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African American History and the Politics of Exclusion

by

Mark Beeman, Meghan Brennan, Collins Ezea, & Ayotunde Giwa, Northern Arizona University

Abstract

In 2023, Florida banned the College Board's African American AP History Course from the state's public school curriculum. The ban was highly criticized by educational organizations and civil rights groups as moving race relations backwards; a troubling departure from contemporary race relations norms. Writing on the contemporary post-Civil Rights era, William J. Wilson theorized that racial discrimination had declined in significance. The changing economic base, civil right legislation, and affirmative action led Wilson to conclude that social class had supplanted race in determining the life chances of African Americans. Legally enforceable caste-based discrimination policies, once dominant in the enslavement and Jim Crow eras, no longer seemed sustainable. How does one, then, explain the Florida ban in 2023? We contend that Wilson's declining significance of race interpretation was consistent with the liberal trajectory of federal policy leading up to the Civil Rights Act of 1964; however, it overlooked the persistence of states' rights racial ideology, embedded in conservative politics in the United States. The declining significance of the race era did not eliminate states' rights racial ideology, but federal policy did temporarily suppress it. Our analysis finds that the Florida ban is symptomatic of a new era of race relations marked by the reassertion of states' rights, racial politics supported at the federal level.

Key Words: African American History, Educational Ban, States' Rights

Introduction

In 2023, the Florida Department of Education banned an African-American Studies Advanced Placement (AP) course as a violation of Florida's Stop WOKE Act (Pendharker, 2023). Florida's Governor claimed that the course supported a political agenda rather than presenting factual history; however, the ban was criticized for placing political expediency over the interest of education (Ramirez and Soule, 2023).

Following the work of C. Wright Mills (1959), the contemporary ban represents a public issue which can only be fully understood from a historical perspective. In this context, rather than viewing the ban as a contemporary anomaly, the act may better be understood as a continuation of historical racial discrimination in education in Florida, similar to other states that historically defended legalized slavery and Jim Crow.

Wilson (1980) has outlined three periods of race relations in the United States, in which economic and political arrangements set the context for racialized educational policies. The Pre-industrial Period and the Industrial Expansion Period were both marked by the dominance of caste-based racial discrimination. The Modern Industrial Period has been characterized by the declining significance of race, whereby class became more important than race in determining Black people's life chances.

Wilson's analysis, however, gave little attention to efforts designed to protect dominant group privileges at the state level. Our study suggests that Wilson's third period trajectory may have been overly optimistic, and that the Florida ban is symptomatic of a new era characterized by the reassertion of states' rights and discriminatory policies in education.

The Pre-Industrial Plantation Agricultural Period

During the plantation agricultural period, caste discrimination was the primary factor influencing economic and educational opportunities. Society was stratified by a horizontal color bar in which ascribed racial status at birth relegated most Blacks and their children to lives of enslavement. Plantation owners promoted the myth of paternalistic race relations in which enslaved workers were viewed as childlike beings under the protective watch of their benevolent owners (van den Berghe 1967). In reality, slavery was ruled by both norms and laws, which denied Blacks fundamental human rights (Thompson, 1993).

After the thirteen colonies gained independence, the southern states pushed to count enslaved workers in population totals for congressional representation, at the same time denying them citizenship rights. The northern states rejected this formula, ultimately resulting in including the three-fifths compromise in the U.S. Constitution. States' rights became the basis for each state to create its own laws regarding slavery. Southern states ultimately determined that people born into slavery could remain enslaved for life and granted any White citizen the authority to arrest, beat,

maim, or kill any Blacks who left the confines of the plantation without an escort or a ticket (Rothenberg, 1988).

Planters and legislators also created obstacles to prevent enslaved populations from becoming literate. Denial of education to enslaved workers was always the plantation owner's personal prerogative, but additionally, most southern states enforced this denial by passing anti-assembly and anti-literacy laws (Rassmussen, 2010; Tolley, 2016). Penalties were harsh. Free Whites guilty of teaching Blacks could be fined or imprisoned; free People of Color teaching enslaved Blacks could be fined, imprisoned, or whipped; and enslaved persons who violated the law would receive twenty to thirty-nine lashes on the bare back (O'Neall, 1848; Rothenberg, 1988). Hence, approximately 90% of enslaved Black population in the United States was unable to read or write before emancipation (Lempel, 2018).

The Florida situation was somewhat unique among the southern plantation states. Before 1821, Florida was a Spanish colony. In Spanish Florida, miscegenation was legal, favorable manumission laws existed, and the right of enslaved workers to own and transfer property allowed some to buy their freedom. Spanish Florida became a safe haven for Blacks escaping enslavement in the U.S. South, as those converting to Catholicism could live as free persons. Catholic policy directed priests to educate both European and Black children (Lempel, 2018). In 1850, approximately 70% of free Black people in Florida were literate (Lempel, 2018).

After the Spanish were forced to cede Florida to the United States, the territory enacted slave codes typical of southern states (Florida Legislative Council 1828). Thereafter, Blacks were prohibited from assembling for any reason other than religion or work, effectively ending schooling for Blacks in the state (Poppell, 1998). By the end of the Civil War, only about 15% of the enslaved population in Florida could read (Lempel, 2018).

Attempts to prevent Black literacy during this period served two purposes for the dominant group. First, it reinforced the myth that Blacks were intellectually inferior to Whites. This depiction

of Blacks as childlike was created by the plantation owners to rationalize exploitative forced labor for menial, unpaid tasks and promote the plantation as a family-like institution, with the owner claiming a benevolent father figure status. Second, it was an attempt to prevent Blacks from attaining cultural literacy and interrogating an unjust system of racial domination. Owners feared Black literacy would increase the enslaved population's support for abolitionism and give them exposure to highly publicized rebellions (Tolley, 2016).

The Post-Civil War Industrial Expansion/Jim Crow Period

With the victory of the Union Army over the South and the enactment of the 13th Amendment, the Slave Codes were abolished. During the early Reconstruction years, Black voting rights were established, schools for Black children were built, and colleges were developed to train Black individuals as teachers and in other professions. Black literacy rose to 20% in just five years (about double the rate of the antebellum period), to 55% by 1900, and to 92% by 1959 (Snyder, 1993).

Still, after the Civil War, White southerners attempted to reassert racial dominance through a variety of tactics. Van den Berghe (1967) described this era as consisting of competitive race relations, whereby Whites felt threatened by competition for jobs and other resources from a free Black population. Likewise, Wilson (1980) observes this as a period of industrial expansion which produced economic competition between Blacks and Whites; however, caste discrimination still dominated, leaving race as the most significant factor in determining Blacks' life chances.

The passage of the Black Codes immediately after the war aimed to re-establish forced Black labor through vagrancy and apprenticeship laws (Richardson, 1969). Violence was prevalent. Despite a brief attempt to prosecute organized racial violence by the federal government, the Ku Klux Klan generally went unpunished for terrorizing Blacks (Wade, 1987). Subsequent Jim Crow laws banned racial intermarriage, eliminated most of the Black vote, and segregated the workplace, public accommodations, and the schools. During this era, public lynchings of Blacks were often condoned

by local business leaders and authorities throughout the South (Raper, 1933). Political rhetoric openly hostile to African American equality was the norm, and "separate but equal" upheld by *Plessy v. Ferguson* became a disingenuous cover for segregationist inequality.

In Florida, the first public school for African American children opened in 1868, and the following year, the state legislated racial segregation for all schools (Popell, 1998; Mitchell, 1970). By 1885, the state constitution further clarified that no African American teachers could teach White students, White teachers could not teach African Americans, and African American and White students could not attend the same school (Florida Constitutional Convention 1885). By 1889, lawmakers made "race-mixing" in education a penal offense (Winsboro and Bartley, 2014). The 1893 Florida Sheats' Laws penalties for "race-mixing" in education included fines of up to \$500 or prison terms of 3 to 6 months (Florida Timeline, 2025).

