of interest in this article, accounted for more than 18% of the total number of girls in the United States who were assigned to at least one day in an in-school suspension in the 2017-2018 school year. With regard to ethnicity/race, similar trends were documented in in-school suspension assignments. Despite Black girls being only 6.1% of girls enrolled in Texas public schools, they accounted for 24.9% of assignments to an in-school suspension. A similar trend was present for Hispanic girls who despite being 25.7% of girls enrolled in public schools, accounted for more than half, 52.5%, of assignments to an in-

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school suspension. Accordingly, Black girls in Texas are assigned to an in-school suspension at a rate nearly four times higher than the enrollment percentage, whereas Hispanic girls are assigned to an in-school suspension at a rate twice that of their enrollment percentage (Office of Civil Rights, 2021).

In a Texas statewide analysis, Slate et al. (2016) investigated the presence of inequities in the assignment of girls to exclusionary disciplinary consequences in the 2013-2014 school year. For Grades 4 and 5 girls, who are of focus in this article, Slate et al. (2016) documented the presence of clear disparities in the rates at which girls were assigned to an in-school suspension with respect to their ethnicity/race. Though Grade 4 Black girls comprised a small percentage of the overall student enrollment, they accounted for more than half, 54%, of assignments to an in-school suspension. The frequency at which Black girls were assigned to an in-school suspension increased by a factor of nearly six in Grade 5 as they were assigned to 1,152 in-school suspensions, 955 more assignments than in Grade 4. Grade 5 Hispanic girls were assigned to an in-school suspension at a frequency nearly 12 times higher as they were assigned to 848 in-school suspensions, 776 more than in Grade 4.

In addition to the presence of inequities in the assignment of girls to an in-school suspension by their ethnicity/race, researchers (Harkrider, 2020; Miller, 2021; White, 2019) have also documented the presence of inequities in the number of days that girls are assigned to an in-school suspension with respect to their ethnicity/race. That is, the inequities that are present in being assigned to an exclusionary consequence are further exacerbated by inequities in the number of days assigned to the consequence. The issue of existing disparities in the number of days assigned to an in-school suspension is of concern because it contributes to a loss of instructional time in the regular educational environment (Chu & Ready, 2018). In a Texas statewide investigation, White (2019) established that for Grades 6, 7, and 8 girls, Black girls were assigned to a statistically significantly higher number of days in an in-school suspension than were White and Hispanic girls in the 2015-2016 school year. White (2019) documented that Black girls in Grade 6 were assigned to 0.87 days more to an in-school suspension than were White girls. Black girls in Grade 7 were assigned to 0.94 days more to an in-school suspension than were White girls. Black girls in Grade 8 were assigned to 0.72 days more in an in-school suspension than were White girls.

Despite being assigned an average of fewer days to an in-school suspension than Black girls, Hispanic girls were still assigned to a statistically significantly higher number of days than White girls during the 2015-2016 school year. In Grade 6, Hispanic girls were assigned to 0.48 days more in an in-school suspension than were White girls. In Grade 7, Hispanic girls were assigned to 0.40 days more in an in-school suspension than were White girls. In Grade 6, Hispanic girls were assigned to 0.17 days more in an in-school suspension than were White girls.

Previous researchers (Barnes et al., 2017; Hilberth & Slate, 2014; Miller, 2021; Morris & Perry, 2017; White & Slate, 2017) have primarily focused on inequities in exclusionary discipline practices for middle and high school students. In a Texas statewide investigation about Grades 4 and 5 students, Tiger (2016) determined that Black girls were assigned to an in-school suspension at a rate that was statistically significantly higher than the in-school suspension rates for White or Hispanic girls in the 2013-2014 and 2014-2015 school years. In both school years, Black girls were assigned to an in-school suspension at a rate three times higher than were White and Hispanic girls. Readers should note that the findings of Tiger's (2016) study were in contrast to other studies where Hispanic girls were assigned to an in-school suspension at a lower rate than White girls despite comprising a majority of the enrollment population.

Although in-school suspension is viewed as a way to provide students with a consequence for misbehaviors while limiting the negative effects on their educational performance, researchers (Chu & Ready, 2018; Hilberth, 2010; Skiba et al., 2011; Smith et al., 2020) have determined that the assignment of students to an in-school suspension can lead to an increased likelihood of poor academic outcomes. Smith et al. (2020) conducted a study of 380,826 students enrolled in Texas public schools to explore the effect of assignment to an in-school suspension on their standardized test performance. They established that assignment to just one in-school suspension was a strong predictor of poor performance in both reading

and mathematics. Poor academic performance as a function of an in-school suspension has been attributed to the loss of instructional time in the regular educational environment (Chu & Ready, 2018; Skiba et al. 2011).

In a similar Texas statewide investigation, Hilberth (2010) established that assignment to an in-school suspension had statistically significant relationships to performance on standardized tests in reading and mathematics. Black students who were assigned to at least one in-school suspension had reading scores that were statistically significantly lower than the reading test scores of Black students who had not been assigned to an in-school suspension. Similar results were documented for mathematics. Black students who had been assigned to an in-school suspension had mathematics scores that were statistically significantly lower than the mathematics test scores of Black students who had not been assigned to an in-school suspension. The documentation of such inequities in both the assignment to an in-school suspension and in the number of days assigned to an in-school suspension are of concern because these factors may be contributing to achievement gaps between students of color and White students.

In a recent investigation, Ibrahim et al. (2020) established that for Black girls, assignment to an in-school suspension was associated with lower mathematics course-taking. More specifically, Black girls who were assigned to an in-school suspension were statistically significantly less likely to take higher level mathematics courses than Black girls who were not assigned to an in-school suspension. Ibrahim et al. (2020) also documented that higher scores on standardized mathematics tests and positive teacher-student relationships were associated with enrollment in higher level mathematics courses for Black girls. Thus, Black girls who were assigned to an in-school suspension were less likely to enroll in higher level mathematics courses and to perceive poorer relationships with their teachers. The negative effects on course enrollment associated with assignment to an in-school suspension, and thus student-teacher relationships, are of concerns because they may further contribute to the issue of inequities in the assignment of Black girls to in-school suspensions and other exclusionary consequences, and the resulting effects on their academic achievement.

Statement of the Problem

The prevalence of school administrators using exclusionary discipline practices as a management technique to address student misbehaviors has been on the increase since the 1970's (Children's Defense Fund, 1975). Today, the assignment of students to an in-school suspension remains the most common exclusionary discipline consequence. In the 2017-2018 school year, more than 2.6 million students were assigned to at least one day in an in-school suspension. Girls comprised more than 800,000 of these assignments to an in-school suspension (Office of Civil Rights, 2021). With respect to ethnicity/race, clear inequities have been established in the frequency with which girls are assigned to an in-school suspension (Slate et al., 2016), as have inequities in the number of days girls are assigned to an in-school suspension (Harkrider, 2020; Miller, 2021; White, 2019).

These documented inequities are of concern because researchers (Chu & Ready, 2018; Hilberth, 2010; Skiba et al., 2011; Smith et al., 2020) have established the assignment of girls to an in-school suspension is related to poor academic and social outcomes. Hilberth (2010) and Smith et al. (2020) determined that girls who had been assigned to at least one day in an in-school suspension were statistically significantly more likely to have poorer standardized reading and mathematics test scores than girls who had not been assigned to an in-school suspension. Ibrahim et al. (2020) documented that Black girls who had been assigned to an in-school suspension were statistically significantly less likely to enroll in higher level mathematics courses than Black girls who had not been assigned to such a consequence. Ibrahim et al. (2020) suggested that enrollment in higher level mathematics courses contributed to stronger school bonding, such as positive relationships with adults on campus. Accordingly, Black girls who are assigned to an in-school suspension may be less likely to form strong student-teacher relationships, further exacerbating both their overrepresentation in exclusionary discipline consequences and to their poor academic outcomes.

Well established by researchers (Barnes et al., 2017; Hilberth & Slate, 2014; Miller, 2021; Morris & Perry,

2017; White & Slate, 2017) have been the clear presence of inequities in the assignment of students to an in-school suspension in middle and high school settings. Existing literature on the presence of inequities in the assignment of elementary school students to an in-school suspension, however, is limited. Through a search of available literature, only one such study conducted by Tiger (2016) was located. Documented in her study was the presence of clear inequities in the assignment of Grades 4 and 5 girls to an in-school suspension. In her investigation, Black girls were assigned to an in-school suspension at a rate three times higher than the rate for White and Hispanic girls.

The first purpose of this study was to determine the degree to which ethnicity/race was related to the assignment of girls to an in-school suspension. Additionally, the extent to which ethnicity/race was related to the number of days that girls were assigned to an in-school suspension was investigated. Specifically examined were discipline data for Grades 4 and 5 Black, Hispanic, and White girls for the 2016-2017, 2017-2018, 2018-2019, and 2019-2020 school years. Accordingly, the extent to which trends were present in the assignment to an in-school suspension, as well as in the number of days assigned, was addressed.

This study was conducted to fill the void in the existing research literature regarding the presence of inequities in the assignment of elementary girls to an in-school suspension. Findings of this multiyear investigation can be used by educational leaders to review and to modify existing discipline policies and practices to lessen the presence of disparities in the assignment of Grades 4 and 5 girls to in-school suspension consequences. Further determining the presence of inequities in the assignment of elementary girls to exclusionary discipline consequences can justify future research investigations into alternative discipline practices for student misbehavior.

Research Questions

The following research questions were addressed in this study: (a) For Grade 4 girls, what is the effect of their ethnicity/race on assignment to an in-school suspension?; (b) For Grade 4 girls who had been assigned to an in-school suspension, what is the effect of their ethnicity/race on the number of days assigned to an in-school suspension?; (c) For Grade 5 girls, what is the effect of their ethnicity/race on assignment to an in-school suspension?; (d) For Grade 5 girls who had been assigned to an in-school suspension, what is the effect of their ethnicity/race on the number of days assigned to an in-school suspension?; (e) For Grades 4 and 5 Black, Hispanic, and White girls, to what extent are trends present in assignment to an in-school suspension?; and (f) For Grades 4 and 5 Black, Hispanic, and White girls, to what extent are trends present in the number of days assigned to an in-school suspension?

Method

Research Design

Present in this article was a causal-comparative research design (Johnson & Christensen, 2020). Student ethnicity/race was the independent variable. Three racial/ethnic groups were present: (a) White, (b) Black, and (c) Hispanic. Two dependent variables were present in this study. The first dependent variable was the rate at which Grades 4 and 5 girls were assigned to an in-school suspension during the 2016-2017, 2017-2018, 2018-2019, and 2019-2020 school years. The second dependent variable was the number of days Grades 4 and 5 girls were assigned to an in-school suspension in the 2016-2017, 2017-2018, 2018-2019, and 2019-2020 school years.

Readers should note the presence of limitations in the use of a causal-comparative research design. Definitive cause and effect relationships cannot be determined through the use of such a research design (Johnson & Christensen, 2020). When using archival data, data cannot be manipulated or changed because these events have already occurred. As such, the degree to which generalizations can be made is limited.

Participants and Instrumentation

Participants in this study were Grades 4 and 5 girls who had been assigned to an in-school suspension in

the 2016-2017, 2017-2018, 2018-2019 and/or 2019-2020 school years. In-school suspension is a disciplinary consequence in which students are assigned to an alternative educational setting on their assigned campus (Texas Education Code, 2021). A Public Information Request was submitted to the Texas Education Agency Public Education Information Management System to obtain the disciplinary data for this study. Specifically requested were data about Black, Hispanic, and White Grades 4 and 5 girls who had been assigned to an in-school suspension and the number of days they were assigned to an in-school suspension in the 2016-2017, 2017-2018, 2018-2019, 2019-2020 school years. Data for Asian girls were not included in this study due to their very low numbers who are assigned to an exclusionary discipline consequence. Once received, the data were imported into the Statistical Package for Social Sciences software program for statistical analyses.

Results

To ascertain whether differences were present in the assignment of Grades 4 and 5 girls to an in-school suspension as a function of their ethnicity/race, Pearson chi-square analyses were conducted. The Pearson chi-square was the statistical procedure used because frequency data were present for the in-school suspension (i.e., assigned or not assigned). Accordingly, chi-squares are an optimal procedure when the independent and dependent variables are both categorical. (Slate & Rojas-LeBouef, 2011). With a large state-wide sample size, the available sample size per cell was met. Therefore, the assumptions for using Pearson chi-square procedures were met.

Results for in-school suspension and Grade 4 girls

In this section, results will first be presented for the first research question by school year. Also presented in this section will be results for the second research question by school year. Regarding the 2016-2017 school year, a statistically significant difference was present in the assignment of Grade 4 girls to an in-school suspension, $\chi^2(2) = 125.02$, $p < .001$, with respect to their ethnicity/race. The effect size for this finding, Cramer's V, was small, .17 (Cohen, 1988). Grade 4 Black girls were assigned most often to an in-school suspension of the three groups of girls; followed by Hispanic girls, and then White girls. Of these three ethnic/racial groups of girls, Black girls had the lowest percent of student enrollment but the highest percentages of being assigned to an in-school suspension. Descriptive statistics for this school year are delineated in Table 1.

Table 1. Descriptive statistics for Grade 4 girls

School Year and Ethnicity/Race	n	% Not Assigned	% Assigned
2016-2017			
Black	1,313	10.5	38.9
Hispanic	1,165	36.0	34.5
White	899	53.5	26.6
2017-2018			
Black	1,343	10.3	37.7
Hispanic	1,242	36.7	34.8
White	979	52.9	27.5
2018-2019			
Black	1,383	10.5	37.8
Hispanic	1,253	38.4	34.2
White	1,025	51.1	28.0
2019-2020			
Black	1,009	55.4	40.7
Hispanic	787	31.9	31.8
White	681	12.6	27.5

With respect to the 2017-2018 school year, a statistically significant difference was present in the assignment of Grade 4 girls to an in-school suspension, $\chi^2(2) = 132.79$, $p < .001$, with respect to their ethnicity/race, small effect size, Cramer's V of .17 (Cohen, 1988). Grade 4 Black girls were assigned most often to an in-school

suspension of the three groups of girls; followed by Hispanic girls, and then White girls. Despite accounting for a small percentage of the total enrollment, Black girls had the highest percentages of being assigned to an in-school suspension. Table 1 contains the descriptive statistics for this school year.

Concerning the 2018-2019 school year, a statistically significant difference was present in the assignment of Grade 4 girls to an in-school suspension, $\chi^2(2) = 133.15$, $p < .001$, by their ethnicity/race, small effect size, Cramer's V of .17 (Cohen, 1988). Grade 4 Black girls were assigned most often to an in-school suspension of the three groups of girls; followed by Hispanic girls, and then White girls. Although Black girls constituted a smaller portion of the total enrollment in comparison to White and Hispanic girls, they were assigned to the highest percentage of in-school suspensions. Presented in Table 1 are the descriptive statistics for this school year.

For the 2019-2020 school year, a statistically significant difference was present in the assignment of Grade 4 girls to an in-school suspension, $\chi^2(2) = 68.84$, $p < .001$, by their ethnicity/race, small effect size, Cramer's V of .15 (Cohen, 1988). Despite comprising a smaller percentage of the total enrollment, Grade 4 Black girls were assigned to an in-school suspension at a rate 10% higher than Hispanic girls and nearly 13% higher than White girls. Revealed in Table 1 are the descriptive statistics for this analysis.

Results for in-school suspension and Grade 5 girls

Regarding the 2016-2017 school year, a statistically significant difference was present in the assignment of Grade 5 girls to an in-school suspension, $\chi^2(2) = 232070$, $p < .001$, by their ethnicity/race. The effect size for this finding, Cramer's V, was small, .17 (Cohen, 1988). Grade 5 Hispanic girls were assigned to an in-school suspension most often; followed by Black girls, and then White girls. Grade 5 Hispanic girls were assigned to an in-school suspension at a rate nearly 10% higher than were Black girls and 20% higher than White girls. Grade 5 Black girls were assigned to an in-school suspension at a rate nearly 10% higher than White girls. Descriptive statistics for this analysis are presented in Table 2.

Table 2. Descriptive statistics for Grade 5 girls

School Year and Ethnicity/Race	n	% Not Assigned	% Assigned
2016-2017			
Black	2,052	47.8	33.4
Hispanic	2,587	43.2	42.1
White	1,502	9.0	24.5
2017-2018			
Black	2,108	9.4	33.7
Hispanic	2,666	47.2	42.6
White	1,485	52.9	23.7
2018-2019			
Black	2,073	40.7	32.1
Hispanic	2,806	48.9	43.4
White	1,589	10.4	24.6
2019-2020			
Black	1,560	45.7	33.5
Hispanic	1,979	43.3	42.5
White	1,115	11.0	24.0

In the 2017-2018 school year, a statistically significant difference was present in the assignment of Grade 5 girls to an in-school suspension, $\chi^2(2) = 173.92$, $p < .001$, by their ethnicity/race, small effect size, Cramer's V of .15 (Cohen, 1988). Of the three groups, Hispanic girls were assigned to an in-school suspension most frequently; followed by Black girls, and then White girls. Grade 5 Hispanic girls were assigned to an in-school suspension at a higher rate than were Black or Hispanic girls, 8.9% and 18.9%, respectively. Grade 5 Black girls were assigned to an in-school suspension 10% more frequently than were White girls. Table 2 contains descriptive statistics for this school year.

For the 2018-2019 school year, a statistically significant difference was present in the assignment of Grade

5 girls to an in-school suspension, $\chi^2(2) = 165.40$, $p < .001$, by their ethnicity/race, small effect size, Cramer's V of .14 (Cohen, 1988). Hispanic girls were assigned to an in-school suspension most frequently, followed by Black girls and then White girls. Grade 5 Hispanic girls were assigned to an in-school suspension at a rate more than 10% higher than were Black girls. The rate at which Grade 5 Hispanic girls were assigned to such a consequence was nearly 20% higher than Grade 5 White girls. Grade 5 Black girls were assigned to such a consequence at a rate 8% higher than White girls. Delineated in Table 2 are descriptive statistics for this analysis.