Unequal funding for the schools revealed the myth of "separate but equal." In 1914, per capita spending favored White students over African American students \$12.50 to \$2.87; and the state allocated 91.8% of its overall educational budget for White schools, although African Americans comprised 41% of the student population (Winsboro and Bartley, 2014). By 1940, per capita spending was \$6.39 for White students and \$0.80 for Black students (Tomberlin, 1974). Put another way, more money was spent on White students by the end of first grade, than for Black students over 12 years of education.

Florida, as with the other southern states, segregationist politicians and the White Citizens Councils actively resisted desegregating schools after *Brown v. Board of Education*, 1954 (Schnur, 1991). In an effort to stave off integration, the state significantly reduced the racial discrepancy in spending during the 1950s, accompanied by increases in the salaries of Black teachers (Tomberlin, 1974). However, by the mid-1960s, openly racist states' rights segregation policies were losing ground. The Freedom Riders, the Freedom Summer Volunteers, and the mass demonstrations and boycotts of the Civil Rights activists were effective in winning increasing public support. Even the

most strident political public opposition to enrolling African American students in white institutions was being challenged. During this period, the federal government moved to counteract states' rights policies. In cases of extreme resistance, the President of the United States would send federal troops to escort African American students into southern schools and universities (Eisenhower Library 2025; JFK Library 2022). At the federal level, the legislature ultimately passed the Civil Rights Act of 1964 and the Voting Rights Act of 1965, which signaled the *de jure* defeat of Jim Crow.

The Modern Industrial Civil Rights Period

The post-World War II modern industrial period eroded much of the racial strife experienced in the industrial sector, according to Wilson (1980). Because of the expansion of job opportunities in both the government and the corporate sectors and the movement from a production to a service economy, this period saw both the growth of the Black middle-class and the rise in Black unemployment, especially among younger Blacks in urban areas. Wilson reasoned that affirmative action policies provided greater opportunities for well-educated Blacks, but Blacks concentrated in urban centers with high unemployment and poorly funded public schools would not benefit. He concluded that race declined in significance (allowing middle-class Blacks to advance) and social class emerged as the dominant factor in determining Blacks' economic chances. Hence, Wilson advocated for class-based whole employment policies rather than race-based affirmative action policies that he believed only served the interests of more privileged Blacks.

Here, Wilson seems to find fault with the main focus of civil rights activism historically. He states "...although the civil rights movement reflected the needs and interests of the black middle class, it did not sufficiently address the unique problems of class subordination and de facto segregation in the black ghetto"(Wilson, 1980, p. 142) However, while Wilson meticulously details the trajectory of race discrimination in employment, which is in itself a commendable accomplishment, he gives little attention to developments in other sectors.

Consistent with his thesis, Wilson addresses education essentially as a class-based issue; that is, middle-class Blacks sent their children to private schools while urban schools deteriorated. This observation, however, seems to downplay that challenging segregation in the schools itself was a foundational accomplishment of civil rights activism. Indeed, *Brown v. Board* not only legislated against *de jure* educational segregation, but it also set the stage for dismantling the entire Jim Crow system. While delayed considerably after *Brown*, desegregation court orders did, beginning in the 1970s, move many African American students out of hyper-segregated schools (Orfield and Yun, 1999). Specifically, the courts ruled in favor of integration policies in *Mannings v. Board*, *5th Cir. 1960, Swann v. Charlotte–Mecklenburg, 1971, and Mims v. Duval County School Board*, 1971 (Poppell, 1998; Schnur, 1991). From 1971 to 1991, public schools, particularly in the South, saw significant improvement in integrating White and African American students (Orfield, 2001). Additionally, affirmative action policy had been implemented through executive orders and looked to make significant impacts both in employment and in university admissions (*Steelworkers of America v. Weber*, 1979; Bok and Bowen, 2019).

In the political arena, hostile segregationist rhetoric was losing favor by the 1970s. George Wallace's presidential campaign of 1972 was an indication, shifting from hardcore segregation and anti-Black rhetoric, Wallace insisted he was not a racist, but instead shifted to law and order/anti-busing rhetoric similar to Nixon's southern strategy approach (Wooten, 1972). In Florida, the segregationist Governor Claude Kirk was defeated as an incumbent in 1970 by Reubin Askew, who won accolades from the NAACP and SCLC for his pro-busing integration approach to education. Meanwhile, the organization formed to keep schools segregated, the Florida Citizens Council, was disbanded by 1973 (Schnur, 1991).

Even in this era of positive accomplishments, however, problems had emerged that led many scholars to believe the significance of race had not declined. However, rather different forms of racism had adapted to new conditions. Researchers have described the adaptations that transitioned

from Jim Crow racism to modern racism, symbolic racism, or laissez-faire racism as constituting new forms of resistance to achieving racial equality (McConahay and Hough, 1976; Hughes, 1997; Bobo, Kluegel, and Smith, 1997). At this point, dominant group members claimed that the playing field concerning race relations had been leveled and that any programs that attempted to address past or continued discrimination against people of color constituted reverse discrimination against Whites.

The Reassertion of States' Rights Racism

For Wilson, the focus on class as opposed to race as the main determinant of African Americans' life chances was reinforced by his belief that race-related struggles had shifted from the economic sector to the sociopolitical arena. It is our contention that this distinction is a heuristic one, albeit not an entirely accurate reflection of social reality.

The dramatic defeat of Jim Crow was, in effect, a blow against states' rights race politics in the South. The defeat of Jim Crow opened up academic and economic opportunities for the Black middle class, while also creating manufacturing job opportunities for the working class (Moss, Lazonick, and Weitz 2020). However, these were to be short-lived, as globalization and the export of manufacturing jobs to areas with lower labor costs ensued. Black women in particular, who disproportionately lost their jobs during this downsizing period, were unlikely to find protection from the courts (Crenshaw, 1989). Importantly, Wilson may have also underestimated the economic vulnerability of the Black middle class. From 1994 to 2001, middle-class Blacks were about twice as likely to be laid off as middle-class Whites in the private sector, and about 50% more likely to be laid off than middle-class Whites in the public sector (Wilson and McBrier, 2005). Through 2016, inequality between Blacks and Whites had not improved over the previous 50 years, with 73% of Whites and only 10% of Blacks being "solidly middle class" (Darrity, Aldo, and Smith 2020). Darrity et al. reasoned that the only realistic means to address this discrepancy would be a national program aimed directly at racial wealth inequalities (2020). This, of course, would have to be implemented through the political sector.

Beginning in the 1960s, the Republican Party conservatives capitalized on convincing the former Southern Democratic states' rights conservatives to switch parties. Nixon initiated the process with his southern strategy. Harry Dent, the former advisor to the segregationist Strom Thurmond, advised Nixon to use law and order and anti-busing campaign rhetoric rather than openly hostile anti-Black language (Kotlowski, 1998). During his 1980 presidential campaign, Reagan expanded the southern appeal by campaigning for a return to states' rights in Neshoba County, Mississippi, where Klansmen had killed anti-Jim Crow Freedom Summer volunteers (Neshobademocrat 1980). These signals were viewed as welcoming conservative southern politicians and voters to form the new base of the Republican Party. Consistent with this approach, both George H. W. and George W. Bush presidential campaigns invoked racist imagery with their Willie Horton ad and John McCain's "Black illegitimate" daughter push poll (Blakemore, 2018; Steinhauer, 2017).

Additionally, the 2000 presidential campaign of George W. Bush was noted for its massive Black voter suppression tactics in Florida, affecting the outcome of the election (USCCR 2001). After the *Shelby v. Holder* 2013 decision struck down the federal preclearance provision of the Voting Rights Act of 1965, voter suppression policies were implemented throughout the southern states, as well as other states with conservative leaders, although some of the most blatantly discriminatory attempts were struck down by the courts (Carnegie Corporation 2019; Singh & Carter, 2023).

In the post-Obama years, Donald Trump campaigned with a call for a return to states' rights on abortion policy, popular with his conservative Christian evangelical base (Manchester, 2024). At the same time, his get out the vote strategies fueled fears of the Whites being replaced by Latin American immigrants (labelled as rapists, criminals, and gang members), or having Haitians immigrants eat their dogs (Cercone, 2024).

Given this context, we return to Wilson's argument that racial discrimination for middle-class Blacks declined in the contemporary era. In 2012, Wilson still optimistically observed that "trained and educated blacks, like trained and educated whites, will continue to enjoy the advantages and

privileges of their class status"(2012:178). He stated that powerful forces "will mitigate against any effective and systemic movement to exclude qualified blacks"(2012:178). He supported this contention by noting that even the *Bakke* decision of 1978, which eliminated racial quotas, did not "turn the clock back" as the court allowed race to be used as one consideration in college admissions.

However, Wilson's outlook was overly optimistic. Beginning in the 1990s, the courts increasingly allowed the resegregation of schools (Orfield and Frankenberg, 2014). Affirmative action programs were targeted at the state level. From 1996 through 2012, seven states enacted affirmative action bans either through referendums or executive action (Antram, 2023; EO 99-281 1999). By 2023, the Supreme Court reversed decades of precedent and banned affirmative action remedies for college admissions (*Students v. Harvard 2023*). Governor DeSantis boasted Florida had gone beyond the Supreme Court ruling by banning funding for all university Diversity, Equity, and Inclusion programs (CBS Miami Team 2023). Trump, in his first term, banned diversity training for federal government workers, which included discussing white privilege or critical race theory, and by the second term in 2025, he called for an all-out elimination of Diversity, Equity, and Inclusion programs in universities and government programs (BBC, 2020). Major corporations followed suit (Li, 2025). Essentially, the political economy had reversed course in areas that facilitated the declining significance of race for the Black middle class.

It is in this contemporary context, where the federal government has abandoned diversity protections, that Florida has exerted its state's rights by banning AP African American History as an elective course.

The Ban

Governor DeSantis led the political move against AP African American History in Florida, exclaiming, "We will not allow Florida tax dollars to be spent teaching kids to hate our country or to hate each other. We also have a responsibility to ensure that parents have the means to vindicate their rights when it comes to enforcing state standards" (DeSantis, 2021). The stage had previously been

set by Heritage Foundation which asserted that "ethnic studies is not a benign discipline—it is a radical field based on Marxist ideas that teaches students to prioritize their racial, ethnic, sexual, or 'gender' identities over a shared national allegiance and national identity" (Heritage Foundation, 2024).

In 2022, Florida enacted the Stop WOKE ACT. Part (a) prohibits promoting the linking of moral superiority, inherent oppressiveness, moral character, respect, responsibility for other persons' past discriminatory actions, discrimination for DEI purposes, or causing students' feelings of guilt or mental anguish, to the students' race, color, national origin, or sex. It also prohibits espousing that:

8. Such virtues as merit, excellence, hard work, fairness, neutrality, objectivity, and racial colorblindness are racist or sexist, or were created by members of a particular race, color, national origin, or sex to oppress members of another race, color, national origin, or sex (FIRE 2024).

The act concludes:

(b) Paragraph (a) may not be construed to prohibit discussion of the concepts listed therein as part of a larger course of training or instruction, provided such training or instruction is given objectively without endorsement of the concepts (Fire 2024).

To summarize, the goal of the legislation is to eliminate guilt about the discrimination done in the past by members of one's race or sex, to prevent DEI initiatives, and ensure that no discussion of the concepts will be prohibited as long as they are presented objectively and without endorsement. However, Florida contradicts their own policy by prohibiting concepts for discussion. The legislation explicitly does not allow for "racial colorblindness" (point #8) to be discussed in an "objective" manner; instead, it is predetermined to be a virtue. Also prohibited in Florida's SB266-23 legislation is any discussion that includes identity politics or theories "that systemic racism, sexism, oppression, and privilege are inherent in the institutions of the United States..." (SB266 2023). In other words,

despite claiming that "no discussion of the concepts will be prohibited," Florida indeed prohibits a number of contemporary theories and concepts.

Consistent with this trend to ban educational information, Florida's Department of Education rejected the College Board AP African American History course in its schools, stating the course was not in compliance with the law. The political rhetoric surrounding the ban focused on four unfounded claims.

Claim 1: The African American History course would make children feel uncomfortable or guilty in the classroom.

There is little evidence to suggest children have complained about the course, making them feel guilty. On the contrary, both the legislation and complaints have generally come from politicians and a small number of parents aligned with right-wing political organizations (Heilig, 2025). Moreover, research has shown that taking courses focused on diversity-related content and diverse classroom interactions has produced a host of benefits, such as better academic performance, better attendance, higher graduation rates, enhanced self-image, greater sense of personal safety, improved career aspirations, and improved critical thinking (Gurin, Biren and Lopez 2004; Sleeter, 2011; Sleeter and Zavada 2020).

Claim 2: *Diversity education is indoctrination.*

Florida is not the first state to claim students are being indoctrinated. In fact, much of the content of the Florida anti-WOKE law had been previously developed in Arizona and used to ban the Ethnic Studies program in the Tucson Unified School District. Politicians attacked the program as being anti-American, immoral, seditious, and promoting racial hatred (Palos, 2011). In 2010, Arizona implemented A.R.S. 15-112, banning courses designed for one ethnic group or courses promoting the overthrow of the government, racial resentment, or ethnic solidarity. The law was used to ban Ethnic Studies in the Tucson Unified School District, even though the state's own audit determined that the Ethnic Studies program did not violate the law. The audit concluded that the

Tucson Ethnic Studies program served as a model for core curriculum education, significantly increasing graduation rates (Cambium Learning, 2011). Research has found that diversity education, in general, is associated with increased commitment to democratic values (Dee and Penner, 2016; Gurin, Biren, and Lopez, 2004; Sleeter and Zavada, 2020).

Florida's claim of noncompliance with the law appears as problematic as was the case in Arizona. After being informed of the ban, the College Board revealed: "We never received written feedback from the Florida Department of Education specifying how the course violates Florida law, despite repeated requests" (All Access 2024).

Claim 3: Diversity Education is divisive and fosters hate.

We find no evidence for the claims that African American History promotes divisiveness or fosters hate in Florida. This approach is particularly suspect when Florida officials make no effort to investigate these claims. Instead, Florida officials listed several authors and topics they objected to in the first version of the African American History course, but still refused to accept the course even after (falsely) claiming the objected material had been removed by the College Board (All Access 2023).

The claims of ethnic studies promoting hate and division have been previously investigated, but not in Florida. As mentioned earlier, these claims were investigated by an audit commissioned by the State of Arizona. The audit found no evidence of hatred or divisiveness being promoted by Ethnic Studies. Indeed, both administrators and teachers emphasized the importance of respecting others and respecting oneself (Palos, 2011). In Arizona, the Ethnic Studies students themselves initiated a "Unity Day" to foster better understanding with their schoolmates (Palos, 2011). General research finds that diversity-focused classrooms and curriculum result in greater respect for other groups, and a decreased sense of division between groups (Graham, 2018; Gurin, Biren, and Lopez, 2004; Juvonen, Kogachi, and Graham, 2017).

Claim 4: Education is better served as a states' rights issue.

As we have seen, "states' rights" has unfortunately been used as code to defend racial discrimination in the United States. It has been a popular claim that states know the needs of their populations better than the federal government, but state policy has also taken away decisions from local communities. In the case of Florida, regardless of how local communities feel about diversity education, the DeSantis administration has deprived students *the option* of taking AP African American History. By 2024, Arkansas and South Carolina joined Florida in eliminating AP African American History as well (Alfonseca, 2024).

Again, the Arizona case provides some insights into the politics of diversity education. A partisan vote passed laws prohibiting instruction based on vague concepts that construed ethnic studies courses as an existential threat. These threats included promoting the overthrow of the government, racial resentment, and ethnic solidarity (HB 2218). The ban implemented in 2010 was challenged in court and eventually overturned in 2017. The court concluded that the ban "was enacted and enforced, not for a legitimate educational purpose, but for (i) an invidious discriminatory racial purpose, and (ii) a politically partisan purpose – to shut down the TUSD MAS Program – in violation of the First and Fourteenth Amendments to the Constitution" (*Gonzalez v. Douglass* 2017).