Concerning the 2019-2020 school year, a statistically significant difference was present in the assignment of Grade 5 girls to an in-school suspension, $\chi^2(2) = 107.10$, $p < .001$, by their ethnicity/race, small effect size, Cramer's V of .14 (Cohen, 1988). Grade 5 Hispanic girls were assigned to an in-school suspension at a rate nearly 10% more frequently than Black Girls and more than 18% more frequently that White girls. Grade 5 Black girls were more than 8% more likely to be assigned to in-school suspension than were White girls. Descriptive statistics for this analysis are present in Table 2.

Results for number of days Grade 4 girls were assigned to an in-school suspension

Regarding the number of days Grade 4 girls were assigned to an in-school suspension during the 2016-2017 school year, the ANOVA yielded a statistically significant difference, $F(2, 3377) = 10.39$, $p < .001$, partial $n^2 = .006$. The effect size for this finding was below small (Cohen, 1988). Scheffe` post hoc procedures revealed that all but one pairwise comparison was statistically significant in the average number of days assigned to an in-school suspension: Grade 4 Hispanic and White girls were assigned a similar number of days to an in-school suspension. Grade 4 Black girls were assigned a statistically significant higher average number of days to an in-school suspension than were Hispanic and White girls, 0.36 and 0.25 more days, respectively. Descriptive statistics for this analysis are revealed in Table 3.

Table 3. Descriptive statistics for Grade 4 Black, Hispanic, and White girls

School Year and Ethnicity/Race	*n*	*M*	*SD*
2016-2017			
Black	1,313	2.27	1.79
Hispanic	1,165	1.91	1.79
White	899	2.02	26.6
2017-2018			
Black	1,343	2.43	2.65
Hispanic	1,242	2.05	3.96
White	979	2.25	2.29
2018-2019			
Black	1,383	2.40	2.74
Hispanic	1,253	2.03	2.10
White	1,025	2.32	2.74
2019-2020			
Black	1,009	2.24	1.98
Hispanic	787	1.85	1.56
White	681	2.14	1.95

Concerning the 2017-2018 school year and the number of days Grade 4 girls were assigned to an in-school suspension, the ANOVA yielded a statistically significant difference, $F(2, 3564) = 5.03$, $p = .007$, partial $n^2 = .003$, below small effect size (Cohen, 1988). Scheffe` post hoc procedures revealed that one pairwise comparison was statistically significant in the average number of days assigned to an in-school suspension: Grade 4 White and Hispanic girls were assigned to a similar number of days to an in-school suspension as were Grade 4 White girls and Black girls. Grade 4 Black girls were assigned a statistically significantly higher average number of days, 0.38 more days, to an in-school suspension than were Hispanic girls. Table 3 contains descriptive statistics for this school year.

With respect to the 2018-2019 school year, the ANOVA yielded a statistically significant difference, $F(2,$

3564) = 8.25, $p < .001$, partial $n^2 = .004$, below small effect size, in the number of days Grade 4 girls were assigned to an in-school suspension. Scheffe` post hoc procedures revealed that two pairwise comparisons were statistically significant. Grade 4 Black and White girls were assigned to a similar number of days to an in-school suspension. Both Grade 4 Black and White girls were assigned a statistically significantly higher average number of days to an in-school suspension than were Hispanic girls, 0.37 and 0.29 more days, respectively. Descriptive statistics for this analysis are presented in Table 3.

For the 2019-2020 school year, a statistically significant difference was revealed, $F(2, 2477) = 10.13$, $p < .001$, partial $n^2 = .008$, below small effect size. Scheffe` post hoc procedures revealed two statistically significant pairwise comparisons. Grade 4 Black and White girls were assigned to a similar number of days to an in-school suspension. Both Grade 4 Black and White girls were assigned a statistically significantly higher average number of days to an in-school suspension than were Hispanic girls, 0.39 and 0.29 more days, respectively. Descriptive statistics for this school year are delineated in Table 3.

Results for number of days Grade 5 girls were assigned to an in-school suspension

Regarding the number of days Grade 5 girls were assigned to an in-school suspension in the 2016-2017 school year, the ANOVA yielded a statistically significant difference, $F(2, 6141) = 26.88$, $p < .001$, partial $n^2 = .009$, below small effect size (Cohen, 1988). Scheffe` post hoc procedures revealed that all but one pairwise comparison was statistically significant in the average number of days assigned to an in-school suspension. Grade 5 Hispanic and White girls were assigned a similar number of days to an in-school suspension. Grade 5 Black girls were assigned a statistically significant higher average number of days to an in-school suspension than were Hispanic and White girls, 0.59 and 0.43 more days, respectively. Descriptive statistics for this analysis are revealed in Table 4.

Table 4. Descriptive statistics for Grade 5 Black, Hispanic, and White girls

School Year and Ethnicity/Race	*n*	*M*	*SD*
2016-2017			
Black	2,052	2.89	3.26
Hispanic	2,587	2.30	2.36
White	1,502	2.46	2.55
2017-2018			
Black	2,108	2.72	3.11
Hispanic	2,666	2.32	2.53
White	1,485	2.28	2.10
2018-2019			
Black	2,073	2.90	3.89
Hispanic	2,806	2.32	2.40
White	1,589	2.48	2.95
2019-2020			
Black	1,560	2.63	2.93
Hispanic	1,979	2.22	2.56
White	1,115	2.21	2.29

With respect to the 2017-2018 school year, a statistically significant difference was yielded, $F(2, 6259) = 17.04$, $p < .001$, partial $n^2 = .005$, below small effect size (Cohen, 1988). Scheffe` post hoc procedures revealed that all but one pairwise comparison was statistically significant in the average number of days assigned to an in-school suspension. Grade 5 Hispanic and White girls were assigned a similar number of days to an in-school suspension. Grade 5 Black girls were assigned a statistically significant higher average number of days to an in-school suspension than were Hispanic and White girls, 0.40 and 0.44 more days, respectively. Descriptive statistics for this analysis are presented in Table 4.

Concerning the 2018-2019 school year, a statistically significant difference was revealed, $F(2, 6468) = 21.42$, $p < .001$, partial $n^2 = .007$, below small effect size (Cohen, 1988). Scheffe` post hoc procedures revealed that all but one pairwise comparison was statistically significant in the average number of days assigned to an

in-school suspension. Grade 5 Hispanic and White girls were assigned a similar number of days to an in-school suspension. Grade 5 Black girls were assigned a statistically significant higher average number of days to an in-school suspension than were Hispanic and White girls, 0.58 and 0.42 more days, respectively. Table 4 contains the descriptive statistics for this analysis.

With respect to the 2019-2020 school year, a statistically significant difference was yielded, $F(2, 4654) = 12.44$, $p < .001$, partial $n^2 = .005$, below small effect size (Cohen, 1988). Scheffe` post hoc procedures revealed that all but one pairwise comparison was statistically significant in the average number of days assigned to an in-school suspension. Grade 5 Hispanic and White girls were assigned a similar number of days to an in-school suspension. Grade 5 Black girls were assigned a statistically significant higher average number of days to an in-school suspension than were Hispanic and White girls, 0.41 and 0.42 more days, respectively. Delineated in Table 4 are descriptive statistics for this analysis.

Discussion

In this multiyear, Texas statewide analysis, the extent to which differences were present in the frequency and number of days that Grades 4 and 5 Black, Hispanic, and White girls were assigned to an in-school suspension in the 2016-2017, 2017-2018, 2018-2019, and 2019-2020 school year was addressed. For all four school years and for both grade levels, the rates at which Black, Hispanic, and White girls were assigned to an in-school suspension were determined. Moreover, the average number of days Black, Hispanic, and White girls were assigned to an in-school suspension was calculated for each school year.

In each school year, Grade 4 Black girls were assigned the highest total number of days to an in-school suspension followed by Hispanic girls, and then White girls. In the 2016-2017 school year through the 2019-2020 school year, Black girls were assigned an average of 2,956 days to an in-school suspension. Hispanic and White girls were assigned to an average of 2,193 days and 1,963 days, respectively. Therefore, during the 2016-2017 through the 2019-2020 school years, Black girls were assigned an average of more than 750 more days to an in-school suspension each year than were Hispanic girls and nearly 1,000 more days than White girls. Presented in Table 5 are summary statistics for the total number of days assigned to Grades 4 Black, Hispanic, and White girls for each school year.

Table 5. Summary of the total number of in-school suspension days assigned to Grades 4 and 5 Black, Hispanic, and White girls

School Year and Ethnicity/Race	Grade 4	Grade 5
2016-2017		
Black	2,981	5,930
Hispanic	2,225	5,950
White	1,815	3,695
2017-2018		
Black	3,263	5,734
Hispanic	2,546	6,185
White	2,202	3,386
2018-2019		
Black	3,319	6,012
Hispanic	2,544	6,510
White	2,378	3,940
2019-2020		
Black	2,260	4,103
Hispanic	1,455	4,393
White	1,457	2,464

In each school year present, Grade 5 Hispanic girls were assigned the highest total number of days to an in-school suspension followed by Black girls, and then White girls. During the four school years present, Hispanic girls were assigned an average of 5,760 days to an in-school suspension. In comparison, Black and White girls were assigned to an average of 5,445 days and 3,371 days, respectively. Therefore, during the 2016-2017 through 2019-2020 school years, Hispanic and Black girls were assigned an average of more than

2,000 more days to an in-school suspension each year than were White girls. Presented in Table 2.5 are summary statistics for the total number of days assigned to Grade 5 Black, Hispanic, and White girls for each school year.

With respect to differences between grade levels during the 2016-2017 through 2019-2020 school years, Black, Hispanic, and White girls were assigned a higher average number of days to an in-school suspension in Grade 5 than were Black, Hispanic, and White girls in Grade 4. Grade 5 Black girls were assigned an average of 2,489 more days to an in-school suspension than were Black girls in Grade 4. Grade 5 Hispanic girls were assigned to an average of 3,567 more days than were Hispanic girls in Grade 4. Grade 5 White girls were assigned an average of 1,408 more days than were White girls in Grade 4.

Regarding the rates of in-school suspension assignment for Grade 4 girls, ethnic/racial inequities were clearly evident. In all four school years, Grade 4 Black girls had the highest rates of being assigned to an in-school suspension. Not only were Grade 4 Black girls overrepresented based on their enrollment percentage, they were also disproportionately assigned to such a consequence when compared to Hispanic and White girls. Depicted in Figure 1 are the rates of in-school suspension assignment for Grade 4 Black, Hispanic, and White girls in the 2016-2017, 2017-2018, 2018-2019, and 2019-2020 school years.
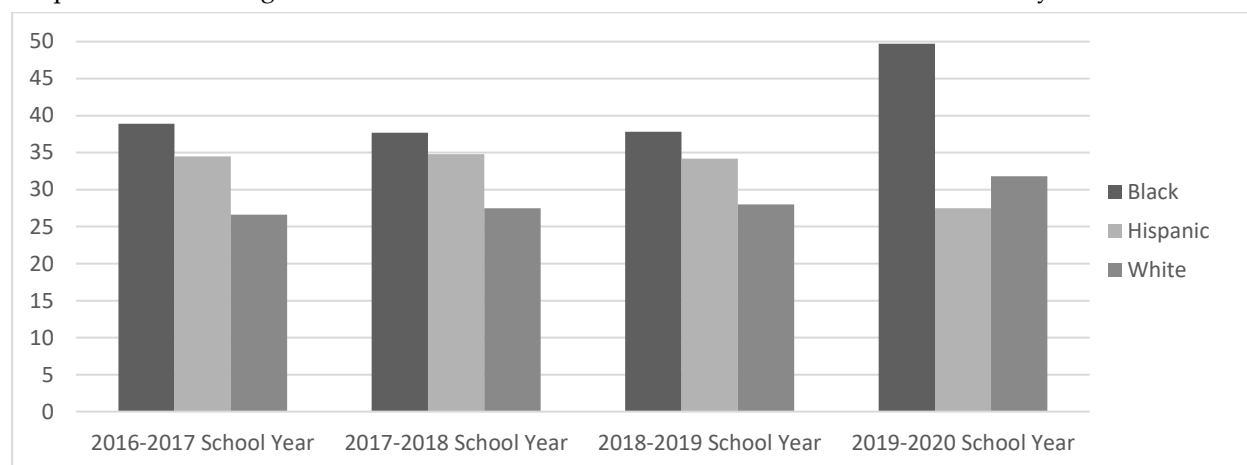
Figure 1. Rate of in-school suspension assignments to Grade 4 girls by ethnicity/race

A similar trend was present for Hispanic girls in Grade 5. In all four school years, Grade 5 Hispanic girls had the highest rates of assignment to an in-school suspension, followed by Black girls and then White girls. Despite being assigned to an in-school suspension less frequently than Hispanic girls, Grade 5 Black girls were the most overrepresented group based on their enrollment percentages. In-school suspension assignment frequencies for Grade 5 Black, Hispanic, and White girls in all four school years are displayed in Figure 2.
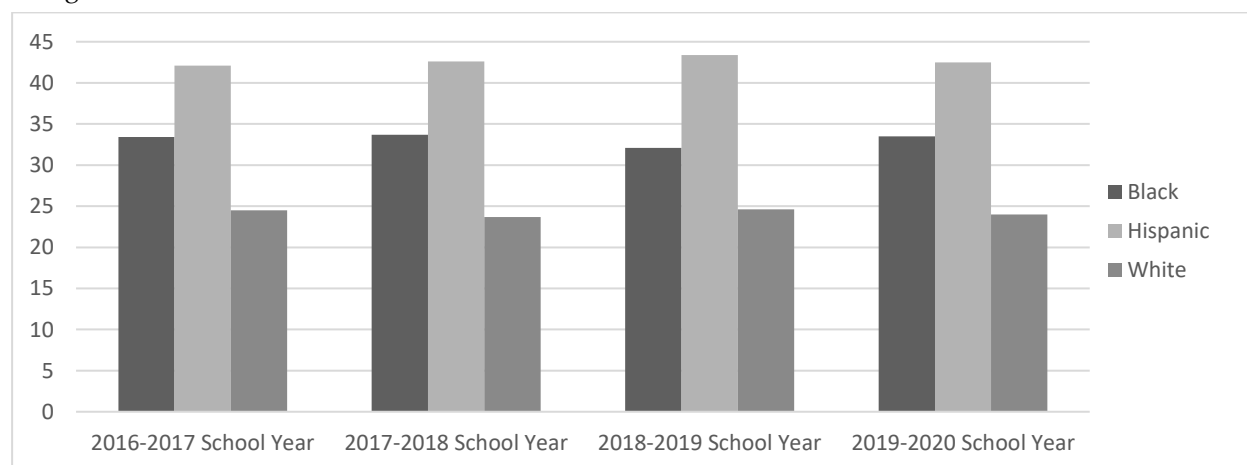
Figure 2. Rate of in-school suspension assignments to Grade 5 girls by ethnicity/race

Concerning the number of days that Grades 4 and 5 girls were assigned to an in-school suspension, clear inequities were present by ethnicity/race. In each school year, Grade 4 Black girls were assigned the highest average number of days to an in-school suspension, followed by White girls, and then Hispanic girls. Hispanic girls were assigned the lowest average number of days to an in-school suspension, despite accounting for the highest percentage of the total student enrollment. Illustrated in Figure 3 are the average number of days that Grade 4 Black, Hispanic, and White girls were assigned to an in-school suspension in each school year.
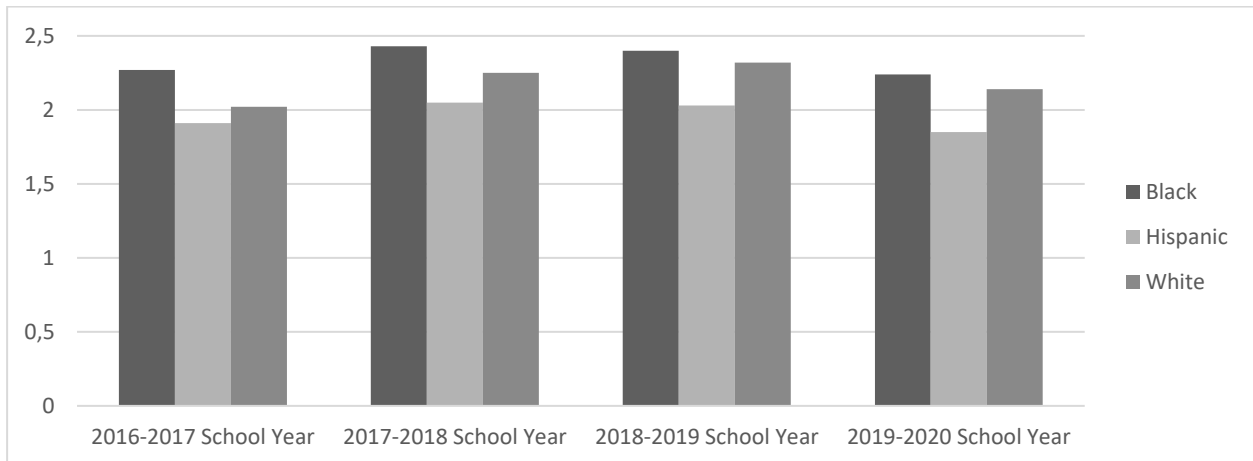
Figure 3. Average number of days assigned to an in-school suspension for Grade 4 Black, Hispanic, and White girls

Disparities in the average number of days that Grade 5 girls were assigned to an in-school suspension were also determined. In all four school years, Grade 5 Black girls were assigned the highest average number of days to an in-school suspension, followed by White girls, and then by Hispanic girls. Despite comprising the highest percentage of the total enrollment, Hispanic girls were assigned the lowest average number of days to an in-school suspension. Depicted in Figure 4 are the average number of days that Grade 5 Black, Hispanic, and White girls were assigned to an in-school suspension in each school year.
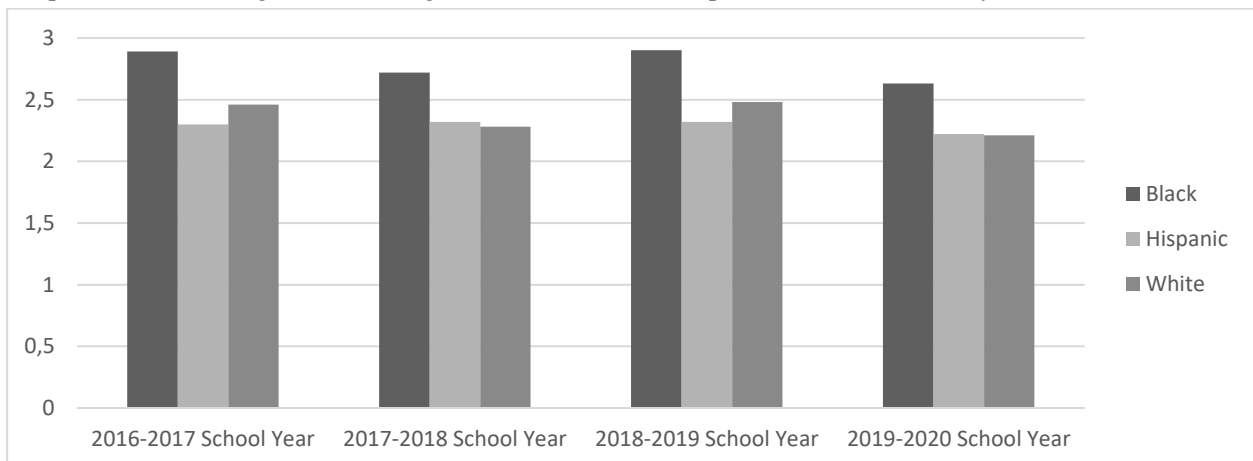
Figure 4. Average number of days assigned to an in-school suspension for Grades 5 Black, Hispanic, and White girls

Discussion

Established in this multiyear, statewide investigation was the presence of differences in the rates and number of days that Grades 4 and 5 girls were assigned to an in-school suspension by their ethnicity/race. Though disparities have been well documented by researchers (e.g., Barnes et al., 2017a; Hilberth & Slate, 2014; Miller, 2021; Morris & Perry, 2017; White & Slate, 2017) at the middle and high school level, few

researchers have established the presence of such differences at the elementary school level. In a previous Texas investigation, Tiger (2016) documented the presence of differences in the assignment of Grades 4 and 5 students to an in-school suspension by their ethnicity/race. In both Grades 4 and 5, Black students were assigned to an in-school suspension at statistically significantly higher rates that were White students. In her study, Tiger (2016) determined that Hispanic girls were assigned to an in-school suspension less frequently than were Black girls or White girls. For this article, Hispanic girls, along with Black girls in both Grades 4 and 5, were assigned to an in-school suspension at higher rates than were White girls. Of note in this investigation is that Grades 4 and 5 Hispanic girls were assigned to a lower average number of days in an in-school suspension.

Conclusion

In this Texas multiyear investigation, the extent to which student ethnicity/race was related to the rate and number of days that Grades 4 and 5 Black, Hispanic, and White girls were assigned to an in-school suspension was addressed. Separate analyses were conducted for each grade level and for each of the four school years. In all four school years, Grades 4 and 5 Black and Hispanic girls were assigned to an in-school suspension at a statistically significantly higher rate than White girls. Black girls in both Grades 4 and 5 were assigned to an in-school suspension at the highest rate, despite comprising the small percentage of the total enrollment. In each of the four school years, Grades 4 and 5 Black and White girls were assigned a statistically significantly higher number of days in an in-school suspension than Hispanic girls. In each of the of the four school years, and for both grade levels, Black girls were assigned to the highest number days in an in-school suspension.

Implications and Recommendations

As a result of the findings of this study, implications for practice can be made. School district and campus administrators are encouraged to analyze discipline data for their school district or campus. They are specifically encouraged to focus on the rate and number of days that girls in elementary schools are being assigned to an in-school suspension as a method of managing behavior. These administrators should evaluate their behavior management practices in an effort to minimize the use of exclusionary discipline techniques. Campus level administrators should also consider the well documented effects that assignment to an in-school suspension has on students' academic achievement as a result of lost instructional time. Campus leaders should analyze student achievement data to determine if exclusionary consequence use is negatively influencing student academic performance.

The results of this study could also be used as evidence to support policy changes. School districts and school boards should examine existing policy to determine if changes can be made to lessen the frequency at which exclusionary discipline measures are utilized. More specifically, the development of a district wide behavioral management plan that includes clear goals and action steps for the reduction of such disparities may be effective in reducing the differences in exclusionary discipline assignment. This plan may include a focus on the use of discipline management techniques that better preserve instructional time while effectively managing behavior.

In this multiyear, statewide study, a relationship between assignment to an in-school suspension by ethnicity/race was established for elementary school girls. Based on the results of this study, several recommendations for future research studies can be made. First, an investigation to determine the extent to which assignment to an in-school suspension in Grades 4 and 5 is related to student ethnicity/race is warranted. Secondly, researchers should examine the relationship between assignment to an in-school suspension and student economic status. Additionally, these studies should be replicated for boys enrolled in elementary schools. Finally, researchers are encouraged to replicate this investigation in other states to determine the extent to which the results discussed herein are generalizable to other states.

Declarations

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Examining English Teachers' Perspectives on Competency Levels in Technopedagogical Education

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Abstract

This study aimed at analyzing English teachers' technopedagogical education competence in Türkiye. This study was carried out as a quantitative design and survey model study. Within the scope of the study, the data collected from 218 English teachers were evaluated. This sample was chosen through the convenience sampling method among the teachers in the population. With the purpose of identifying the technopedagogical levels of English teachers, the "Technopedagogical Content Knowledge Scale" was used in the study. In the analysis of the data, descriptive statistics, frequency, percentage, average, Kruskal Wallis, Mann Whitney U tests were used. As a result of the study, it was determined that English teachers' technopedagogical education level is "Advanced". A significant difference was determined in Technopedagogical education competencies according to various personal characteristics of teachers. Within the scope of the research, it is recommended that future research should be carried out in-depth studies on the reasons why English teachers' technopedagogical education competency levels are high.

Introduction

With the speedy development of technology, the thought patterns of teachers have changed and pedagogies blended with new technologies replaced traditional pedagogies where teachers were the main focus. Pedagogies blended with this technology not only changed education methods but the temperament of teachers as well (Igbinosa, 2023). Today's people are increasingly using technology and it is becoming an inseparable part of their lives. Regardless of which age group, the fact that students are surrounded by technology has greatly popularized the idea of making use of technology in educational environments as well (Başal, 2015). It is noteworthy that language and technology have nested in each other since the invention of writing about five thousand years ago (Chun et al., 2016). In the area of foreign language teaching, there is more need for both scientific and technological innovations compared to other social sciences branches as well as to be able to create visual and audio material in the target language and to use them in learning environments (Kartal, 2005). Information and communication technologies such as personal computers, laptops, printers, LCD projectors, handheld devices, iPods, cell phones, and the internet have increasingly become widespread and started being used in schools as well (Martinovic & Zhang, 2012).

> The most important role in using these technologies in an accurate, efficient manner with successful results in education falls on the shoulders of foreign language teachers. At this point, it is extremely important that foreign language teachers acquire this competency in the related departments of universities (Başal, 2015).

With the purpose of allowing teachers to accurately understand the knowledge required to place technology in their learning environments in an efficient manner and use it in the area of educational research, the Technopedagogical Content Knowledge (TPCK) has been presented as a theoretical framework (Schmidt et al., 2009). TPCK, which has been given a place in the literature as a design model,

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has inspired numerous studies as well (Koehler & Mishra, 2005). This model is an approach that was borne out of the interaction of technological, pedagogical, and content knowledge with each other which is necessary for the efficient integration of technology (Yurdakul, 2011). In this respect, in the Turkish Education Association's (TED) (2009) study titled "General Competencies for Teaching Profession", it has been explained that the reason why teachers should have Technopedagogical Content Knowledge (TPCK) to achieve academic success is the need to be knowledgeable on how the integration of subject area and technology should be carried out.

When the literature is reviewed, it can be seen that studies on technopedagogical competency in Turkey have increased in recent years. When these studies are analyzed, it is possible to see that a majority of them focus on Turkish, pre-school, mathematics teachers and teacher candidates. For instance, Kaya (2019) has carried out a study on the technopedagogical competencies of social studies teachers and their smart-board self-sufficiency and Karasu (2019) has carried out a study on the analysis of the content knowledge of Turkish language and literature teachers (TPCK) in terms of various variables. Solmaz (2019) has carried out a study analyzing the relationship between the individual innovation levels of teachers and their pedagogic education competency, whereas Kimav (2019) has worked on an in-service education program plan which was designed to develop technopedagogical skills in English education.

When the international literature is reviewed, Swallow and Olofson (2017) analyzed the contextual factors which were considered to contribute to teachers' developing TPCK and teaching practices in a qualitative multiple case study. Young et al. (2019) have aimed to evaluate the results of mathematics teachers' three-week vocational education on TPCK. In another study, it was questioned whether different teacher training institutes in Holland were sufficient in terms of developing TPCK levels that the teacher candidates need for early technology literacy (Voogt & McKenney, 2017). However, a study that analyzed the technopedagogical education competency of English teachers was not found. It is considered that the data obtained in this study will contribute to both current English teachers' efficient use of technology and the development of new teachers in this area. Additionally, it is considered that it will be beneficial in terms of identifying the scope of the in-service training current English teachers need or updating the current training programs. In this light, the technopedagogical education competency of English teachers were analyzed in terms of the following: Gender, type of school, seniority, type of high-school graduated from, type of faculty graduated from, having completed pedagogical formation or not, academic education level, having completed English preparatory class or not.

Method

This study was carried out as a quantitative design and survey model study. The sample of the study consists of a total of 218 English teachers who were working in Altıeylül and Karesi central districts in the city of Balıkesir in the 2019-2020 academic year. This sample was chosen through the convenience sampling method among the teachers in the population. Convenience sampling is a method that is easy to access suitable and volunteering participants for the study and is advantageous both in terms of time and workforce (Gravetter & Forzano, 2012). In this study, 170 (78%) of the participants in the study group are female, and 48 (22%) are male.

Data Collection Tools

A personal information form and the Technopedagogical Content Knowledge Scale were used for the collection of the demographic data of the teachers who participated in the study. The other data collection tool used in the study, the Technopedagogical Content Knowledge Scale (TPACK), was developed by by Yurdakul et al. (2012) and consists of 33 items and 4 factors as, "design, exertion, ethics, and proficiency". Cronbach's Alpha value of the "TPACK Scale" applied to the study group is 0.974.

The positive attitude items in the scale were scored as 5–4–3–2–1 and the negative attitude items as 1–2–3–4–5 and reverse coding was done in the analysis process. In the TPACK Scale, a (5-1)/3 evaluation interval was taken as the basis and it was accepted as low level when the arithmetic average score was within the

"1 – 2,33" interval; as medium level when it was within the "2,34 – 3,67" interval and as advanced level when it was within the "3,68 – 5,00" interval in terms of evaluation criteria (Yurdakul, 2011).

It includes information about the purpose, significance, conceptual – theoretical framework and study in general. Palatino Linotype style 10 font, single line spacing, the first line indented 1 cm, 6 nk space after paragraphs. References should be prepared based on APA 7 reference and citing displaying essences. Citing should be given like this example (Adams, 2014; Brown & Caste, 2004; Toran et al., 2019). Direct quotations are written within "". If the direct quotation is longer than 40 words, then it should be written without using "" as a separate paragraph, indented and in 8 fonts.

Data Collection Process

The data collection tools used in the study were applied online to the English teachers working in Altıeylül and Karesi districts in the city of Balıkesir. The scale was sent to the school principals working in Altıeylül and Karesi districts through the digital environment and then forwarded to the English teachers by their principals. During the data collection process, the steps were carried out in line with the scientific research ethical rules, and the collected data were kept private within the personal data protection law by the researcher. Informed consent was obtained from all participants, and they were assured that their responses would be anonymized and treated confidentially throughout the research process.

Data Analysis

Various statistical methods were employed in the analysis of the data. Descriptive statistics, frequency distribution, percentage calculations, and mean values were utilized to reveal the general characteristics of the obtained data. Additionally, non-parametric tests such as the Kruskal-Wallis test and Mann-Whitney U test were applied to identify differences between groups.

Findings

It was concluded that the 0.001 significance level according to the Kolmogorov-Smirnov test and the 0.000 significance level according to the Shapiro-Wilk test done on the TPACK scale were smaller than the 0.05 value ($p<0.05$). Therefore, the data set related to the TPACK scale does not display normal distribution either. As a result, non-parametric tests were made use of since the data did not display normal distribution in the analyses carried out with this data set.

The Score Averages of the English Teachers in Terms of the TPACK Scale

The score averages of the English Teachers in terms of the TPACK scale are given in Table 1.

Table 1. The score averages

TPACK Scale	N	Min.	Max.	$\bar{X}$	SD
	218	2.21	5.00	4.18	.54468

It can be seen that the score average of the teachers in terms of the TPACK scale is 4.18. It is known that the "3.68 – 5.00" interval among the TPACK scale level intervals is advanced. This shows that the score averages of the English teachers in terms of the TPACK scale is within the "Advanced" level interval.

The Score Averages of the English Teachers in Terms of the TPACK Scale

The answer to the second sub-problem of the study, "Do the technopedagogical education competency of the English teachers display differences in terms of gender?" was sought. The findings related to the results of the Mann Whitney U Test analysis are shown in Table 2.

Table 2. Comparison of the gender

	Gender	N	Mean rank	Mean total	U	p
Design	Female	170	109.48	18612.00	4077.000	.994
	Male	48	109.56	5259.00		
	Total	218				
Exertion	Female	170	112.17	19069.50	3625.500	.238
	Male	48	100.03	4801.50		
	Total	218				
Ethics	Female	170	114.74	19506.50	3188.500	.020
	Male	48	90.93	4364.50		
	Total	218				
Proficiency	Female	170	112.69	19158.00	3537.000	.155
	Male	48	98.19	4713.00		
	Total	218				

As it can be seen from Table 2, a significance difference as found in the ethics sub-dimension of the English teachers' technopedagogical education competency in favor of female English teachers (p= .020 < 0.05).

English Teachers' Technopedagogical Competency in Relation to School Types

In the study, the answers to the question, "Do the technopedagogical education competency of the English teachers display differences in terms of the type of school they worked in?" was sought. The findings related to the Kruskal Wallis Test analysis results are given in Table 3.

Table 3. Comparison of the type of school

	Type of school	N	Mean rank	H	p
Design	State Primary School	22	117.23	10.231	0.69
	State Middle-school	123	107.33		
	State High-school	55	98.95		
	Private Primary school	10	158.10		
	Private Middle-school	5	151.20		
	Private High-school	3	103.83		
	Total	218			
Exertion	State Primary school	22	99.36	8.594	.126
	State Middle-school	123	110.34		
	State High-school	55	100.32		
	Private Primary school	10	136.95		
	Private Middle-school	5	170.90		
	Private High-school	3	124.00		
	Total	218			
Ethics	State Primary school	22	113.89	3.638	.603
	State Middle-school	123	109.41		
	State High-school	55	101.38		
	Private Primary school	10	119.00		
	Private Middle-school	5	148.10		
	Private High-school	3	133.83		
	Total	218			
Specialty	State Primary school	22	106.45	10.932	.53
	State Middle-school	123	115.37		
	State High-school	55	90.25		
	Private Primary school	10	125.60		
	Private Middle-school	5	164.20		
	Private High-school	3	99.33		
	Total	218			

When Table 3 is analyzed, it can be seen that the technopedagogical competency of English teachers' does not display any differences in terms of school type the teachers work in in any of the sub-dimensions (p>.05).

English Teachers' Technopedagogical Competency and Professional Seniority

In the study, the answer to the question, "Do the technopedagogical education competency of the English teachers display differences in terms of their Professional seniority?" was sought in relation to another sub-problem. The findings related to the Kruskal Wallis Test analysis results are given in Table 4.

Table 4. Comparison of the professional seniority

	Seniority	N	Mean Rank	H	p
Design	1-5 years	53	125.64	6.809	.078
	6-10 years	53	114.75		
	11-15 years	47	97.96		
	16 years and over	65	100.41		
	Total	218			
Exertion	1-5 years	53	111.08	3.675	.299
	6-10 years	53	119.68		
	11-15 years	47	95.73		
	16 years and over	65	109.87		
	Total	218			
Ethics	1-5 years	53	122.11	3.654	8.114
	6-10 years	53	111.68		
	11-15 years	47	103.44		
	16 years and over	65	101.82		
	Total	218			
Proficiency	1-5 years	53	126.57	8.114	0.44
	6-10 years	53	113.48		
	11-15 years	47	92.27		
	16 years and over	65	104.80		
	Total	218			

As it can be seen in Table 4, a significant difference was found in the specialty sub-dimension of the technopedagogical education competency of the English teachers whose professional seniority was between 6-10 years (p= .044 < 0.05).