Gonzalez v. Douglass observed that Tom Horne and John Huppenthal promoted the ban as part of their campaigns to seek elected state offices. In Florida, DeSantis openly celebrates creating state policies where "WOKE comes to die" and going beyond the Supreme Court's ban on affirmative action by banning all DEI programs in the state (Aguila, 2023; CBS, 2023; Moody, 2024). In Arizona, the attack on Mexican-American Ethnic Studies education occurred during a period of an expanding Latino population and potential political power. In Florida, the attack on African American History comes as African Americans have become a significant political force in the state. The Florida anti-WOKE legislation and subsequent ban on AP African American History marks a continuation of a long history of states' rights anti-Black literacy legislation. Russell-Brown observes, "The thread which connects basic and substantive anti-literacy laws is their goal to prevent

Black people and others from accessing knowledge that will enable racial equality" (Russell-Brown, 2023).

Conclusion

As we reflect on Florida legislation, we can make some summary comments. First, the banning of the Florida AP African American History course was tied to other legislation designed to impose restrictions on what students can learn, and in particular what they can learn about African American history. Second, this type of legislation is not new, but constitutes part of a pattern. Racially discriminatory educational policy began in the plantation slavery period, was sustained through the Jim Crow period, and now has been re-asserted in the twenty-first century. Third, this contemporary legislation seeks to maintain white structural dominance over racial minority groups. In Florida the primary target is African Americans. Fourth, the primary rationalization for legislating educational racial dominance is the states' rights argument. Fifth, states' rights political strategy is particularly damaging when supported by the three branches of the federal government. In periods where the federal government actively defends civil rights, more equitable educational policies can be advanced. For example, attempts at more inclusive educational policies occurred during the brief period at the beginning of reconstruction and in the desegregation years following the passage of civil rights legislation in the 1960s.

As we have seen, the periodization of race relations as defined by Wilson accurately reflected the caste dominance of the plantation slavery and Jim Crow periods, but over optimistically projected the modern period as one of declining racial significance. The retreat of the federal sector on civil rights through the abandonment of affirmative action by the courts and the banning of DEI initiatives at the federal level have allowed those states controlled by conservative politics, especially those with a history of racial segregation, to reclaim white dominance through legislative actions. Here we find that the persistence of states' rights racial ideology may have been underestimated. The contemporary

era constitutes a new, distinct period in U.S. race relations, establishing the increased significance of discriminatory race-based policy under the guise of colorblindness.

Social theorists give us insights to understand that this transition does not constitute a definitive break with the past. States' rights racism appears to be a constant presence, but at times resides just below the surface of political activity. Bell was prescient with his observation that breakthrough civil rights legislation did not indicate full acceptance of equality for Blacks, but rather a temporary convergence of interests between civil rights forces and dominant group interests (Bell, 1980). Crenshaw adds important context by noting that systemic discrimination remains embedded in legislation and court rulings (1989). Bonilla-Silva found that the ideology of colorblindness has not been an effective solution for racial problems in the United States, but rather a convenient cover for continued discrimination (2017). The late twentieth century has been characterized by an emerging neo-conservative hegemonic racial ideology which despised multiculturalism, advanced colorblindness, and engendered authoritarian populism (Omi and Winant, 1994).

Florida's exclusion of African American history from the AP curriculum represents a process of selective transmission, stripping away narratives that challenge white supremacy while centering a sanitized, depoliticized version of American history. These represent what Bourdieu and Passeron (1990) describe as the arbitrary imposition of dominant culture through legislative mandates, strategic news framing, coded language, and appeals to "patriotism" and "objectivity," that collectively reaffirm whiteness as the normative center of the curriculum while marginalizing other perspectives.

In this regard, Florida projects the facade that they did not ban African American History; instead, they have replaced an AP course that "lacks educational value" with a state-approved African American History course (Hartocollis and Fawcett, 2023). However, Florida's commitment to African American history appears disingenuous. Florida ignored the implementation of African American History in its curriculum for years. In 1994, the state legislature required African American history to be taught in public schools, but thirty years later, over half of the traditional

school districts still had no standalone course (CBS News, 2024). Only recently, when students were presented with the opportunity to take an AP course designed by qualified scholars in the field of African American Studies, did the state decide to develop a course designed to appease partisan politicians who have attacked diversity initiatives.

Informing students about the significance of race has historically been a challenge. Each era exhibited its own strategies for resistance. During the plantation period, enslaved workers on plantations hid books and pamphlets from their owners; others secretly organized "pit schools," free Blacks secretly instructed some, and others escaped to free states or Canada, where literacy was legal (Library of Congress 2023). During the Jim Crow era, African American teachers toiled to improve literacy rates in segregated schools constrained by industrial education curricula, NAACP court actions challenged separate but equal education, and civil rights workers and volunteer activists registered voters and organized freedom schools where basic subjects and African American history were taught (Fusco, 1991). Establishing ethnic studies programs and incorporating critical African American perspectives into university curricula was born of student activism nurtured by faculty committed to diversity education during the modern industrial period (Yang, 2000).

In the present era, racially discriminatory policies in education are being met with varying forms of resistance. Nationally, Harvard became the first university in the United States to defy the Trump administration's anti-DEI/anti-student activism directives at the cost of over \$2 billion in federal funds and the threat of losing tax-exempt status. Harvard has since sued the Trump Administration (Powell, 2025). Shortly thereafter, Harvard was joined by over 500 universities in signing a letter protesting the Trump administration's government overreach (AACU 2025).

In Florida, the NAACP issued a travel advisory for the state, exclaiming "Florida is openly hostile toward African Americans, people of color, and LGBTQ+ individuals" (NAACP, 2023). Religious leaders, civil rights activists, and politicians gathered at the state capitol to protest the policy in February of 2023 (Walsh, 2023). Community organizations and more than 400 religious

groups have committed to teaching weekend African American history courses in Florida communities (Payne, 2024). A coalition of teachers, parents, and the Florida Education Association has filed a lawsuit against the state of Florida for banning diversity-themed books. The NAACP has distributed over 10,000 banned titles to Florida communities (FEA 2023; NAACP, 2023). As Florida attempts to paint the banned AP course as lacking merit, the demand for it grows across the United States. The first-year pilot program included 60 schools, and last year, the program was expanded to 700 schools across 40 states (Flannery, 2024).

All of this informs us that education historically has been a battleground over whether African Americans have the right to be represented through an honest and accurate lens. The current era of reasserting states' rights racial ideology as a conservative political strategy indicates that this struggle is far from over.

References

- AAUC (2025) American Association of Colleges and Universities. *A call for constructive engagement*. https://www.aacu.org/newsroom/a-call-for-constructive-engagement
- Aguila, G. (2023). To DeSantis, Florida is 'where woke goes to die.' Some South Florida leaders disagree.https://www.miamiherald.com/news/politics-government/state-politics/article276619 086.html June 22, 2023

- Alfonseca, K. (2024). *AP African American studies dropped in South Carolina*. ABC News. https://abcnews.go.com/US/ap-african-american-studies-dropped-south-carolina-prompting/st-ory?id=111028176
- All Access (2023) https://allaccess.collegeboard.org/college-board-responds-florida-department-education
- An Act Concerning Slaves, Free Negroes, and Mulattoes. (1828). https://www.floridamemory.com/items/show/345405?id=1
- Antram, V. (2023). Voters in seven states have decided on 10 affirmative action ballot measures.

 Ballotpedia

 News.

 https://news.ballotpedia.org/2023/06/30/voters-in-seven-states-have-decided-on-10-affirmative-action-ballot-measures/
- BBC. (2020, September 4). *Donald Trump: What is the truth about his US military remarks?*https://www.bbc.com/news/world-us-canada-54038888
- Bell, D. A. (1980). Brown v. Board of Education and the interest-convergence dilemma. Harvard Law Review, 93(3), 518–533.
- Bertocchi, G., & Dimico, A. (2012). Slavery, education, and inequality. *Journal of Comparative Economics*, 40(4), 533–550. https://doi.org/10.1016/j.jce.2012.04.001
- Blakemore, E. (2018). How the Willie Horton Ad Played on Racism and Fear.

https://www.history.com/articles/george-bush-willie-horton-racist-ad

- Bobo, L., Kluegel, J. R., & Smith, R. A. (1996). Laissez-faire racism: The crystallization of a "kindler,
 - gentler' anti-Black ideology" in Racial Attitudes in the 1990s: Continuity and

 Change, edited by

 Steven A. Tuch and Jack K. Martin. Praeger.
 - Bok, D., & Bowen, W. (2019). The shape of the river: Long-term consequences of considering race in college and university admissions (20th anniversary ed.). Princeton University Press.