English Teachers' Technopedagogical Competency and High School Graduation

In the study, the answer to the question, "Do the technopedagogical education competency of the English teachers display differences in terms of the high-school they graduated from?" was sought in relation to another sub-problem. The findings related to the Kruskal Wallis Test analysis results are given in Table 5.

Table 5. Comparison of high school graduation

	Type of high-school graduated from	N	Mean Rank	H	p
Design	Anatolian High-school	75	106.54	4.058	.541
	Anatolian Teacher Training High-school	47	112.06		
	Super High-school	48	100.02		
	Super High-school	35	115.33		
	Collage	10	137.00		
	Vocational High-school	3	135.33		
	Total	218			
Exertion	Anatolian High-school	75	100.33	10.247	.069
	Anatolian Teacher Training High-school	47	100.61		
	Super High-school	48	113.54		

	General High-school	35	120.30		
	Collage	10	159.85		
	Vocational High-school	3	119.50		
	Total	218			
Ethics	Anatolian High-school	75	116.07	4.048	.543
	Anatolian Teacher Training High-school	47	97.32		
	Super High-school	48	113.61		
	General High-school	35	102.76		
	Collage	10	125.55		
	Vocational High-school	3	95.50		
	Total	218			
Specialty	Anatolian High-school	75	111.83	3.677	.597
	Anatolian Teacher Training High-school	47	105.94		
	Super High-school	48	104.70		
	General High-school	35	111.00		
	Collage	10	137.75		
	Vocational High-school	3	72.17		
	Total	218			

As it can be seen from Table 5, a significant difference was not observed in the technopedagogical education competency of the English teachers in terms of the type of high-school they graduated from (p>.05).

English Teachers' Technopedagogical Competency and College Graduation

In the study, the answer to the question, "Do the technopedagogical education competency of the English teachers display differences in terms of the faculty they graduated from?" was sought. the findings related to the Kruskal Wallis Test analysis results are given in Table 6.

Table 6. Comparison of faculty type

	Type of faculty graduated from	N	Mean Rank	H	p
	Faculty of Education	161	101.25	11.628	.003
	Faculty of Science and Letters	55	131.19		
Design	Faculty of Engineering	2	177.00		
	Total	218			
	Faculty of Education	161	98.46	19.150	.000
	Faculty of Science and Letters	55	141.35		
Exertion	Faculty of Engineering	2	122.25		
	Total	218			
	Faculty of Education	161	101.44	12.858	.002
	Faculty of Science and Letters	55	134.81		
Ethics	Faculty of Engineering	2	62.50		
	Total	218			
	Faculty of Education	161	102.54	8.780	.012
	Faculty of Science and Letters	55	130.85		
Specialty	Faculty of Engineering	2	83.00		
	Total	218			

As it can be seen from Table 5, a significant difference was found in the technopedagogy design sub-dimension of the English teachers who graduated from the faculty of engineering (p= .003 < .05). On the other hand, a significant difference was found in the technopedagogy sub-dimensions of exertion (p= .000 < .05), ethics (p= .002 < .05) and specialty (p= .012 < .05).

English Teachers' Technopedagogical Competency and Pedagogical Formation Completion

In the study, the answer to the question, "Do the technopedagogical education competency of the English teachers display differences in terms of having completed pedagogical formation or not?" The findings

related to the Mann Whitney U Test analysis results are given in Table 7.

Table 7. Comparison of having completed pedagogical formation

	Pedagogical formation	N	Mean Rank	Mean Total	U	p
Design	Yes	211	108.14	22818.00	452.000	.080
	No	7	150.43	1053.00		
	Total	218				
Exertion	Yes	211	108.47	22888.00	522.000	.186
	No	7	140.43	983.00		
	Total	218				
Ethics	Yes	211	109.29	23060.50	694.500	.787
	No	7	115.79	810.50		
	Total	218				
Specialty	Yes	211	110.48	23310.50	532.500	.205
	No	7	80.07	560.50		
	Total	218				

As it can be seen in Table 6, a significant difference was not seen in the English teachers' technopedagogical education competency in terms of having completed pedagogical formation or not ($p>.05$).

English Teachers' Technopedagogical Competency and Academic Education Level

In the study, the answer to the question, "Do the technopedagogical education competency of the English teachers display differences in terms of their academic education level?" The findings related to the Kruskal Wallis Test analysis results are given in Table 8.

Table 8. Comparison of the academic education levels

	Academic education level	N	Mean Rank	H	p
Design	Undergraduate	191	105.87	5.655	0.59
	Graduate	26	136.87		
	Doctorate	1	90.50		
	Total	218			
Exertion	Undergraduate	191	110.43	.737	.692
	Graduate	26	104.38		
	Doctorate	1	64.00		
	Total	218			
Ethics	Undergraduate	191	112.71	5.751	.056
	Graduate	26	89.85		
	Doctorate	1	7.50		
	Total	218			
Specialty	Undergraduate	191	107.99	2.149	.341
	Graduate	26	122.79		
	Doctorate	1	51.50		
	Total	218			

As it can be seen in Table 8, the technopedagogical education competency of the English teachers do not display any differences in terms of their academic education levels ($p>.05$).

English Teachers' Technopedagogical Competency and Completion of English Preparatory Class

In the study, the answer to the question, "Do the technopedagogical education competency of the English teachers display differences in terms of having completed English preparatory class or not?" The findings related to the Mann Whitney U Test analysis results are given in Table 9.

Table 9. Comparison of the having completed English preparatory class

	English preparatory class education	N	Mean rank	Mean total	U	p
Design	Yes	166	105.37	17491.00	3630.000	.083
	No	52	122.69	6380.00		
	Total	218				
Exertion	Yes	166	104.97	17425.00	3654.000	.057
	No	52	123.96	6446.00		
	Total	218				
Ethics	Yes	166	109.95	18251.00	4242.000	.851
	No	52	108.08	5620.00		
	Total	218				
Specialty	Yes	166	108.57	18022.00	4161.000	.693
	No	52	112.48	5849.00		
	Total	218				

As it can be seen in Table 9. the technopedagogical education competency of the English teachers do not display any differences in terms of having completed English preparatory class or not (p>.05).

Discussion and Conclusion

In this study, the TPACK levels of English teachers were analyzed in terms of various variables and 218 English teachers participated in the study. It was seen that the technopedagogical education competency of the English teachers according to the scores averages they received from the TPACK scale is in the "Advanced Level" interval. When the literature is reviewed. it can be seen that while Bağra (2022). Kaya (2019). Keleş (2019) and Sağlam-Kaya (2007) indicated similar results in their studies. there is a study in which the opposite results are shown (Özgün-Koca et al, 2010). The teachers' high level of TPACK can be explained with technology's existence in all area of our lives and the widespread of its use. The difference in the study results might be related with different samples.

It was analyzed whether the teachers' technopedagogical education competency displays differences in terms of the gender variable and the analysis results show that there is a significant difference in terms of the ethics sub-dimension of the English teachers' technopedagogical education competency, in favor of the female English teachers. Similarly, there are other studies in the literature which show that female teachers are more ethical compared to make teachers in terms of use of technology (Turan, 2018). In addition, according to the results of Kaya's study (2019), it was determined that the technopedagogical education competency of social studies teachers are at an advanced level and that their competency does not display any significant differences in terms of gender, age and seniority. Similarly, according to the findings of Keleş's study (2019), it was determined that the competency of social studies teachers is high according to their TPACK sub-dimensions.

It was analyzed whether the teachers' technopedagogical education competency displays differences in terms of the type of school they work in and the analysis results show that none of the sub-dimensions of the English teachers' technopedagogical education competency display differences according to the type of school the teachers work in. While there are no other studies with such a finding in the literature, it can be stated that this is an expected result.

Teachers' technopedagogical education competency displays differences in terms of the professional seniority variable and according to the analysis results, a significant difference was found in the specialty sub-dimension of the technopedagogical education competency of the English teachers, whose professional seniority is between 6-10 years. Similarly, Bağra (2022) has reached the conclusion in his study that as professional seniority increases, technopedagogical education competency decreases. There are other studies with similar findings (Kocaoğlu & Akgün, 2013; Yılmaz, 2015). This can be explained with changing with age and resistance to innovations. There is a study with opposite results as well (Topaloğlu, 2008).

It was analyzed whether the teachers' technopedagogical education competency displays differences in terms of the type of high-school they graduated from and according to the analysis results, a significant difference was not found in terms of this variable. While there are no similar studies in the literature, it can be stated that this is an expected result.

It was analyzed whether the teachers' technopedagogical education competency displays differences in terms of the type of faculty they graduated from and according to the analysis results, a significant difference was found in the design sub-dimension of the technopedagogical education competency of the English teachers who are faculty of engineering graduates. This result shows that the English teachers who are graduates of the faculty of engineering can design their lessons better by making use of technology. A significant difference was determined in the exertion, ethics and specialty sub-dimensions of the technopedagogy for English teachers who are graduates of the faculty of science and letters. This shows that the English teachers who are graduates of the faculty of science and letters are more dependent on ethical rules and more competent in areas which require specialty.

It was analyzed whether the teachers' technopedagogical education competency displays differences in terms of the having completed pedagogical formation or not variable and according to the analysis results, a significant difference was not found. This result can be explained with the fact that technology lessons exist in both education faculties and in formation programs (Çelikkaya, 2017).

It was analyzed whether the teachers' technopedagogical education competency displays differences in terms of academic education level and according to the analysis results, a significant difference was not found. This result is similar to the result of Erbaş et al (2016)'s study, while it is not similar to Bağra (2022) and Karamustafaoğlu's (2006) results. The widespread of use of and familiarity with technology in society might be the reason why technopedagogical education competency does not change according to academic education level. Achieving different results in studies might be due to different samples.

It was analyzed whether the teachers' technopedagogical education competency displays differences in terms of having completed English preparatory class or not variable and according to the analysis results, a significant difference was not found. This is an expected result in terms of teachers' technopedagogical education competency.

Implications

As a result of the scores the English teachers received from the TPACK scale, it was seen that their technopedagogical education competency is "Advanced level". It is considered that studies on the reasons why English teachers' level is advanced might be beneficial to increase the levels of other branch teachers. Female English teachers received higher scores in the "ethics" sub-dimension of technopedagogical education competency compared to male teachers. Male teachers might be given in-service training to raise their competency in terms of ethics. It was seen that the English teachers with 6-10 years of professional seniority were at a more advanced level in the specialty sub-dimension of their technopedagogical education competency. The necessary in-service training can be planned by studying the reasons why the other teachers serving in the same seniority interval are not at the same level. It was found that the English teachers who were graduates of Faculty of Science and Letters were at a higher level in the "exertion, ethics and specialty" sub-dimensions. The reasons for the low levels of English teachers who are graduates of different faculties can be analyzed and this lack can be corrected. In addition, the reasons why English teachers who are graduates of Faculty of Engineering have a higher level in the "design" sub-dimension compared to the teachers who are graduates from other faculties.

Declarations

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Economic Status Differences in Reading Performance: A Multiyear Study of Grade 4 Black Boys in Texas

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Abstract

In this statewide, multiyear analysis conducted in the United States, the extent to which Grade 4 Black boys differed in their reading performance on the Texas state-mandated reading assessment as function of their economic status (i.e., economically disadvantaged and not economically disadvantaged) was determined. Analysis of three school years of Texas statewide data yielded statistically significant differences in reading by the economic status of Black boys. In all three school years and in all three reporting categories, Black boys who were in poverty answered statistically significantly fewer items correctly than Black boys who were not in poverty. Similarly, statistically significantly lower percentages of Black boys who were in poverty met the three grade level standards than Black boys who were not in poverty. Implications for policy and for practice, along with recommendations for future research, were provided.

Introduction

In 2019, the average percentage of children who lived in poverty was 29% and over 7,000,000 children are negatively influenced by poverty (National Center for Children in Poverty, 2019) in the United States. This percentage means that almost one in five children lives in poverty. Among all children under 18 years in the United States, 38% live in families with low incomes and 17% are regarded as being poor. Children are overrepresented among the poor as they represent 23% of the population but comprise 32% of all people in poverty. Many more children live in families with incomes just above the poverty threshold (National Center for Children in Poverty, 2019).

According to Jones et al. (2017), poverty is the strongest predictor of learning challenges and poor academic outcomes for children. For the past several decades, increased focus has been placed on the relationships of poverty and reading (e.g., Conradi et al., 2016; Reardon, 2013). As student poverty increases, reading performance becomes increasingly poorer. Sharkins et al. (2017) established that students living in poverty have poorer academic performance than their more affluent peers. As with grades, graduation rates, college admission, and degree completion, students in poverty underperform more privileged students on standardized assessments (Lee & Slate, 2014).

In the United States of America, 58% of Black children live in low-income homes. This statistic is more than double the percentage of White children, 26%. Triple the amount of Black children (30%) live in poor homes than White children (10%) and more than triple the amount live in deep poverty, 14%, compared to 4% of White children under the age of 18 (National Center for Children in Poverty, 2019).

With respect to the state of interest for this article, Texas, researchers have investigated the relationships of poverty to the reading performance of Texas Grade 3 students. McGown (2016) conducted a study to determine the extent to which differences were present for Texas Grade 3 students on the State of Texas Assessment of Academic Readiness (STAAR) Reading test as a function of their economic status. Statewide data from the 2012-2013, 2013-2014, and 2014-2015 school years on the three Grade 3 STAAR Reading

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Reporting Categories were analyzed for three groups of students: students who did not qualify for the federal free or reduced price lunch program (i.e., Not Poor), students who qualified for the reduced price lunch program (i.e., Moderately Poor), and students who qualified for the free lunch program (i.e., Extremely Poor) student groups. McGown (2016) established the presence of a stair-step effect for all three school years in all three reporting categories. Texas Grade 3 students who were Extremely Poor had statistically significant lower reading scores than students who were Moderately Poor and students who were Not Poor. Students who were Moderately Poor had lower reading test scores that students who were Not Poor all three school years. Regarding overall passing rates, McGown (2016) documented that students who were Extremely Poor had lower passing rates on the STAAR Level II Final Satisfactory Performance Standard in reading that students who were Moderately Poor and students who were Not Poor. Moreover, students who were Moderately Poor had lower passing rates that students who were Not Poor. Statistically significant results were present in all three school years.

In a similar study but of Grade 4 Texas students, Harris (2018) analyzed STAAR Reading test scores using the same three student economic groups as McGown (2016). Data were analyzed for the 2012-2013, 2013-2014, and 2014-2015 school years. Statistically significant differences were established in not only overall reading performance, but also in all three Reading Reporting categories in all three years examined. The higher the degree of poverty, the lower STAAR Reading test scores were. Moreover, the higher the degree of poverty, the lower the percentages of students who met the passing standard on the STAAR Reading exam. A stair step pattern existed. Aligned with the findings from McGown's (2016) investigation on Texas Grade 3 students, economic achievement gaps in reading were clearly present for Texas Grade 3 students.

Recently, Hamilton and Slate (2019) documented the presence of differences in reading achievement for Hispanic and Black students by their economic status. They compared the reading performance of Texas students who were in poverty to their peers who were not economically disadvantaged. Utilizing data from the 2015-2016 state mandated reading assessment, statistically significant differences were established in the reading performance of Hispanic and Black children as a function of poverty. Statistically significantly lower percentages of Hispanic and Black children who were economically disadvantaged met the three Grade Level Reading Standards on the assessment than their counterparts who were not economically disadvantaged. Almost twice as many (59.2%) Hispanic students who were Not Poor met the standard in reading than Hispanic students who were Poor (29.1%). Nearly triple the percentage of Hispanic students (35.6%) who were Not Poor performed at the Masters Grade Level standard than Hispanic students (13.9%) who were Poor. More than twice as many Black students (50.7%) who were Not Poor met the reading assessment standards than Black students (21.8%) who were Poor. The gap at the Masters Grade Level standard widened even more as only 9.4% of Black students who were Poor achieved mastery whereas 29.4% of Black students who were Not Poor achieved mastery. Hamilton and Slate (2019) recommended that researchers replicate their study to determine the extent to which their results were generalizable to students at other grade levels.

In 2017, Harris and Slate analyzed the reading performance of Texas Grade 3 students to determine the effects of poverty on the reading achievement of Grade 3 Black boys from the 2015-2016 administration of the STAAR test. Three levels of performance existed, Phase I or unsatisfactory performance, Phase II or satisfactory, and Phase III or advanced performance. As the poverty level increased, reading performance decreased. A stairstep effect was present, as the percentage of Black boys who were Extremely Poor increased, the percentage of Black boys who met the reading standard decreased.

In a two-decade examination of historical racial/ethnic disparities in academic achievement by economic status, Paschel et al. (2018) examined the interaction of race/ethnicity and poverty gaps in both mathematics and reading achievement from 1986-2005 for White, Black, and Hispanic students in three age groups (5-6, 9-10, and 13-14. They established that, across the 20-year time period, gaps between White students in poverty and students of color in poverty increased, whereas the gaps between White students and Hispanic students who were not in poverty narrowed. They concluded that understanding the nature of achievement gaps requires the examination of race/ethnicity and income simultaneously.

Statement of the Problem

With the inception of Every Student Succeeds Act (United Department of Education, 2017), academic performance by ethnicity/race is monitored, but in Texas, gender is not one of the monitored subgroups. As such, a decline in Black boys' knowledge could potentially be missed due to a lack of required monitoring. Taking into account that only a third of children in the United States read on grade level (Sanchez, 2018), it is imperative that all performance differences be identified. Hernandez (2011) concluded that 26% of students in poverty and who do not read on grade level in Grade 3 will not graduate from high school. Black and Hispanic students are much more likely to be economically disadvantaged, at a rate almost twice of the next-closest ethnic/racial group (National Center for Children in Poverty, 2017). The State of Texas has a 5% higher poverty rate than does the United States as a whole (National Center for Children in Poverty, 2017), and more than 60% of Texas public school students are classified as economically disadvantaged (Texas Education Agency, 2021). An investigation intof the reading performance of Grade 4 Black boys as a function of their economic status since the inception of the Every Student Succeeds Act in 2015 is needed.

The overarching purpose of this investigation was to determine the extent to which Grade 4 Black boys might differ in their reading performance on the Texas state-mandated assessment as a function of their economic status (i.e., Not Poor, Moderately Poor, and Extremely Poor). Specifically addressed was the degree to which Grade 4 Black boys differ in their understanding across genres, comprehension and analysis of literary texts, and comprehension and analysis of informational texts by the economic status. Also examined was their performance at the three different grade levels (i.e., student's standard, recommended, and advanced) as a function of their economic status. The final purpose was to determine the extent to which trends might be present in the reading performance of Grade 4 Black boys by their economic status across three school years.

Although researchers have conducted numerous investigations into the achievement gaps between White and Asian students and their Black counterparts, little concerted national or statewide effort has been addressed toward the education and social outcomes of Black males, in particular. Through investigating this issue, the intention is to add to the available research literature regarding the need for a specified office at the national or state level with a primary focus on the success of Black males in reading and other achievement indicators.

Research Questions

The following overarching research question were addressed in this study: What is the difference in the reading performance of Grade 4 Black boys as a function of their economics status (i.e., Not Poor, Moderately Poor, and Extremely Poor)? Specific sub-questions under this overarching research question were: (a) What is the difference in understanding across genres (i.e., STAAR Reading Reporting Category 1) by the economic status of Grade 4 Black boys?; (b) What is the difference in comprehension and analysis of literary texts (i.e., STAAR Reading Reporting Category 2) by the economic status of Grade 4 Black boys?; (c) What is the difference in comprehension and analysis of informational texts by the economic status of Grade 4 Black boys (i.e., STAAR Reading Reporting Category 3)?; (d) What is the difference in the Approaches Grade Level performance of Grade 4 Black boys by their economic status?; (e) What is the difference in the Meets Grade Level performance of Grade 4 Black boys by their economic status?; (f) What is the difference in the Masters Grade Level performance of Grade 4 Black boys by their economic status?; (g) What is the degree to which trends are present by the economic status of Grade 4 Black boys on the STAAR Reading Reporting Categories across three school years?; and (h) What is the degree to which trends are present by the economic status of Grade 4 Black boys on the STAAR Reading grade level Standards across three school years. The first six research questions will be repeated for the 2016-2017, 2017-2018, and 2018-2019 school years, whereas the last two research questions will involve a comparison of results spanning across all three school years.

Method

Research Design

A non-experimental causal-comparative research design was used in this study (Creswell, 2014; Johnson & Christensen, 2017). The independent variable cannot be manipulated, because of this type of non-experimental, causal comparative research. Archival data that was examined from past assessment results. The individual variables already occurred, and dependent variables were not controlled in this study design (Johnson & Christensen, 2017). The independent variable in this research study was the economic status of Black boys (i.e., economically disadvantaged, not economically disadvantaged) and the dependent variables that were analyzed is the performance of Black boys in each reporting category and grade level standards.

Students who were in the economically disadvantaged group were Grade 4 Black boys who qualified for either the reduced price meals or for free meals under the National School Lunch and Child Nutrition Program. Children whose families have an income of 130% or less of the Federal poverty guideline can receive free meals at school. Poverty guidelines begin at an annual income below $12,060 and increases depending on the number of family members in a household. Eligibility for free meals is 130% of the $12,060 figure, which would be an annual income of $15,678. This dollar amount increases as the number of family members increase (United States Department of Agriculture Food and Nutrition Services, 2017).

Children whose families have an income from 131% to 185% of the Federal poverty guideline are eligible for reduced-priced meals at school. Eligibility for reduced priced meals is 185% of the $12,060 figure, which would be an annual income of $22,311. This dollar amount increases as the number of family members increase (United States Department of Agriculture Food and Nutrition Services, 2017). Students who were not economically disadvantaged were Grade 4 Black boys who did not qualify for either the reduced price meals or for the free meals under the National School Lunch and Child Nutrition Program (United States Department of Agriculture Food and Nutrition Services, 2017).

Participants and Instrumentation

The STAAR test is the state testing program that was implemented in the 2011-2012 school year. The Texas Education Agency, in collaboration with the Texas Higher Education Coordinating Board and Texas educators, developed the STAAR program in response to requirements set forth by the 80th and 81st Texas legislatures. The STAAR is an assessment program, which starts when students are in Grade 3, intended to measure the extent to which students have learned and are able to apply the knowledge and skills defined in the state mandated curriculum standards, the Texas Essential Knowledge and Skills. Every STAAR question is directly aligned to the Texas Essential Knowledge and Skills currently implemented for the grade/subject or course being assessed

The STAAR Reading assessment has three reporting categories. In the Reading Reporting Category 1, students' ability to understand and to analyze a variety of texts across reading genres is assessed. Measured in the STAAR Reading Reporting Category 2 are students' ability to understand and to analyze literary texts. Assessed in the STAAR Reading Reporting Category 3 are students' ability to understand and to analyze informational texts. (Texas Education Agency STAAR Accountability Manual, 2016).

Participants in this study were Grade 4 Black boys in Texas who took the STAAR Reading assessment in the 2016-2017, 2017-2018, and 2018-2019 school years. Data were requested from the Texas Education Agency Public Education Information Management System. Analyses were conducted based on student economic status (i.e., economically disadvantaged, not economically disadvantaged), across the three STAAR Reading Reporting Categories (i.e., Reporting Category 1, Reporting Category 2, and Reporting Category 3), and across three grade level standards (i.e., Approaches Grade Level, Meets Grade Level, Masters Grade Level).

In addition to the STAAR Reading Reporting Categories, three performance level standards were analyzed in this study. In 2017, the Texas Education Agency introduced three performance levels to determine how well students performed on the STAAR Reading Assessment (Texas Education Agency, 2017). The Approaches Grade Level standard is assigned to students who do not meet the grade level passing score. Students in this category are not able to demonstrate a basic level of understanding the course expectations. This designation predicts that students will be likely to succeed in the next grade level or course with targeted academic interventions to assist in the student's academic progress. In the Meets Grade Level standard, students will be expected to succeed in the next grade level with some form of short-term, targeted academic interventions. Students who perform in the Masters Grade Level standard are expected to succeed in the next grade level and, as such, should require little to no academic intervention and are on track for college and/or career readiness (Texas Education Agency, 2017). Readers are directed to the Texas Education Agency website for further information regarding score validities and score reliabilities for the STAAR Reading Assessment.

Results

Prior to addressing the first three research questions regarding Reading Reporting Categories, the underlying assumptions of the MANOVA were checked. Although not all of the assumptions were met, Field (2013) contends that the MANOVA procedure is still appropriate to use. As such, a separate MANOVA was conducted for each school year and will be reported in that order.

Overall Reading Reporting Category Results for Black Boys

Regarding the 2016-2017 school year, the MANOVA revealed a statistically significant difference, Wilks' Λ = .93, $p < .001$, partial $\eta^2 = .07$, moderate effect size (Cohen, 1988), in overall reading performance between Grade 4 Black boys who were and were not poor. Concerning the 2017-2018 school year, the MANOVA revealed a statistically significant difference, Wilks' Λ = .92, $p < .001$, partial $\eta^2 = .08$, moderate effect size (Cohen, 1988), in overall reading performance between Grade 4 Black boys who were and were not poor. With respect to 2018-2019, the MANOVA revealed a statistically significant difference, Wilks' Λ = .93, $p < .001$, partial $\eta^2 = .07$, moderate effect size (Cohen, 1988), in overall reading performance between Grade 4 Black boys who were poor and not poor. In all three school years, effect sizes were moderate.

Reading Reporting Category 1 Results Across All Three School Years

Following the overall results of the MANOVA, univariate follow-up Analysis of Variance (ANOVA) procedures were conducted for all three school years. A statistically significant difference was yielded between by the economic status of Black boys in their Reading Reporting Category I performance in the 2016-2017 school year, $F(1, 10193) = 556.22$, $p < .001$, partial $\eta^2 = .05$, small effect size; in the 2017-2018 school year, $F(1, 7501) = 443.21$, $p < .001$, partial $\eta^2 = .06$, moderate effect size; and in the 2018-2019 school year, $F(1, 7644) = 438.66$, $p < .001$, partial $\eta^2 = .05$, small effect size. Effect sizes were small in two of the school years and moderate in one school year (Cohen, 1988).

In regard to the Reading Reporting Category I scores, the reading performance of Black boys in poverty was 11.21% lower than the average reading performance of Black boys who were not poor in the 2016-2017 school year; 16.19% lower in the 2017-2018 school year; and 16.41% lower in the 2018-2019 school year. In the 2016-2017 school year, Black boys who were not poor responded correctly on 55.76% of questions whereas Black boys who were poor only responded correctly to 44.55% of questions. In the 2017-2018 school year, Black boys who were not poor responded correctly on 74.78% of the questions whereas Black boys who were poor only responded correctly to 58.59% of the questions. Finally, in the 2018-2019 school year, Black boys who were not poor responded correctly to 74.80% of the questions whereas Black boys who were poor answered 58.39% of the questions correctly. Black boys who were not economically disadvantaged consistently answered more test items correctly than Black boys in poverty on the Reading Reporting Category I in all three school years. Table 1 contains the descriptive statistics for all three school years.

Table 1. Descriptive statistics for the Grade 4 STAAR reading reporting Category I scores by economic status for Black boys

School Year and Economic Status	n	M%	SD%
2016-2017			
Not Poor	2,062	55.76	20.68
Poor	8,131	44.55	21.06
2017-2018			
Not Poor	1,314	74.78	22.77
Poor	6,187	58.59	25.83
2018-2019			
Not Poor	1,358	74.80	24.08
Poor	6,286	58.39	26.62

Reading Reporting Category II Results Across All Three School Years

A statistically significant difference was yielded by the economic status of Black boys in their Reading Reporting Category II performance in the 2016-2017 school year, $F(1, 10193) = 602.49$, $p < .001$, partial $\eta^2 = .06$, moderate effect size; in the 2017-2018 school year, $F(1, 7501) = 559.06$, $p < .001$, partial $\eta^2 = .07$, moderate effect size; and in the 2018-2019 school year, $F(1, 7644) = 445.30$, $p < .001$, partial $\eta^2 = .06$, moderate effect size. Effect sizes were moderate in all three school years (Cohen, 1988).

In regard to the Reading Reporting Category II scores, the reading performance of Black boys who were economically disadvantaged was 11.64% lower than the average reading performance of Black boys who were not poor in the 2016-2017 school year; 16.36% lower in the 2017-2018 school year; and 14.15% lower in the 2018-2019 school year. In the 2016-2017 school year, Black boys who were not poor responded correctly on 56.26% of questions whereas Black boys who were poor only responded correctly to 44.62% of questions. In the 2017-2018 school year, Black boys who were not poor responded correctly on 71.19% of the questions whereas Black boys who were poor only responded correctly to 54.83% of the questions. Finally, in the 2018-2019 school year, Black boys who were not poor responded correctly to 67.11% of the questions whereas Black boys who were poor answered 52.96% of the questions correctly. Black boys who were not economically disadvantaged consistently answered more test items correctly than Black boys in poverty on the Reading Reporting Category II in all three school years. Table 2 contains the descriptive statistics for all three school years.

Table 2. Descriptive statistics for the Grade 4 STAAR reading reporting Category II scores by economic status for Black boys

School Year and Economic Status	n	M%	SD%
2016-2017			
Not Poor	2,062	56.26	19.66
Poor	8,131	44.62	19.11
2017-2018			
Not Poor	1,114	71.19	21.15
Poor	6,187	54.83	23.12
2018-2019			
Not Poor	1,358	67.11	21.41
Poor	6,286	52.96	22.63

Reading Reporting Category III Results Across All Three School Years

A statistically significant difference was revealed by the economic status of Black boys in their Reading Reporting Category III performance in the 2016-2017 school year, $F(1, 10193) = 721.80$, $p < .001$, partial $\eta^2 = .07$, moderate effect size; in the 2017-2018 school year, $F(1, 7501) = 573.53$, $p < .001$, partial $\eta^2 = .07$, moderate effect size; and in the 2018-2019 school year, $F(1, 7644) = 494.48$, $p < .001$, partial $\eta^2 = .06$, moderate effect size. In all three school years, effect sizes were moderate (Cohen, 1988).

In regard to the Reading Reporting Category III scores, the reading performance of Black boys who were economically disadvantaged was 13.27% lower than the average reading performance of Black boys who were not poor in the 2016-2017 school year; 17.57% lower in the 2017-2018 school year; and 15.52% lower in the 2018-2019 school year. In the 2016-2017 school year, Black boys who were not poor responded correctly on 48.59% of questions whereas Black boys who were poor only responded correctly to 35.32% of questions. In the 2017-2018 school year, Black boys who were not poor responded correctly on 69.19% of the questions whereas Black boys who were poor only responded correctly to 51.62% of the questions. Finally, in the 2018-2019 school year, Black boys who were not poor responded correctly to 67.09% of the questions whereas Black boys who were poor answered 51.57% of the questions correctly. Black boys who were not economically disadvantaged consistently answered more test items correctly than Black boys in poverty on the Reading Reporting Category III in all three school years. Delineated in Table 3 are the descriptive statistics for all three school years.

Table 3. Descriptive statistics for the Grade 4 STAAR reading reporting Category III Scores by economic status for Black boys

School Year and Economic Status	*n*	*M%*	*SD%*
2016-2017			
Not Poor	2,062	48.59	21.69
Poor	8,131	35.32	19.58
2017-2018			
Not Poor	1,314	69.19	23.59
Poor	6,187	51.62	24.28
2018-2019			
Not Poor	1,358	67.09	22.85
Poor	6,286	51.57	23.42

Results for the Approaches Grade Level Standard Over Three School Years

Student performance on the three STAAR Reading grade level standards was examined through the use of Pearson chi-square procedures. This statistical procedure was the most appropriate statistical procedure to use because dichotomous data were present for all three grade level standards (i.e., Met, Not Met) and for economic status (i.e., economically disadvantaged, not economically disadvantaged). Accordingly, chi-square procedures are appropriate when all variables are categorical (Field, 2013). Because a statewide sample size was present, the assumptions chi-square procedures were met.

Concerning the Approaches Grade Level standard by student economic status, the result for the 2016-2017 school year was statistically significant, $\chi^2(1) = 590.33$, $p < .001$, Cramer's V of .24, small effect size (Cohen, 1988). A statistically significantly higher percentages of Black boys who were not poor, 29.9% more, met the Approaches Grade Level standard than Black boys who were poor. Near three fourths of Black boys who were not poor met the standard whereas only 41.2% of Black boys who were in poverty met this standard. Table 4 contains the descriptive statistics for this analysis.

Table 4. Frequencies and percentages of Grade 4 STAAR reading performance at the approaches grade level standard by economic status for Black boys

School Year and Economic Status	Did Not Meet *n* and %age of Total	Met *n* and %age of Total
2016-2017		
Not Poor	(*n* = 596) 28.9%	(*n* = 1,466) 71.1%
Poor	(*n* = 4,782) 58.8%	(*n* = 3,349) 41,2%
2017-2018		
Not Poor	(*n* = 228) 17.4%	(*n* = 1,066) 82.6%
Poor	(*n* = 3,099) 50.1%	(*n* = 3,088) 49.9%
2018-2019		
Not Poor	(*n* = 240) 17.7%	(*n* = 1,118) 82.3%
Poor	(*n* = 2,997) 47.7%	(*n* = 3,289) 52.3%

With respect to the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 470.63$, $p < .001$, Cramer's V of .25, small effect size (Cohen, 1988). A statistically significantly higher percentages of Black boys who were not poor, 32.7% more, met the Approaches Grade Level standard than Black boys who were in poverty. More than 80% of Black boys who were not poor met the standard compared to less than 50% of Black boys who were poor. Table 4 contains the descriptive statistics for this school year.

Regarding the 2018-2019 school year, the result was statistically significant, $\chi^2(1) = 411.79$, $p < .001$, Cramer's V of .23, small effect size (Cohen, 1988). A statistically significantly higher percentages of Black boys who were not poor, 30% more, met the Approaches Grade Level standard than Black boys who were in poverty. As delineated in Table 4, more than 80% of Black boys who were not poor met the standard compared to only about 50% of Black boys who were economically disadvantaged.

Results for the Meets Grade Level Standard Over Three School Years

Concerning the Meets Grade Level standard by student economic status, a statistically significant difference was revealed for the 2016-2017 school year, $\chi^2(1) = 660.64$, $p < .001$, Cramer's V of .26, small effect size (Cohen, 1988). A statistically significantly higher percentage of Black boys who were not poor, 26.9% more, met the Meets Grade Level standard than Black boys who were in poverty. Almost 45% of Black boys who were not poor met the standard compared to only 17.9% of Black boys who were economically disadvantaged who met this grade level standard. Revealed in Table 5 are the descriptive statistics for this analysis.