- Bonilla-Silva, E. (2017). Racism without racists: Color-Blind racism and the persistence of racial inequality in America (5th ed.). Rowman & Littlefield
- Bourdieu, P. (1991). *Language and symbolic power* (J. B. Thompson, Ed.; G. Raymond & M. Adamson, Trans.). Harvard University Press.
- Bourdieu, P., & Passeron, J.C. (1990). *Reproduction in education, society and culture* (R. Nice, Trans.). Sage. (Original work published 1970)
- Brown, F. (2004) Nixon's "Southern Strategy" and Forces Against Brown. *The Journal of Negro Education*, 73(3), 191-208
- Cambium Learning. (2011). Curriculum audit of the Mexican American Studies Department, Tucson Unified School District.
- Carnegie Corporation (2019). https://www.carnegie.org/our-work/article/voting-rights-timeline/
- CBS Miami Team. (2023, June 30). Ron DeSantis responds to Florida Supreme Court ruling on affirmative action. CBS News.

 https://www.cbsnews.com/miami/news/ron-desantis-florida-supreme-court-ruling-affirmative-action/

CBS News (2024).

https://www.cbsnews.com/miami/news/florida-requires-teaching-black-history-some-dont-tru st-schools-to-do-it-justice-2/

- Cercone, J. (2024). Trump repeats baseless claims that Haitian immigrants in Springfield, Ohio, are

 eating

 pets.

 https://www.yahoo.com/news/trump-repeats-baseless-claim-haitian-102538855.html
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989(1), 139–167. https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

- Crenshaw, K. W. (2019). Unmasking colorblindness in the law: Lessons from the formation of critical race theory. In K. W. Crenshaw, L. C. Harris, D. Martínez HoSang, & G. Lipsitz (Eds.), Seeing race again: Countering colorblindness across the disciplines (pp. 52–84). University of California Press
- Darity, W; Addo, FR; Smith, IZ (2021) A subaltern middle class: The case of the missing "Black bourgeoisie" in America. *Contemporary Economic Policy*.

https://doi.org/10.1111/coep.12476

- Dee, T. S., & Penner, E. K. (2016). *The causal effects of ethnic studies: Evidence from San Francisco*.

 Stanford Center for Education Policy Analysis.

 https://news.stanford.edu/stories/2016/01/ethnic-studies-benefits-011216
- DeSantis. (2021, December 15). Governor DeSantis announces legislative proposal to stop WOKE activism and critical race theory in schools and corporations. *Office of Governor Ron DeSantis*.

https://www.flgov.com/2021/12/15/governor-desantis-announces-legislative-proposal-to-stop-woke-activism-and-critical-race-theory-in-schools-and-corporations/

- Education Week. (2025). Map: Where critical race theory is under attack. https://www.edweek.org/policy-politics/map-where-critical-race-theory-is-under-attack/2021/

 06
- EO 99-211. (1999). Executive Order 99-211. https://dms-media.ccplatform.net/content/download/705/3389/file/ExecutiveOrder99-281.pdf

Library

(2025).

https://www.eisenhowerlibrary.gov/research/online-documents/civil-rights-little-rock-school-i

ntegration-crisis

Eisenhower

FEA. (2023). Teachers, librarians, and parents challenge censorship agenda. https://feaweb.org/release/teachers-librarians-parents-challenge-censorship-agenda/

- FIRE (2024) American Foundation for Individual Rights. (n.d.). *The Stop WOKE Act: Provisions*related to higher education. FIRE.

 https://www.thefire.org/research-learn/stop-woke-act-provisions-related-higher-education
- Flannery, M. E. (2024). What really happens with AP African American studies? National Education Association.

https://www.nea.org/nea-today/all-news-articles/what-really-happens-ap-african-american-studies

Florida Senate Bill 266, Postsecondary Education, Reg. Sess. (2023).

Florida Timeline. (2025). 1895: Sheats Law targets the only integrated private school in Florida.

https://www.floridatimeline.org/timeline/1895-sheats-law-targets-the-only-integrated-private-school-in-florida/

Florida Constitutional Convention (1885). *Journal of the proceedings of the Constitutional*Convention of the state of Florida.

Fusco, L. "Freedom Schools In Mississippi (1964)." *The Radical Teacher*, no. 40 (1991): 37–40. http://www.jstor.org/stable/20709702.

Gonzalez v. Douglas, 269 F. Supp. 3d 948 (D. Ariz. 2017).

Graham, S. (2018). Race/ethnicity and social adjustment of adolescents: How (not if) school diversity matters. *Educational Psychologist*, *53*(2), 64–77.

https://doi.org/10.1080/00461520.2018.1428805

Gurin, P., Nagda, B. A., & Lopez, G. E. (2004). The benefits of diversity in education for democratic citizenship. *Journal of Social Issues*, 60(1), 17–34. https://doi.org/10.1111/j.0022-4537.2004.00097.x

Gurin, P., Nagda, B. A., & Lopez, G. E. (2004). The benefits of diversity in education for democratic citizenship. Journal of Social Issues, 60(1), 17–34. https://doi.org/10.1111/j.0022-4537.2004.00097.x

- Hartocollis, A., & Fawcett, E. (2023, February 1). *The College Board strips down its A.P. curriculum* for African American studies. The New York Times.

 https://www.nytimes.com/2023/02/01/us/college-board-advanced-placement-african-american-studies.html
- HB7, The "Stop WOKE Act," Florida House of Representatives, Reg. Sess. (2022).

 https://www.flsenate.gov/Committees/BillSummaries/2022/html/2809#:~:text=The%20bill%2
 0authorizes%20discussion%20and,protecting%20democratic%20values%20and%20institutio
 ns.
- Heilig, J. (2025). Moms for Liberty: The new face of authoritarianism in America's classrooms. https://cloakinginequity.com/2025/04/13/moms-for-liberty-the-new-face-of-authoritarianism-in-americas-classrooms/
- Heritage Foundation. (2024). *Hey, hey, ho, ho, ethnic studies have got to go*. https://www.heritage.org/education/report/hey-hey-ho-ho-ethnic-studies-have-got-go
- Hughes, M. (1997). "Symbolic Racism, Old-Fashioned Racism, and Whites' Opposition to Affirmative Action." Pp. 45-75 in Racial Attitudes in the 1990s: Continuity and Change, (eds) S. Tuch and J. Martin. Praeger.
- JFK Library (2022). https://www.jfklibrary.org/learn/about-jfk/jfk-in-history/civil-rights-movement
 Juvonen, J., Kogachi, K., & Graham, S. (2017). When and how do students benefit from ethnic diversity in middle school? Child Development, 89, 1–17.
 https://doi.org/10.1111/cdev.128341
- Kaufman, A. (2023). *Gov. Ron DeSantis' feud with the College Board....* USA TODAY. https://www.usatoday.com/story/news/education/2023/05/22/ron-desantis-ap-african-american-studies-ban-explained/11418542002/
- Kotlowski, D.J. (1998). Richard Nixon and the Origins of Affirmative Action. *The Historian*, 60(3), 523–541. https://doi.org/10.1111/j.1540-6563.1998.tbo1405.x

Lempel, L. (2018). The long struggle for quality education for African Americans in East Florida. *Journal of Florida Studies, 1*(7), 1–30.

LeRoy Collins Institute. (2024). *Florida Election Study 2022*. Florida State University. https://www.lci.fsu.edu/wp-content/uploads/2024/01/Florida-Election-Study-2022.pdf
Li, R. (2025).

https://www.azcentral.com/story/entertainment/life/2025/03/13/30-companies-that-removed-dei-programs-trump/82268705007/

Library of Congress. (2023). Floating Freedom School. file:///Users/mab/Desktop/Floating-Freedom-School Meachum.html

López, I. H. (2014). Dog whistle politics: Strategic racism, fake populism, and the dividing of America. Oxford University Press.

Loving v. Virginia, 388 U.S. 1 (1967).

Mamlok-Naaman, R. (2024). Diversity and inclusion in science education: Why? A literature review. Weizmann Institute of Science. https://files.eric.ed.gov/fulltext/EJ1423964.pdf

Manchester, J. (2024, October 8). Trump's shifting abortion stance raises questions for evangelical support.

The

Hill. https://thehill.com/homenews/campaign/4921783-trump-abortion-stance-evangelicals/

Mannings v. Board of Public Instruction of Hillsborough County, Florida, 277 F. 2d 370 (5th Cir. 1960).

McConahay, B. and Hough, J. (1976). "Symbolic Racism." Journal of Social Issues 32:23-45

Mitchell, R. L. (1970). Legislative Provisions and Their Effects on Negro Public Education in Florida, 1869–1947 [Doctoral dissertation, Florida State University].

Mills, C. W. (1959). *The sociological imagination*. Oxford University Press.

- https://www.insidehighered.com/news/governance/trustees-regents/2024/01/18/dei-spending-banned-sociology-scrapped-florida
- Moss, P., Lazonick, W., & Weitz, J. (2020). Employment and earnings of African Americans fifty years after: Progress?

 https://www.ineteconomics.org/uploads/papers/WP_129-Lazonick-et-al-final.pdf
- NAACP. (2023). NAACP issues travel advisory for Florida. https://naacp.org/articles/naacp-issues-travel-advisory-florida
- Neshoba Democrat. (1980). Ronald Reagan's 1980 Neshoba County Fair speech. https://neshobademocrat.com/stories/ronald-reagans-1980-neshoba-county-fair-speech,49123
- NPR. (2023). Florida rejects AP class African American studies. https://www.npr.org/2023/01/22/1150259944/florida-rejects-ap-class-african-american-studies
- Omi, M., & Winant, H. (1994). Racial formation in the United States: From the 1960s to the 1990s (2nd ed.). Routledge.
- O'Neall, J. (1848). The Negro law of the South. Columbia: John G. Bowman.
- Orfield, G. (2001). *Schools more separate: Consequences of a decade of resegregation*. The Civil Rights Project, UCLA. https://escholarship.org/uc/item/5cx838jx
- Orfield, G., & Yun, J. T. (1999). *Resegregation in American schools*. The Civil Rights Project, Harvard University.
- Orfield, G., & Frankenberg, E. (2014). Increasingly segregated and unequal schools as courts reverse policy. *Educational Administration Quarterly*, *50*(5), 718–734.
- Palos, A. (2015). Precious Knowledge. Kanopy Streaming.
- Payne, K. (2024). Florida's Black history controversy. https://apnews.com/article/florida-black-history-desantis-african-american-education-8d14b05 5ddda651d2761dca30bba5600

- PBS NewsHour. (2023, January 23). DeSantis defends blocking African American studies course in Florida schools.

 https://www.pbs.org/newshour/show/desantis-defends-blocking-african-american-studies-cour se-in-florida-schools
- Pendharkar, E. (2023, January 24). Florida's ban on AP African American Studies, explained.

 Education

 Week.

 https://www.edweek.org/teaching-learning/floridas-ban-on-ap-african-american-studies-explained/2023/01
- Poppell, J. B. (1998). *The desegregation of a historically Black high school in Jacksonville, Florida* (Master's thesis, University of North Florida). https://digitalcommons.unf.edu/etd/74/
- Powell, A. (2025). https://news.harvard.edu/gazette/story/2025/05/university-sues-administration-over-move-to-b ar-international-students-scholars/
- Ramirez, M. and Soule, D. (2023). 3/01/19/florida-rejects-proposed-ap-african-american-studies-course/11083672002/
- Raper, A. (1933). The Tragedy of Lynching. North Carolina Press.
- Rasmussen, B. B. (2010). "Attended with great inconveniences": Slave literacy and the 1740 South Carolina Negro Act. *PMLA*, *125*(1), 201–203. http://www.istor.org/stable/25614450
- Richardson, J. M. (1969). Florida black codes. *The Florida Historical Quarterly*, 47(4), 365–379.
- Rothenberg, P. (1988). An act prohibiting teaching slaves to read. In *Racism and sexism: An integrated study* (pp. 91–92). St. Martin's Press.
- Russell-Brown, K. (2023). THE STOP WOKE ACT: HB 7, race, and Florida's 21st century anti-literacy campaign. NYU Review of Law & Social Change, 47, 225.
- SB266. (2023). Florida Senate Bill 266. https://www.flsenate.gov/Session/Bill/2023/266

- Schiffer, M., & Nuño, S. A. (2014). Mexican-American studies in Tucson, Arizona, and the Acosta v. Huppenthal decision. Mexican Law Review, 6(2), 299–308. https://doi.org/10.1016/S1870-0578(16)30016-6
- Schnur, J. (1991). *Desegregation of public schools in Pinellas County*. University of South Florida. https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=4002&context=fac-publications
- Singh, J., & Carter, S. (2023). States have added nearly 100 restrictive laws since SCOTUS gutted the

 Voting Rights Act. Brennan Center for Justice.

 https://www.brennancenter.org/our-work/analysis-opinion/states-have-added-nearly-100-restrictive-laws-scotus-gutted-voting-rights
- Sleeter, C. E. (2011). The academic and social value of ethnic studies. National Education Association. https://files.eric.ed.gov/fulltext/ED521869.pdf
- Sleeter, C. E., & Zavala, M. (2020). Transformative ethnic studies in schools: Curriculum, pedagogy, and research. Teachers College Press.

 https://www.nea.org/sites/default/files/2020-10/What%20the%20Research%20Says%20About%20Ethnic%20Studies.pdf
- Snyder, T. (1993). 120 years of American education: A statistical portrait. National Center for Education Statistics.
- Steelworkers v. Weber, 443 U.S. 193 (1979).
- Steinhauer, J. (2007). Confronting the ghosts of 2000 in South Carolina. https://www.nytimes.com/2007/10/19/us/politics/19mccain.html
- Stephenson, H. (2021, July 11). What Arizona's 2010 ban on ethnic studies could mean for the fight over critical race theory. Politico.

 https://www.politico.com/news/magazine/2021/07/11/tucson-unified-school-districts-mexican-american-studies-program-498926
- Students for Fair Admissions, Inc. v. President & Fellows of Harvard College, 600 U.S. 181 (2023).

- Students for Fair Admissions, Inc. v. University of North Carolina, 600 U.S. (2023). https://www.oyez.org/cases/2022/21-707
- Thompson, J. C. (1993). Toward a more humane oppression: Florida's slave codes, 1821–1861. *The Florida Historical Quarterly*, 71(3), 324–338. http://www.jstor.org/stable/30148217
- Tomberlin, J. A. (1974). Florida and the School Desegregation Issue, 1954–1959.
- Tolley, K. (2016). Slavery. In A. J. Angulo (Ed.), *Miseducation: A history of ignorance making in America and abroad* (pp. 13–33). Johns Hopkins University Press.
- USCCR. (2001). Voting irregularities in Florida during the 2000 Presidential election. https://www.usccr.gov/files/pubs/vote2000/report/main.htm
- van den Berghe, P. L. (1967). *Race and racism: A comparative perspective*. Wiley. https://archive.org/details/raceracismcompar0000vand
- Wade, C. (1987). The Fiery Cross: The Ku Klux Klan in American. Simon & Schuster.
- Walsh, S. (2023, February 15). Florida protest ban over African American studies course. UPI. https://www.upi.com/Top_News/US/2023/02/15/florida-protest-ban-african-american-studies-course/8861676513108/
- Wilson, G., & McBrier, D. B. (2005, June). Race and loss of privilege: African American/white differences in the determinants of job layoffs from upper-tier occupations. In *Sociological Forum* (Vol. 20, pp. 301–321). Kluwer Academic Publishers-Plenum Publishers.
- Wilson, W. J. (1980). *The declining significance of race: Blacks and changing American institutions*.