Table 5. Frequencies and percentages of Grade 4 STAAR reading performance at the meets grade level standard by economic status for Black boys

School Year and Economic Status	Did Not Meet n and %age of Total	Met n and %age of Total
2016-2017		
Not Poor	(n = 1,139) 55.2%	(n = 923) 44.8%
Poor	(n = 6,672) 82.1%	(n = 1,459) 17.9%
2017-2018		
Not Poor	(n = 577) 43.9%	(n = 737) 56.1%
Poor	(n = 4,784) 77.3%	(n = 1,403) 22.7%
2018-2019		
Not Poor	(n = 688) 50.7%	(n = 670) 49.3%
Poor	(n = 4,963) 79.0%	(n = 1,323) 21.0%

With respect to the 2017-2018 school year, the result was statistically significant, $\chi^2(1) = 593.38$, $p < .001$, Cramer's V of .28, small effect size (Cohen, 1988). A statistically significantly higher percentages of Black boys who were not poor, 33.4% more, met the Meets Grade Level standard than Black boys who were in poverty. More than 55% of Black boys who were not poor met the Meets Grade Level standard whereas only 22.7% of Black boys who were economically disadvantaged met this standard. Table 5 contains the descriptive statistics for this school year.

Regarding the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 463.71$, $p < .001$, Cramer's V of .25, small effect size (Cohen, 1988). A statistically significantly higher percentages of Black boys who were not poor, 28.3% more, met the Meets Grade Level standard than Black boys who were in poverty. As delineated in Table 5, almost half of Black boys who were not poor met the Meets Grade Level standard compared to about 20% of Black boys who were economically disadvantaged who met this grade level standard.

Results for the Masters Grade Level Standard Across Three School Years

Concerning the Masters Grade Level standard for the 2016-2017 school year, a statistically significant difference was yielded, $\chi^2(1) = 510.21$, $p < .001$, Cramer's V of .22, small effect size (Cohen, 1988). A statistically significantly higher percentage of Black boys who were not poor, 16.9% more, met the Masters

Grade Level standard than Black boys who were in poverty. Almost a fourth of Black boys who were not poor met the Masters Grade Level standard whereas less than a tenth of Black boys who were economically disadvantaged met this grade level standard. Revealed in Table 6 are the descriptive statistics for this school year.

Table 6. Frequencies and percentages of Grade 4 STAAR reading performance at the masters grade level standard by economic status for Black boys

School Year and Economic Status	Did Not Meet n and %age of Total	Met n and %age of Total
2016-2017		
Not Poor	(n = 1,574) 76.3%	(n = 488) 23.7%
Poor	(n = 7,578) 93.2%	(n = 553) 6.8%
2017-2018		
Not Poor	(n = 951) 72.4%	(n = 363) 27.6%
Poor	(n = 5,590) 90.4%	(n = 597) 9.6%
2018-2019		
Not Poor	(n = 1,029) 75.8%	(n = 329) 24.2%
Poor	(n = 5,786) 92.0%	(n = 500) 8%

With respect to the 2017-2018 school year, the result was statistically significant, $\chi^2(1) = 313.82$, $p < .001$, Cramer's V of .21, small effect size (Cohen, 1988). A statistically significantly higher percentage of Black boys who were not poor, 18% more, met the Masters Grade Level standard than Black boys who were in poverty. In this school year, more than a fourth of Black boys who were not poor met the Masters Grade Level standard whereas less than a tenth of Black boys who were economically disadvantaged met his grade level standard. Table 6 contains the descriptive statistics for this analysis.

Regarding the 2018-2019 school year, a statistically significant difference was yielded, $\chi2(1) = 305.84$, $p < .001$, Cramer's V of .20, small effect size (Cohen, 1988). A statistically significantly higher percentage of Black boys who were not poor, 16.2% more, met the Masters Grade Level standard than Black boys who were in poverty. As presented in Table 6, almost a fourth of Black boys who were not poor met the Masters Grade Level standard whereas less than a tenth of Black boys who were economically disadvantaged met this grade level standard.

Trends in Reading Performance by Economic Status

In analyzing the reading achievement of Grade 4 Black boys in Texas across the three years of data that were examined, trends in scores were present by economic status. In each STAAR Reading Reporting Category and in all three years investigated, Black boys who were not poor outperformed Black boys who were poor. In regard to the Reading Reporting Category I scores, the reading performance of Black boys who were poor was 11.21% lower than the average reading performance of Black boys who were not poor in the 2016-2017 school year; 16.19% lower in the 2017-2018 school year; and 16.41% lower in the 2018-2019 school year. Black boys who were not poor consistently outperformed Black boys in poverty on the Reading Reporting Category I in all three school years of data analyzed.

Concerning the Reading Reporting Category II scores, the reading performance of Black boys who were poor was 11.64% lower than the average reading performance of Black boys who were not poor in the 2016-2017 school year; 16.36% lower in the 2017-2018 school year; and 14.15% lower in the 2018-2019 school year. Black boys who were not poor consistently outperformed Black boys in poverty on the Reading Reporting Category II in all three school years.

Regarding Reading Reporting Category III scores, the reading performance of Black boys who were poor was 13.27% lower than the average reading performance of Black boys who were not poor in the 2016-2017 school year; 17.57% lower in the 2017-2018 school year; and 15.52% lower in the 2018-2019 school year. Black boys who were not poor consistently outperformed Black boys in poverty on the Reading Reporting Category III in all three school years.

With respect to the three grade level standards, statistically significantly higher percentages of Black boys

who were not poor met these grade level standards than Black boys who were economically disadvantaged. Across all three school years, statistically significantly higher percentages of Black boys who were not poor met the Approaches Grade Level standard, 29.9% more in the 2016-2017 school year; 32.7% more in the 2017-2018 school year; and 30% more in the 2018-2019 school year than Black boys in poverty. Statistically significantly higher percentages of Black boys who were not poor met the Meets Grade Level standard, 26.9% more in the 2016-2017 school year; 33.4% more in the 2017-2018 school year; and 28.3% more in 2018-2019 school year, than Black boys who were in poverty. Statistically significantly higher percentages of Black boys who were not poor met the Masters Grade Level standard, 16.9% more in the 2016-2017 school year; 18% more in the 2017-2018 school year, and 16.2% more in the 2018-2019 school year than Black boys who were in poverty. These average percentages for both groups of Black boys are depicted in Figures 1 through 6.
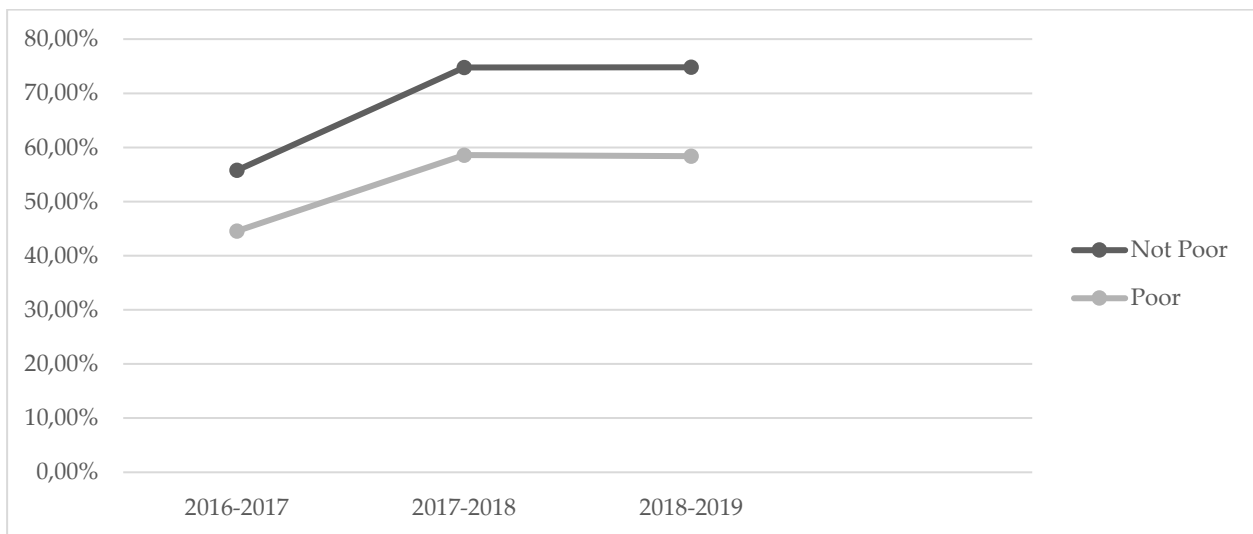

Figure 1. Average performance on the Grade 4 STAAR Reading Reporting Category I by the economic status of Black boys
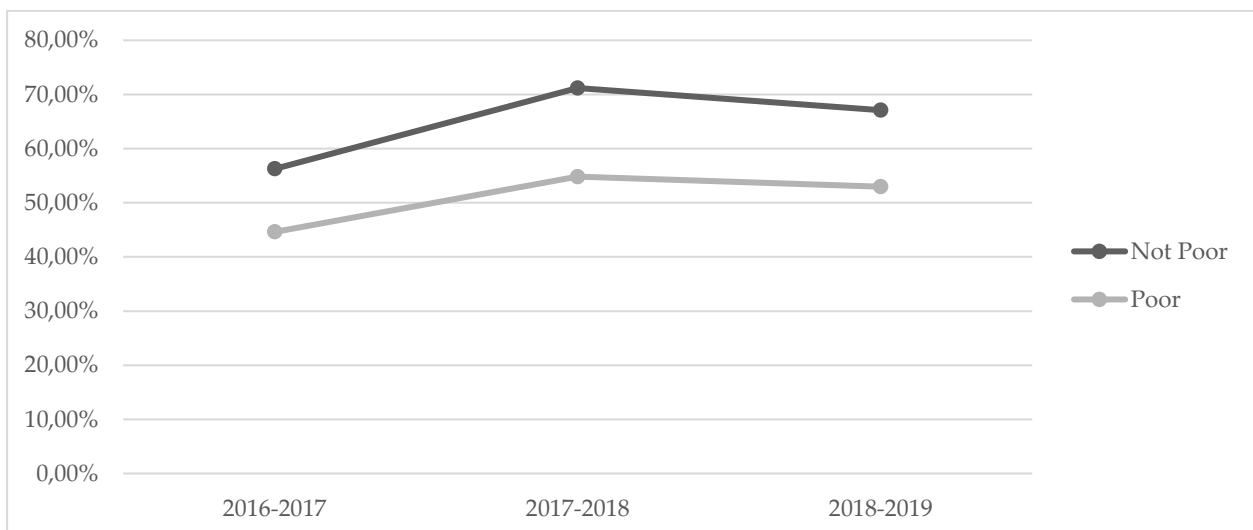

Figure 2. Average performance on the Grade 4 STAAR Reading Reporting Category II by the economic status of Black boys
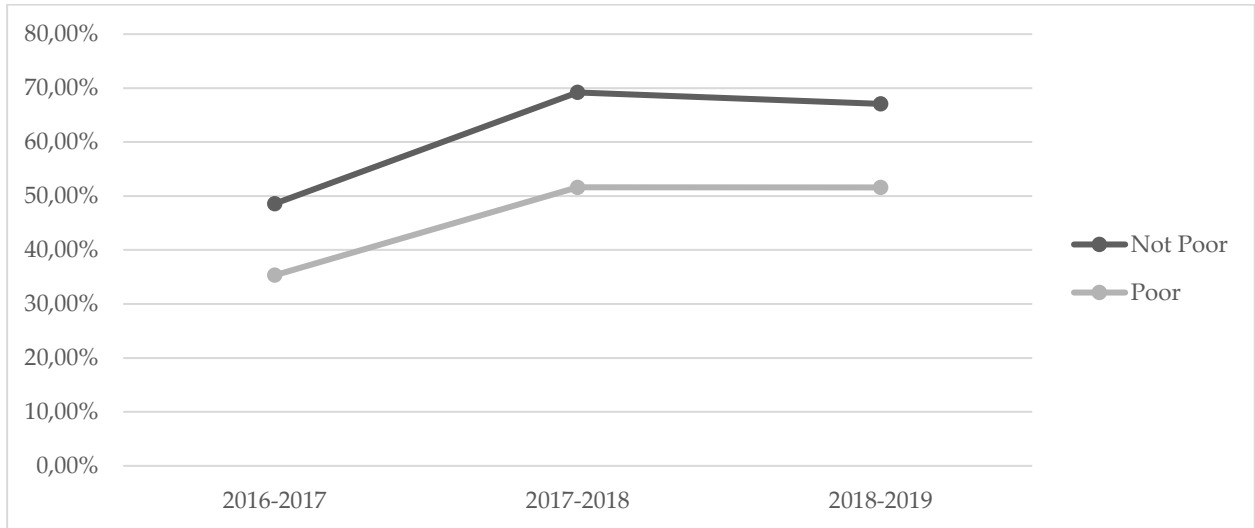
Figure 3. Average performance on the Grade 4 STAAR Reading Reporting Category III by the economic status of Black boys
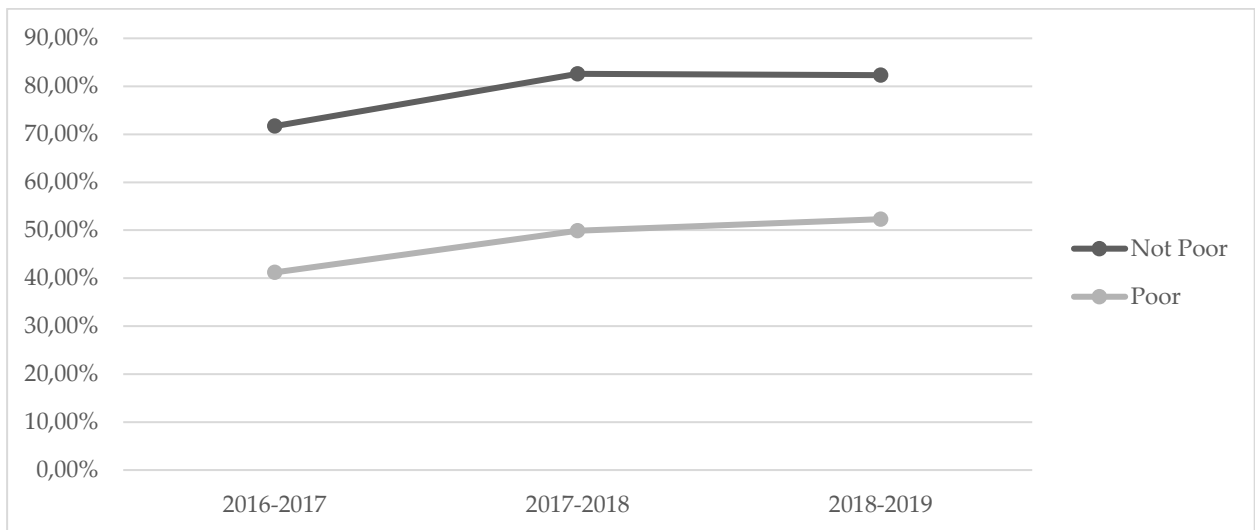

Figure 4. Percentage of Black boys who met the Grade 4 STAAR Reading Approaches Grade Level standard
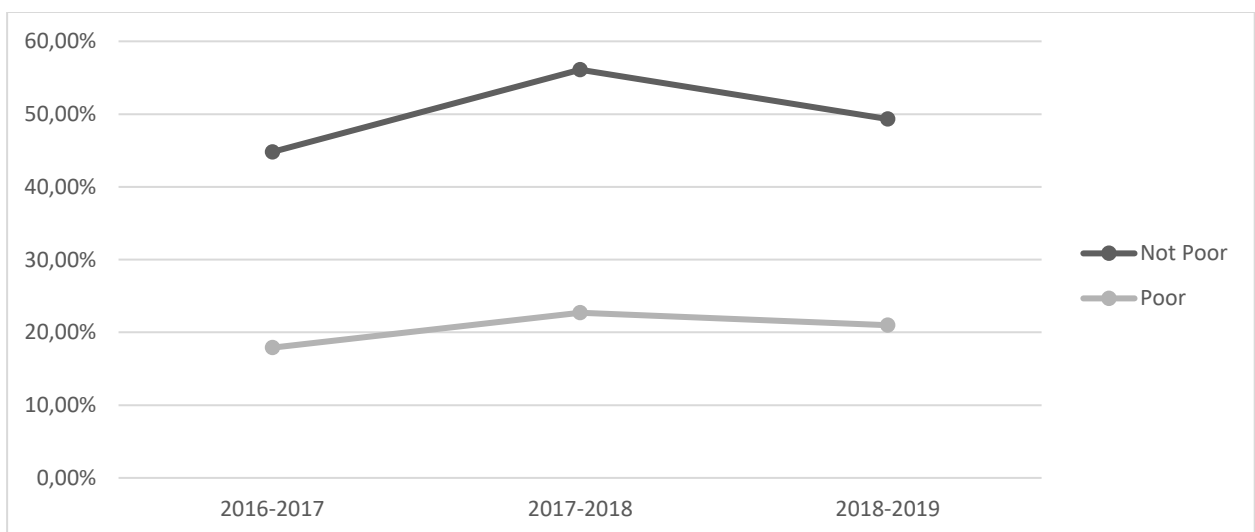

Figure 5. Percentage of Black boys who met the Grade 4 STAAR Reading Meets Grade Level standard
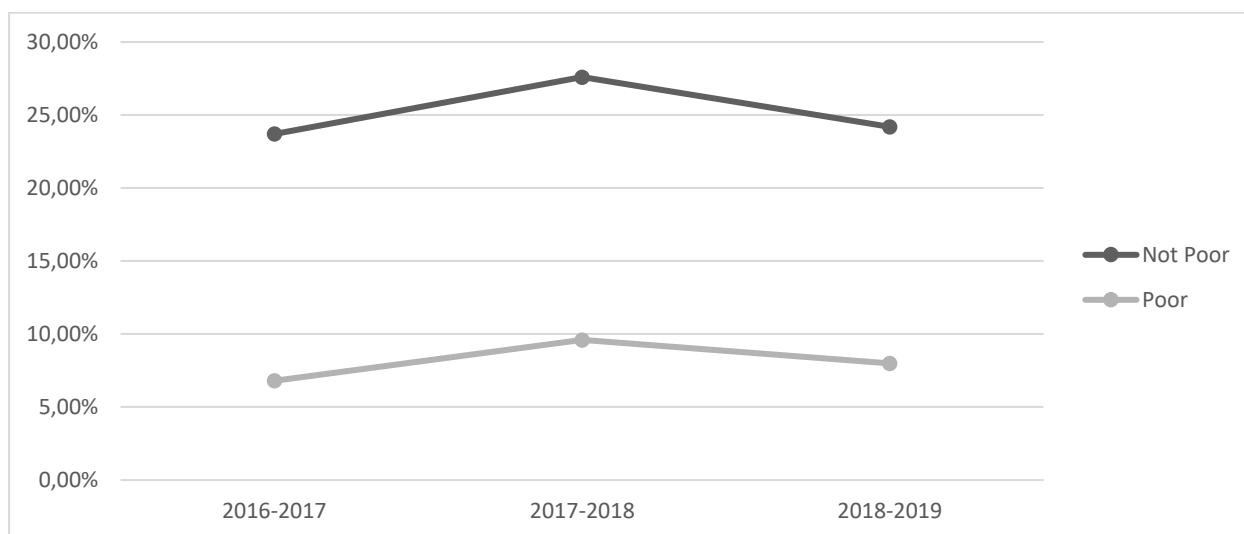
Figure 6. Percentage of Black boys who met the Grade 4 STAAR Reading Masters Grade Level standard

Discussion

Analyzed in this investigation was the extent to which differences were present in the reading performance of Texas Grade 4 Black boys by their economic status. Three years of statewide data on the three Grade 4 STAAR Reading Reporting Categories and on three grade level standards were compared for Black boys who were in poverty and who were not in poverty. Statistically significant results were present in all reporting categories and all grade level standards.

In each of the three STAAR Reading Reporting Category results in all three years were analyzed. Black boys who were poor had statistically lower scores that Black boys who were not poor. In each reporting category, the gap between the two student groups was at least 11% with Black boys who were poor scoring lower. The largest gaps were in the 2017-18 and 2018-19 school years, ranging from 14% to over 17.5% differences in performance.

Similarly, in each of the three grade level standards in all three years investigated, statistically significantly lower percentages Black boys who were poor met these three grade level standards Black boys who were not in poverty. Differences in the percentage of students meeting the Approaches Grade Level standard ranged from 29.9% to 32.7% across the three years; 26.9 to 33.4% at the Meets Grade Level standard; and 16.2% to 18% at the Masters Grade Level standard with a larger number of Black boys who were not poor meeting the standards. The largest differences in each performance level existed in the 2017-18 school year with a 32.7% difference at the Approaches Grade Level standard; 33.4% at the Meets Grade Level Standard; and 18% at the Masters Grade Level standard.

Connections to Existing Literature

According to Jones et al. (2017), poverty is the strongest predictor of learning challenges and poor academic outcomes for children. For the past several decades, increased focus has been placed on the relationships of poverty and reading (e.g., Conradi et al., 2016; Reardon, 2013). As student poverty increases, reading performance becomes increasingly poorer. In terms of Black boys and socio-economic status, research indicates a stairstep effect was present, and as the percentage of Black boys who were Extremely Poor increased, the percentage of Black boys who met the reading standard decreased. These results of this research were congruent with that of other researchers who have addressed the relationships between poverty and reading (Harris & Slate, 2017; McGown, 2016; Paschel et al., 2018).

Implications for Policy and Practice

Regarding policy implications, one of the most important ways for schools and districts to address the differences that are currently reflected in STAAR Reading testing related to Black boys and economic status is to be more deliberate in monitoring gender as a subgroup. Currently, data are analyzed, and districts are held accountable for the success of students who are poor, but no subgroup data are examined within that group. In other words, when the state begins to change policies that require the measurement, or monitoring, of gender and economic status as a subgroup, they will have taken the first step to addressing the problem by no longer missing the problem. In short, they will begin to identify the performance differences and begin to investigate reading performance as a function of economic status. A better analysis of subgroups would allow all stakeholders, including school leaders, teachers, content specialists, curriculum writers and district-level administrators to better meet the specific needs of subgroups when planning for campus improvement.

Concerning practice implications, one of the most important first steps to addressing the gap in reading achievement with Black boys who are poor, is to no longer accept some long-practiced, yet ineffective solutions. Because of the volume of issues and challenges facing educators, it is, unfortunately, common to attempt a "one size fits all solution" to problems that require a more tailored approach. With a strong understanding of the problems, often identified with accurate and specific data, practices can be refined to specifically address the fact that Black boys and students who were poor are not achieving at the same rate as Asian and White students in relation to reading. With a clear picture of the reality, all stakeholders can combine their efforts to focus on solutions specific to this subgroup by differentiating support based on sex and economic status. Once the solutions are identified, they must be put into campus improvement plans, the blueprints for change. Literacy can be a stumbling block for many students and the realities of those struggles have lifelong impact in college readiness, career readiness, future earnings, and the ability to build generational wealth thus impacting the entire Black community. Therefore, high school principals, district level administrators, and teachers must strengthen their curriculum in the younger grades and target students struggling.

Recommendations for Future Research

Several recommendations for future research can be offered based on the results of this statewide, multiyear investigation. First, researchers should determine if similar gaps exist in other grade levels such as Grade 8 Reading and English I and II End of Course exams. Second, analyzing data from other content areas such as Mathematics would help to determine if these trends are only identified in Reading. Thirdly, research focused on identifying differences within other ethnic groups such as Hispanic, White, and Asian groups. Fourth, researchers should examine how economic status may affect the reading achievement of Black girls differently and determine any economic and socio-economic differences that may be a function of the differences. Fifth, researchers should conduct this study in other states using other assessments to determine if similar trends exist, findings presented herein would be generalizable to other states. Last, researchers should include qualitative and mixed studies to obtain a better understanding regarding the relationship to academic achievement within a racial group based on gender and economic status. Family structure, parents educational background, and experiences with trauma would all be good topics for investigation within ethnic groups.

Conclusion

Clearly established in this multiyear, statewide investigation were statistically significant differences in reading by the economic status of Black boys. For all three reporting categories and for all three grade level standards, Black boys in poverty had lower reading test scores than Black boys who were not economically disadvantaged. Moreover, lower percentages of Black boys in poverty met the three reading grade level standards than Black boys who were not economically disadvantaged. Congruent with the results of other researchers (e.g., Harris, 2018; Lee & Slate, 2014; McGown, 2016; Sharkins et al., 2017), poverty clearly affects student achievement.

Declarations

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Roles-Based Engagement in Collaborative Online Discussions to Promote EFL Speaking

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Abstract

This qualitative case study examines students' perceptions of role-based engagement in collaborative online discussions to promote English as a foreign language (EFL) speaking. For this reason, semi-structured interviews were conducted with 28 students and one educator. The results showed that teachers applied three basic educators' collaborative competencies (ECC) during online discussions. Thus, group activities are evident through the following: speaking skills (peer grammar repetition and peer pronunciation correction), cognitive boosting (criticizing and confirming specific opinions), social interaction (praising group accomplishments and help-seeking problem-solving), and collaborative skills. The study suggests more research into role-based discussions that occur on the spot or without teachers planning ahead, open-ended speaking diagnostic tasks, designs for online assessment and evaluation of speaking rubrics, fluency-oriented speaking tasks, and technology-assisted peer-learning assessments.

Introduction

The use of collaborative learning strategies in the teaching and learning of English as a foreign language (EFL) has been extensively studied. For instance, Babiker (2018) proposed that an integral component of the educator preparation program should involve both instruction and hands-on practice for students. González-Lloret (2020) concluded that effective course design and teamwork are crucial elements in education. Similarly, Koç (2018) delved into the positive impact of encouraging group activities on students' collaborative skills. Parallel to this, Fatimah (2019) used the mantle of experts to include students in group projects to help them feel less anxious as they practiced speaking EFL in class. Moreover, Chen et al. (2021) and Le et al. (2018) contended that by facilitating their virtual reality context, they can improve their active behavior and enhance their interactions and self-efficacy to boost the growth of their speaking.

According to empirical data, educators employ technical strategies to improve student speaking and the implementation of collaborative learning, starting with traditional (face-to-face) in-class collaboration (Wang & Chen, 2012) and progressing all the way up to blended learning collaboration (synchronous and asynchronous). For instance, Al-Samarraie & Saeed (2018); Butarbutar et al. (2023b); Çakiroğlu & Erdemir (2019); Magen-Nagar & Shonfeld (2018); Molinillo et al. (2018); Sun &Yuan (2018). Supporting small-group online collaboration through educator feedback on academic assignments, social interaction, and learning content (Daradoumis et al., 2006; Macdonald, 2003; Redmond & Lock, 2006) They emphasized that online collaborative learning can be used as a substitute for evaluation to help students improve their language, social, and academic performance (Hossain et al., 2022).

Additionally, even though it is crucial to promote students' active participation in their learning, the educator's feedback also plays a role (Willis & Willis, 2007), and assistance is required. The goal of this study is to fill this gap. Educators frequently select subjects for group discussions to facilitate conversation

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among students and promote their consciousness or understanding of the need to collaborate (Wu & Wang, 2023). However, occasionally, educators gave them free rein to select their own topics. Therefore, free themes may appeal to their past knowledge. This is in line with Vygotsky (1978)'s ground-breaking constructivist learning theory. He claimed that pupils will be more receptive and interested when they have prior background, experience, and information relevant to the topic of conversation (Chen & Hwang, 2022; Manabe et al., 2021).

Group members must work together on an online discussion forum. When all participants are involved, a debate flows smoothly and is more productive flows smoothly and is more productive (Sadeghi & Kardan, 2016). In some cases, roles help raise group members' awareness (Martin & Rose, 2003) when this does not happen naturally or automatically. Benne & Sheats (2020, 1948) effectively defined the term "growth and production of a group" to characterize the necessary member role in light of this concept. They emphasized that to create and maintain effective focus group activities, members' roles are a requirement. Consequently, they divided the roles of functional group members into three categories: group tasks (Vandommele et al., 2018), group creation and maintenance, and individual function roles. This is congruent with Willis & Willis's (2007) viewpoint that task-based learning is a teaching and learning methodology. As a result, they give students the roles they are assigned, as well as tasks. Simultaneously, Butarbutar (2021) investigated how, although task-based, this approach to teaching EFL speaking has its own difficulties.

To gain a better understanding, the current study modifies the group task role developed by Benne & Sheats (1948). Each group member plays a part in starting, organizing, and facilitating information to address the issue at hand. In this regard, there are two types of roles for group tasks: (1) starters or contributors who pioneer group activities and team problem-solving. (2) Information seeker: Looking for information on the subjects being discussed and clarifying it. (3) Opinion seeker/giver: Recommendations based on what the group is worth. (4) Evaluation/feedback provider: Assesses the group's work and offers helpful criticism. (5) Decision maker or conclusion: As an individual representation, comes to a better overall conclusion. (6) Uploader into YouTube, WAG, and Zoom: Upload the work of the group into a digital space to be shared in the classroom; and (7) Speaker or Narrator: The participant whose responsibility is to speak up or provide narration when the group business is debated and resolved cooperatively (figure 2).

Role-based collaboration during online discussion to encourage speaking EFL is not well recognized, save for some previously stated technical solutions for collaborative learning implementation. Additionally, computer-supported collaborative learning (CSCL) has been widely used to advance other language skills but less so for speaking abilities. Therefore, the goal of this study was to fill this knowledge gap. Therefore, to facilitate our understanding, the following research questions were addressed in this study:

1. How can educators use collaborative role-based competencies to promote EFL speaking?

2. How effectively can online collaborative role-based learning foster EFL speaking skills?

3. What exactly do participants in role-based online discussions do in groups?

4. How does role-based online discussion appear to students?

Method

Research Design

The study was conducted using a qualitative case study that was exploratory and pertinent to the objectives of the study. As a result, Yin (2009) defined a case study as a research study whose goal is to determine the research questions or methods to be applied in a subsequent research study, which may or may not be a case study. The boundaries for each instance must be determined early in the research process, such as in classroom behavior. Additionally, he adds that case studies offer a special illustration of actual people in

actual circumstances, making it possible to comprehend how and why this happened and resulting in a rich and vivid description of events.

As described above, the current study was the initial phase of an investigation to gain a fresh understanding of the phenomena through a thorough exploratory process. We referred to this as a case study because the features of the participants might be particular to the academic environment and cannot be extrapolated to other contexts.

Data Collection

The study was set up and carried out through a WhatsApp group (WAG), which is pertinent to the research title and research questions designed in the previous section. Educator and students made the most of the WAG's program by utilizing chat rooms and video conferencing. Regarding moral concerns, the study participants were chosen voluntarily and without compensation. According to the Institutional Review Board (IRB) of Universitas Musamus Merauke, a letter of authorization must be given to the faculty staff before any ethical research concerns may be addressed. After receiving written approval from the dean of the Faculty of Educator Preparation and Education, exploration took place. A purposively sampled technique was used to collect the research sample. They selected WAG for this instance because they used it as a location for speaking training. Additionally, educators frequently use WAG to share instructional tasks.

The study used a semi-structured interview guide, observation, an online focus group discussion (FGD), field notes, and documents as instruments to assist the researcher in data collection. Hence, the researcher used the educator's daily and monthly reports and the student's progress control card as instruments for completing document instrumentation. In addition, the study used relevant literature as additional references to obtain an in-depth understanding of role-based interactions during online discussions.

Participants

According to the research questions, syntactical learning is specifically demonstrated as follows: the educator divided students into four groups depending on their roles in the first meeting. These groups included information seekers and givers, opinion seekers and givers, evaluators, and feedback providers, decision-makers or conclusion uploaders on YouTube, WAG, and Zoom, as well as speakers and narrators. The 28 participants (20 females and eight males) and one female educator were included in the study. The students' ages ranged from 20 to 25. Meanwhile, the educator was above 40 years of age. She is a senior certified EFL teacher and has more than ten years of experience as a teacher.

Data Analysis

All data collected using the tools provided are analyzed thematically (theme-subthemes) (Braun et al., 2023) and interactively using interactive models (Miles et al., 2018) for the best possible data analysis. To confirm and validate the outcomes, the participants received data that concluded.
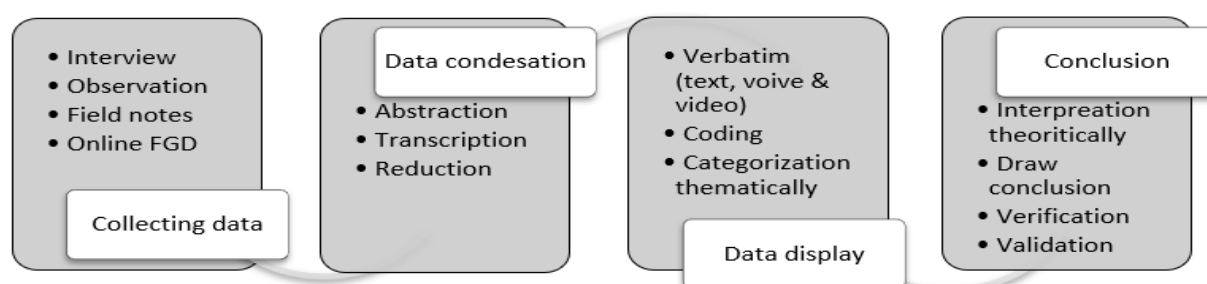

Figure 1. Interactive data analysis technique.

Similarly, researchers used people to confirm the accuracy of their findings. Consequently, researchers have not received much helpful feedback from educators. One piece of advice is that role-based online discussions (Wallwork, 1997) work best when they are centered on real-world issues that are relevant to students' past knowledge.

Limitations

Our study acknowledges several limitations that may affect its generalizability to a broader population. Firstly, the small sample size may limit the representativeness of the findings to a larger population, potentially leading to bias. Secondly, the sample characteristics in our study may not be representative of a larger population, which can impact the external validity of the study. Thirdly, the lack of an experiment and a control group may hinder the ability to establish causal relationships. Furthermore, findings from a specific case study may not be easily replicated or generalized to other settings or groups.

Results

In light of the first research question, "What are educator' competencies in implementing collaborative roles-based strategies to promote EFL speaking?" The study found that educators applied three base educators' collaboration competencies (ECC) during online discussions. These competencies include designers, facilitators, monitors, and evaluators. These competencies and expected student outcomes during online discussion implementation are shown in Table 1.

Table 1. Educator' collaborative competencies

Base-ECC	Core-competencies	Sub-core competencies	Student outcomes
Designer	Designing learning objectives	Organizing students' learning styles with course materials	Students understood learning objectives
	Collaboration instructional	Defining collaborative learning	Student's collaborative awareness
	Roles-based group division	Each student is divided pertinent with each roles	Student recognizes her/his role
	Chosen topics for weekly group performances	Real-world problem, students prior both bad and good experiences, procedural text-based dialogue, up to date trending news,	Speak up more accurately, confidently, reduce anxiety due to have any prior experience to be shared in group
Facilitator	Explaining learning objectives	Giving clear instruction for online discussion	Learning objectives student's understanding
	Supporting	Providing challenging questions	Student's readiness and engagement
		Maximizing virtual venue for discussion forum such as WAG, chat room feature, Zoom Meet Application, free YouTube channel & Google Classroom	Students' engagement in online discussion venue
		Encourage student to be engaged in all chosen topics discussion	
		Recorded video performances	Students' speaking improvement
Monitor& Evaluator (MONEV)	Self-monitor	Direct observation	Students knowing speaking performances category
		Observation check lists	
		Students diary	
	Peer evaluation	Guided-book peer evaluation	
		Oral peer evaluation	
	Formative and	The evaluation was conducted in the	Students knowing their

summative evaluation	middle and end of the semester.	speaking performances category (Fluent, Average, and Poor)
Reflecting	Comparing intended learning goal and student's behavior	Students knowing their speaking performances category (Fluent, Average, and Poor)
	Reflective daily reports	
Feedback provider	Informing alternative strategy for speaking fluency e.g. web-based speaking tools	
Oral feedback	Praising, encouraging agreeing or disagreeing,	
Written or digital feedback	"Thanks for submitting your assignment"	

Table 1 implies that educator competencies play a significant role in collaboration success through interactive student engagement. The study noted that speaking performance increased significantly due to the educator intervention to guide and control each student. Otherwise, students with an active attitude are more active, while students with a passive attitude are more passive. In this vein, educator competencies are an essential fuel for collaboration.