 University of Chicago Press.
- Wilson, W. J. (2012). *The declining significance of race: Blacks and changing American institutions*.

 3rd Edition. University of Chicago Press.
- Winsboro, I. G., & Bartley, A. W. (2014). When the stars fell from the sky: The desegregation of the University of Florida. *The Florida Historical Quarterly*, 93(2), 196–225. http://www.istor.org/stable/43488431

Wooten, T. (1972). The 1972 campaign. The New York Times. February 26, 2000.

Yang, P. (2000). Ethnic Studies: Issues and Approaches. SUNY Press.

Zeleny, J. (2023, February 14). *DeSantis: Florida's anti-woke warrior* [Video]. CNN. https://www.cnn.com/videos/politics/2023/02/14/desantis-florida-anti-woke-warrior-zeleny-d https://www.cnn.com/videos/politics/2023/02/14/desantis-florida-anti-woke-warrior-zeleny-d

Engaging Minds, Empowering Futures: AI's Role in Student Learning

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Abstract

Artificial Intelligence is no longer just a tool to allow companies to complete projects faster and more efficiently. It has been integrated into people's daily lives through the use of digital assistants, as it can answer any question one has at the touch of a finger or the sound of a person's voice. "History tells us that human is always looking for something faster, easier, more effective, and convenient to

finish the task they work on; therefore, the pressure for further development motivates humankind to look for a new and better way of doing things" (Tai, 2020, p.340). However, many questions begin to surface regarding artificial intelligence and its place in education. Some believe it is a useful tool for educators and students to use, as it can help simplify classroom management and breed self-confidence in students to perform at a higher level. Meanwhile, others feel artificial intelligence may be taken advantage of and used as a crutch to complete assignments and damage the development of soft skills needed for success in the workplace. In this article, the positive and negative effects of artificial intelligence in education will be explored. Furthermore, strategies on how to engage minds while exploring students' future with AI will be shared.

Key words: education, AI, artificial intelligence, education technology, gamification, student learning, student engagement

Introduction

Many people have been curious about AI. They have used a variety of prompts to help them complete simple tasks. From updating resumes to creating a meal plan, Artificial Intelligence has been a back-pocket tool to help remove taxing assignments from one's mental load. But how is it impacting fields such as education? The following research will address AI's impact on student learning and engagement.

The Origins of Artificial Intelligence

To understand the development of artificial intelligence over time, we must understand its origin and how it came to fruition. Artificial Intelligence is "...attributed to John McCarthy in 1955" who "defined AI as a machine that could behave as though it were intelligent" (Robinson, 2022, p.333). As scientists became more familiar with this technology and worked to see what its capacity is, AI has developed and sharpened the way it produces content and rapidly answers any given question. As this has taken place, scientists have found ways to integrate AI into our daily lives to provide simple solutions that have required complex research to accomplish this significant task. For example, researchers Tenhundfeld (et al., 2022) concluded through Mutchler's (2017) and Dubiel's (et.al. 2018) work that "since Apple released Siri in April of 2011, the prevalence of VPAs has increased with competitors like Amazon's Alexa, Microsoft's Cortana, and Google Assistant joining the fold. While the capabilities of such systems are ever-changing, they are most used for retrieving

general information, such as the weather forecast, playing music/videos, and even telling jokes" (p.1). Having these virtual assistants at our sides has seamlessly allowed AI to enter our lives and create subconscious roots in our society. Whether it is Siri, Alexa, Google Assistant, or more, the popularity of artificial intelligence through smartphone use or home technology has grown exponentially. These virtual assistants have undeniably extended their reach to a global scale and will only continue to find ways to connect with new people. Creators of such products have been able to generate this growth by adding these AI capabilities to items people require for daily living. Researchers Philipp Sprengholz and Cornelia Betsch (2022) have found through the studies done at Juniper Research (2019) "in recent years, an increasing number of people have started using virtual assistants on both mobile phones and home appliances, including smart speakers and smart televisions. As of 2019, more than three billion virtual assistants were available on devices worldwide. Forecasts suggest those virtual assistants will overtake the world population by 2023" (p. 1227-1228). Artificial intelligence is being incorporated into various appliances, including refrigerators, home security systems, thermostat systems, lighting, and more. As the rise of AI continues to spread, it is unsurprising that AI may impact other industries, such as the food and medical industries. For example, researchers Katharine Legun and Karly Burch have investigated the plan apple farmers have in place to implement AI into their apple-picking process. Legun and Burch (2021) state, "how apple growers are anticipating new robotic technologies intended to use artificial intelligence (AI) to automate aspects of the farm, paying particular attention to the ways that anticipation relates to preparatory assembling and reassembling of landscapes, work, and institutions" (p. 380) to continue providing quality crops while maintaining their efficiency. This research proves if the produce we find in the grocery store has found a use for artificial intelligence in their system works and promotes efficiency, it is fair to say AI has grown roots within society and has encouraged further longevity in its use.

Artificial intelligence has also changed the way the medical field operates. This was especially evident during COVID-19 when A1 was brought into the scene to encourage mask-wearing and monitor health statuses. This can be seen through researchers Xuebin Yue, Hengyi Li, and Lin Meng (2022), who presented "...an AI-based prevention embedded system against COVID-19 in daily life by keeping the function of the emergency method. The system consists of two functions, mask-wearing-status detection, and social-distance measurement. Mask-wearing-status detection employs YOLO and realizes the detection and classification of three mask-wearing-status, corrected-wearing, non-corrected-wearing, and without-wearing. Social Distance measurement equips a depth camera for measuring the distance between humans. The system gives an alert when people do not wear a mask correctly or do not keep their social distance" (p.152). This study itself demonstrates the power artificial intelligence can hold and how it has the power to correct human behavior and promote accountability amongst civilians. If AI can make a successful impact within society while dealing with a new disease and assist people in navigating their lives in such a confusing time, its value becomes greatly transparent.

AI's Introduction to Education

But what about AI's impact on Education? To understand how it has built the world of education, it is important to know the beginning of education and the effective teaching methods that were used before artificial intelligence. Researcher Isola Rajagopalan (2019) stated how "teaching is regarded as both an art and science. As an art, it lays stress on the imaginative and artistic abilities of the teacher in creating a worthwhile situation in the classroom to enable students to learn. As a science, it sheds light on the logical, mechanical, or procedural steps to be followed to attain an effective achievement of goals" (p.5). There is a fine balance teachers must reach to effectively lead their students. It requires a blended effort of the arts and sciences, and recognizing the needs of their students, which are all starkly different. An educator may have one group or class of students filled with multiple needs from learning disabilities, English learners, behavioral challenges, and more.

Finding effective processes that can meet the needs of these students is a large task filled with layers of complexity. In their research, Rajagopalan (2019) emphasizes the thoughts of Morrison (1934) and Dewey (1934), who stated, "Teaching is intimate contact between a more mature personality and a less mature one which is designed to further the education of the latter" (p. 5). As the students in the classroom and their needs evolved, so have the methods educators use in the classroom. For example, in the 1990s, teachers found effective ways to create this "intimate contact" as new technologies were being released and introduced into education. It was observed that "the industry went from CBT (Computer-Based Training) and rudimentary synchronous learning applications to sophisticated e-learning platforms that combined the best of both. Many argued the days of traditional learning were numbered and computers and the Internet would make teachers and classrooms obsolete". However, as e-Learning matures, the many significant benefits of these technologies are beginning to be realized and find their place as an adjunct to traditional, pedagogical approaches (Dunning et al., 2006, p.2). Computer-based programs thrived, providing students with a platform to learn practical skills that would enhance their future success. A variety of benefits exist by integrating technology into education, such as how it "...provides a practical, cost-effective foundation for lifelong learning which reshapes our notions of when and how we learn. —Learning on demand provides education tailored to solve an immediate and specific need for learning that is time sensitive" (Dunning et al., 2006, p.2). Finding solutions such as these through means of technology has allowed researchers and inventors to create new programs with more advanced technology, thus encouraging similar results. As we fast forward to the 21st century, it is incredible to see the tremendous growth within technology and how it impacts the classroom today.