Apparently, in response to the second question, the current study was role-based to make student participation more interactive in an online discussion. The frame is shown in Figure 2.
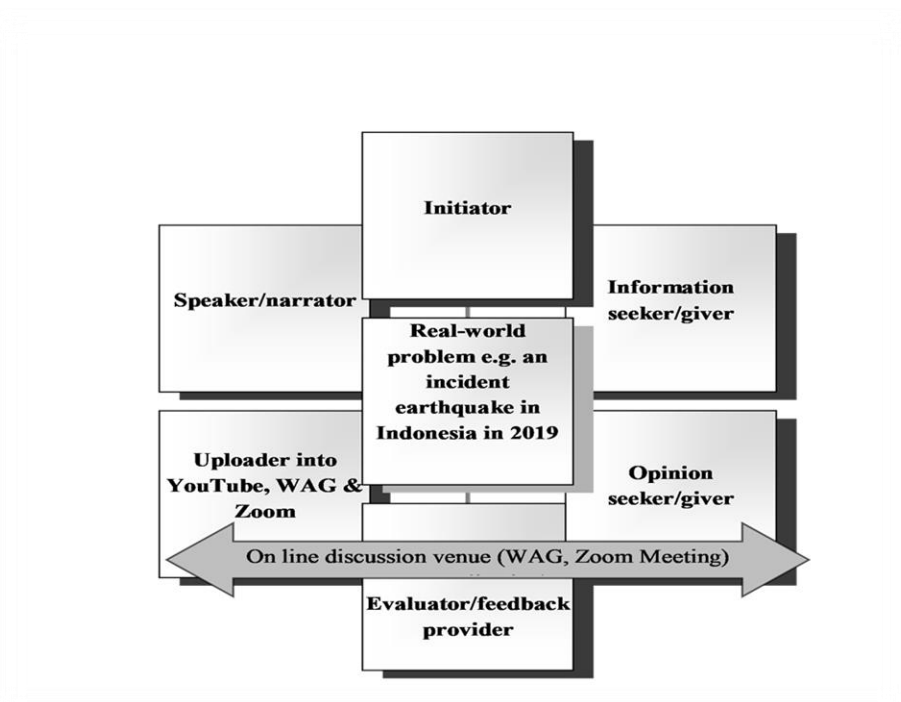

Figure 2. Roles-based online discussion

Relevant to the third research question, 'What exactly do participants in role-based online discussions do in groups?' The study's empirical evidence is clear: some activities have already been carried out, including chat rooms, discussion forums, and search, speak, and share (3S). In summary, the group activities in which students participated may be broken down into four categories, as shown in Figure 2: cognitive enhancement, social interaction, speaking abilities, and collaboration skills.

The following categorization was made: (i) speaking skills involve peer grammar repetition and peer pronunciation correction; (ii) cognitive boosting involves criticizing and confirming specific opinions; (iii)

social interaction entails praising group accomplishments and help-seeking problem solving; speaking skills involve peer grammar repetition and peer pronunciation correction; and (iv) collaborative skills involve remembering other group members' roles and responsibilities.
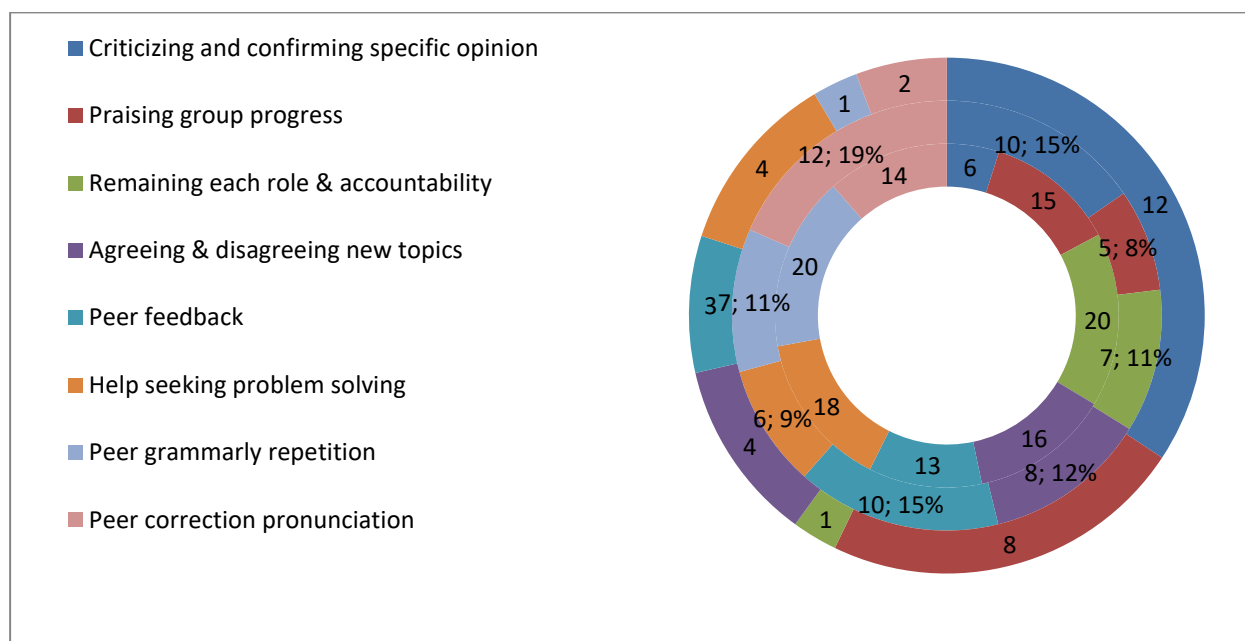

Figure 3. Evidence group activities

This issue relates to the fourth research question: How do students respond to role-based online discussions? This opportunity allowed us to categorize people's perceptions based on (a) language use and performance: [I was at ease in my job, I was encouraged to expand my vocabulary, I was encouraged to speak more fluently but with less precision, and my role had an impact on my performance.] (b) Affective and motivating elements were present [I was content to be a part of this particular group division; I felt secure since I had studied; and I found the session to be boring]. (c) Peer tutoring accommodation: [The roles of my peers allowed me to participate; I relished the challenge of my role]. Figure 4 depicts most of their perceptions and experiences.
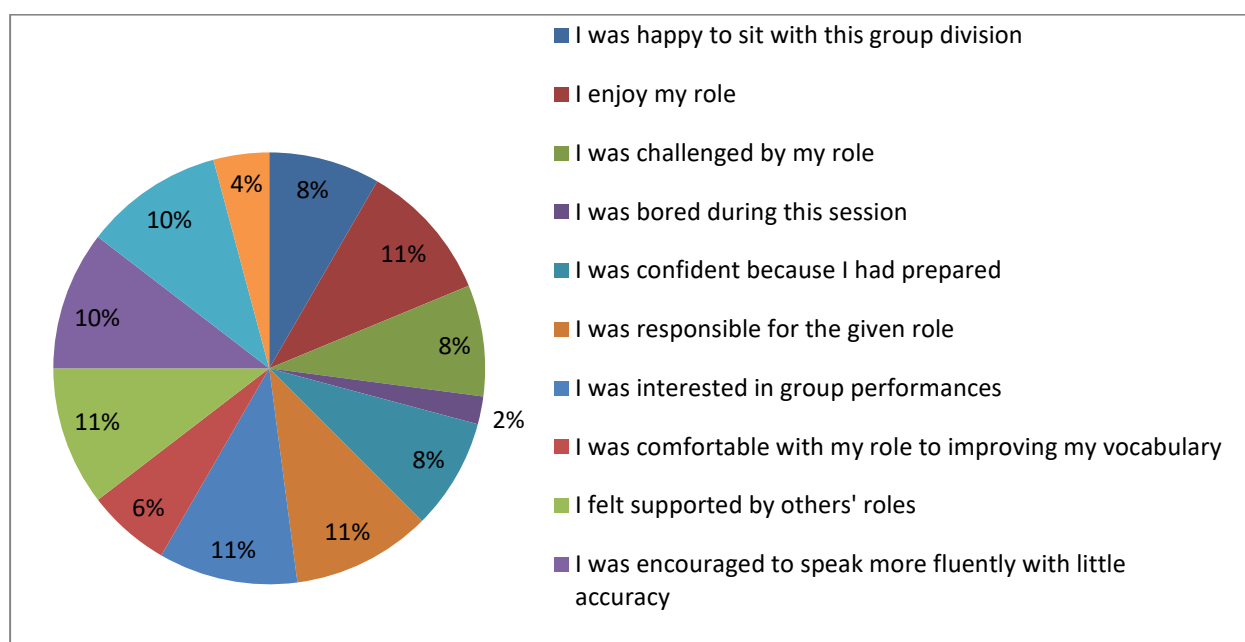

Figure 4. Students' response of roles-based collaboration

Discussion

According to the results of the FGD and interviews, the educator used three fundamental ECCs when participating in online discussions. However, they also serve the capacities of designers, facilitators, monitors, and evaluators (Butarbutar et al., 2023; Butarbutar et al., 2019; Leba et al., 2021). The study discovered that learning objectives were created by instructors and designers in accordance with the English language education foundation and core competencies of the University Musamus Merauke. Additionally, the study revealed that when educators supported students in these group activities for promotion, which included topics for weekly group performances, real-world issues, students' prior experiences (both positive and negative), procedural text-based dialogue, current trending news, and, of course, acting on group activities, their speaking EFL was more promoted, they spoke up more accurately and confidently, and they reduced anxiety due to having any prior experience to share. Similarly, Kaendler et al. (2015) noted the cognitive, collaborative, and metacognitive forms of student involvement during monitoring. In a manner similar to this, Kollar et al. (2007). used internal and external tasks to test collaboration, such as managing interpersonal connections and social interactions. Internal processes such as task management, opinion expression, discussion, and brooding continue throughout this process. According to Gillies and Boyle (2010), these crucial elements have been included to make the adoption of collaborative learning more successful. For instance, educators in collaborative classrooms must reflect on academic achievement, accountability, group projects, interpersonal skills, collaboration abilities (Butarbutar et al., 2023a), and socializing. According to Abrami et al. (2004), knowledge differentiation between user and non-user collaboration pushes educators to better understand collaboration implementation methodologies. Accordingly, Uslu and Durak (2022) claimed that planning, monitoring, and self-regulating procedures could predict learner autonomy. As a result, they emphasize the importance of group engagement in making collaborative activities relevant, as Thornbury and Slade (2006) wrote in their book that teachers play a role in arranging students' interactions in conversation. The results of the open-ended educator interviews showed that role-based strategies in online discussions could help advance speaking EFL. This approach encourages students to take a more active, responsible, and involved role in each group's performance. They were forced to speak up more than usual because they played the role of their classmates. Students were encouraged to speak with confidence while also showing respect for their roles and positions. In contrast, the findings of the educator interviews show that in group projects without role-based separation, only one or two interested students approve of the performance. This is consistent with Cetto et al. (2018) claimed that role-based systems, including message providers, takers, and matchers, are crucial for knowledge management.

According to the findings of the students' interviews, the topics selected were relevant to their prior knowledge and experiences, which encouraged them to be more talkative (Nur & Butarbutar, 2022). For instance, because each group member had personal experience with the Indonesian earthquake disaster in 2019, the initiator students' roles did not have significant difficulty setting the tone for the group's conversation. According to Stokols et al. (2008), prior knowledge, distribution power, and control have an impact on the results of collaboration. Similarly, educator design group assignments have an impact on the implementation of collaborative learning (Gillies & Boyle, 2010). Vigotsky 's (1978) learning constructivism theory contends that students' past knowledge, experience, beliefs, and insights form the foundation of learning and provides substantial support for our position in this situation. In addition, empirical evidence has shown that students actively discuss their earlier experiences. As a result, it is easy for students to speak up in the speaker or narrator role when presenting the evaluator's work. Speaker roleholders can build up a large vocabulary starting in the initiation stage. Speaking with confidence is frequently encouraged through role-based cycle repetition, vocabulary size, fluency, and correctness. According to Bailey and Nunan (2005) and Bailey and Savage (1994), students' fluency and confidence increase when they simultaneously work and engage with pairs and groups of people at the same time. It was also demonstrated that when they worked together, their fluency ratings increased while evaluating their list scores. It's crucial to keep in mind that assigning students to groups based on their roles motivates them to take responsibility for their roles (Chan, Wan, & Ko, 2019), which push them to speak up more and more,

as the excerpt below shows. According to Benne and Sheats (2020, 1948), functional roles are necessary for groups to develop, be productive, harmonize, and strengthen. Here, we concur with Martin (2000) and Martin and Rose (2003), who claimed that affect, evaluation, engagement, and judgment negotiate emotions when engaging in interpersonal interactions. On the other hand, it is referred to as interdependence or group solidarity, rather than rivalry (Johnson, 2003; Johnson & Johnson, 1989). In addition, the group of students recommended by Wang and Xu (2023) will work more collaboratively if they have similar topics, ages, and social relationships. The evidence of our study also clearly attests to the fact that speaking as a productive skill has been promoted in role-based online discussions, including interrupting while other roles are speaking, agreeing or disagreeing with another group's viewpoint, and even when group members are understood. In light of the data, we wholeheartedly embrace what Hughes & Reed (2016, p. 6) wrote in their book "How to Interrupt politely," according to which interrupting is a sociolinguistic skill that is inextricably linked to speaking as a useful skill.

The findings from the FGD, online observation, and interview data indicated that group activities, as shown in Chart 1, improved group members' engagement in each activity. This is in line with the plans created by the educator during the planning phase. The results of the study also showed that role-based group division encourages speaking abilities through collaborative abilities. Some of the subjects discussed include those that are known to be important for group dynamics, leadership, time management, and conflict management. It runs concurrently with Wood and O'Malley (1996). In summary, this situation requires competent educators to make collaborative work comfortable for educators and class group members. In addition, certain collaborative learning assignments are chosen while considering what students already know and believe (Palincsar & Herrenkohl, 2002). In addition, the most recent data come from Ardiningtyas et al. (2023), who claim that scaffolding behaviors such as instructors, consultants, modeling, contingent, and evaluators from more knowledgeable others (MKO) can help novice learners enhance their speaking skills when working collaboratively online. In this case, we claim that role-based and scaffolding are used interchangeably to promote EFL speaking (Butarbutar et al., 2023b). Thus, this study's findings confirm that speaking abilities are more confidently encouraged when one or a small number of peers acknowledge group growth. We acknowledge Veloutsou and Black's (2020) opinion that role-based members' performance can thrive and harmonize brand community engagement in light of the study's most recent findings.

The present study conducted an analysis of student interviews regarding their experiences with online group discussions and responsibilities. The analysis identified language use and performance, as well as affective and motivating elements, as key factors. The findings are consistent with previous research that suggests that students are more likely to speak up in blended collaborations when teachers provide guidance. Additionally, the study found that the affective and social elements that support student collaboration include motivation, curiosity, control, and challenges. The students' perspectives also indicate that their ability to communicate, including their social and emotional abilities, enhances their performance. Therefore, students should be mindful of their social conduct and emotions to encourage speaking during online discussions (Järvenoja, et al., 2020; Isohätälä et al., 2018; Shek & Shek's (2013).

Conclusion and Implications

We draw a general conclusion and agree with Benne and Sheats' functional role pedagogy of group work (2020, 1948). They believe that group work will be more effective if more students are aware of their responsibilities. Therefore, students' speaking skills advance their work in a more productive manner. Additionally, instruction and learning techniques that focus on student-centeredness or include them by enabling role-based teams to collaborate with one another; the findings of this study suggest that understanding and appreciating each role has an impact on student's performance, cognition, affect, motivation (Butarbutar et al., 2019; Butarbutar & Leba, 2023), and outcomes.

The study's findings go beyond EFL online discussions and will help students and teachers develop 21st-century skills of collaboration, critical thinking, communication, creativity, and technology literacy (Nur et

al., 2022). Understanding students' roles and responsibilities within a group or community will foster creativity, encourage more critical thinking, and motivate them to speak and communicate in more confident and effective ways. Therefore, the methods that teachers use to engage their children determine how they play their roles. In general, we make the following knowledge claims about the study, educational practices, and students: Responsibilities promote speaking EFL. The more speaking is supported, the more students become aware of their responsibilities in groups. Speaking promotion becomes more effective when the tactics used by educators are diverse.

The study makes the following recommendations for more research, inasmuch as increasing EFL speaking through role-based involvement in group online discussions is beneficial: Following an investigation into the viewpoints of educators and curriculum designers, the following strategies were developed: (i) impromptu role-based discussions or without prior coordination between teachers; (ii) open-ended speaking diagnostic tasks; (iii) designing for online assessment and evaluation of speaking rubrics; (iv) fluency-oriented speaking tasks; (v) the formation of skill groups for 21st-century students; (vi) technology-assisted peer learning assessments; (vii) gender disparities in collaborative abilities; (viii) projects based on collaboration with pre- and post-group models; and last but not least (ix) students' satisfaction with roles-based group division in online discussion, which is a confirmatory analytical component for roles-based collaboration.

Declarations

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