Artificial intelligence has been introduced in a multitude of ways, including Grammarly, ChatGPT, and the development of merging AI into existing programs. Researchers Olaf Zawacki-Richter, Victoria I. Marín, Melissa Bond & Franziska Gouverneur (2019) state "according to various international reports, Artificial Intelligence in Education (AIEd) is one of the currently

emerging fields in educational technology. Whilst it has been around for about 30 years...artificial intelligence (AI) applications in education are on the rise and have received a lot of attention in the last couple of years" (p. 1)

Furthermore, Zawacki-Richter (et al., 2019) states, "AI and adaptive learning technologies are prominently featured as important developments in educational technology in the 2018 Horizon report (Educause, 2018, p.3), with a time to adoption of 2 or 3 years" (p.1). As artificial intelligence has been integrated into the classroom, it has evolved into an engaging resource for students to use through different educational games and programs. Although there proves to be value in joining artificial intelligence and education in one space, there are concerns about how it could impact student learning in the long run. How a student learns goes beyond their time in the classroom. It shapes the way they may decide to begin a project or influence their thought process behind planning. Without this practice, it is a concern about what is to become of future generations and the quality of life they may lead. For this reason, both perspectives regarding artificial intelligence, how it is being integrated into school districts, and how it could impact the field of education altogether must be investigated.

How AI helps Education

Teaching requires a balance between the arts and the sciences for education to be effective. Educators have been able to identify a way to create this balance even with the use of artificial intelligence. Artificial intelligence has impacted the way students learn by providing interactive programs that help them stay engaged with their learning and learn at a faster rate. This is evident in the research performed by Inmaculada García-Martínez, José María Fernández-Batanero, José Fernández-Cerero, and Samuel P. León (2023) who have "identified that the different EAI modalities not only affect the quantity of what students learn, but also lead to higher levels of motivation, which is demonstrated by a greater willingness to be involved in their learning" (p.188). Educators need to know how to choose tools to enhance their students' learning experience and provide resources to

expand their education. Programs with integrated artificial intelligence must have the ability to keep students' attention and give them the intrinsic desire to continue learning for their own gratification. It is a universally recognized fact among educators that getting students to this point of consistent motivation can be difficult. In fact, this lack of motivation can result in a reduction in learning outcomes and a negative atmosphere in the classroom. Moreover, although "...standardized outcome assessments have been widely used to evaluate learning and inform policy...the critical question on how scores are influenced by students' motivation has been insufficiently addressed" (Liu et al., 2012, p.352). How are educators addressing this challenge today?

Researchers Alf Inge Wang and Rabail Tahir (2020) found in Butler's (1992) and Murray's (1991) studies "educational research has shown that students who are actively involved in the learning activity will learn more than passive students" (p.1). It is understood the more involvement a student has in their learning, the more engaged they will be in class. Therefore, the use of technology and artificial intelligence within the classroom will increase the hope of positive results. Recent studies have not disappointed, as they have reflected an uptick in student engagement and participation. This has been accomplished using many educational programs providing interactive games powered by the capabilities of artificial intelligence. Kahoot is one example that has been an integral game combining games with student learning, and "it is among the most popular game-based learning platforms, with 70 million monthly active unique users and used by 50% of US K-12 students" (Wang and Tahir, 2020, p.1). By blending a competitive format where students are motivated to win first place, students get the opportunity to prove what they know and do so in a stimulating way.

Additionally, Wang and Tahir (2020) found in Fotaris'(et al., 2016) work when quantifying the impact of integrating games such as Kahoot into the classroom, "the results revealed many positive effects for the gamified approach, including improved class attendance, less late arrivals to class, higher downloads of course material, improved classroom dynamics, and higher final grade

(61% for gamified vs. 53% for traditional)" (p.8). Kahoot encourages students to take the reins in their learning and supports teachers in creating a resource to fit the needs of each student. Studies have found "artificial intelligence (AI) systems offer effective support for online learning and teaching, including personalizing learning for students, automating instructors' routine tasks, and powering adaptive assessments" (Seo et al., 2021, p.1). Students and teachers can familiarize themselves with the power of AI by exploring the Kahoot feature to "...search any topic in the Kahoot! creator and [their] generative AI will automatically create Kahoot questions matching your chosen topic" (Kanaris et al., 2023, p. 1). Integrating this function encourages students to expand their horizons and use new forms of technology to guide their learning. Overall, results such as these should not be overlooked, accompanied by the support it provides for students and teachers.

Another important way to view artificial intelligence in education is to reflect on the ways it serves as a guiding post for students when beginning a new task. The biggest obstacle students face in school is getting started. If a student does not understand how to begin a task or feels overwhelmed by the idea of it, they may become discouraged before even starting. As stated by researchers Manuela Ferreira, Ana Paula Cardoso, and José Luís Abrantes (2011), "Motivation should be seen as a very important factor in the learning process. The motivated student has the inner strength to learn, to discover and capitalize on capabilities, to improve academic performance, and to adapt to the demands of the school context" (p.1707). Educators can use these programs to help their students build positive self-esteem in the classroom and show them they can complete a challenge successfully and increase their motivation for learning. For this reason, artificial intelligence can prove to be of tremendous value because it can help to increase student confidence and give them a strong springboard to leap into new possibilities.

Additionally, it is important to reflect on the ways artificial intelligence has helped educators to create simple routines, allowing them to be more organized and begin their day with clarity over chaos. It is no surprise educators have a challenging job as many times with limited resources, time,

and support. It can be a large task to manage seamlessly, as the variety of students who come with their own specific needs. Apart from using artificial intelligence to support student needs, it can also help educators save time when creating resources. By using AI to help in creating interactive games, tests, etc., teachers can put greater focus on building positive relationships with their students and building engaging lessons for the classroom. In order to take advantage of these resources though, it is important teachers "... learn how to use appropriate AI-driven technologies such as adaptive learning systems and intelligent agents to facilitate their daily teaching management and practices to collaborate with different parties (e.g., parents, colleagues), enhance personalized learning to understand students' learning progress and needs, and conduct various tasks such as offering automatic feedback, self-diagnosing, and promoting online collaboration among learners "(Ng et al.,2023, p.143). Teachers cannot expect to use artificial intelligence in their lessons with students if they are not familiar with the technology themselves. There are multiple benefits to using AI, but it is clear that "despite these educators' positive expectations of AIED, researchers have indicated that before adopting AI in the classroom, teachers first need to learn how to use technology and, most importantly, how to successfully integrate it into their curricula" (Ju et al., 2022, p.4). Doing this further emphasizes how artificial intelligence and education complement one another and not only assist students in their educational journey but also widen the skills of their educators. This is vital as the classroom and the needs of its students will only continue to evolve. Ultimately, being informed about artificial intelligence and its capacities within the classroom can allow educators to be better equipped to reach their students' needs and influence the making of more confident and well-rounded students.

How AI wounds Education

How might artificial intelligence cause a disservice to the field of education? There is a plethora of concerns as to how it could negatively impact students and what it could mean for educators in the future. One of the biggest concerns lies in the power of ChatGPT. Introduced in

November 2022, Temsah, et al., (2023) defined through Adamopoulou and Moussiades' (2020) and Jin and Kruppa's (2022) research ChatGPT as "...a new artificial intelligence platform created by OpenAI... this artificial intelligence chatbot uses a neural network machine learning model and generative pre-trained transformer (GTP) to pull from a significant amount of data to formulate a conversation-style response in various written content, for a multitude of domains, from history to philosophy, science to technology, banking, marketing, entertainment, in the form of articles, social media posts, essays, computer programming codes and emails" (p.1).

This technology is incredibly advanced, and its capabilities are endless. Although this shows growth within the technology community, it also poses a threat to authenticity within Education. Because of the way it is attuned to creating human-like responses, it may be difficult to decipher what original work is created by a student versus an assignment completed using ChatGPT for the entirety of the project. Rather than acting as an aide to students, artificial intelligence can encourage inactivity and cause students to view AI as a resource that does their work for them. This creates a potential danger for AI to take away important skills students need to learn through experience and begin a negative ripple, affecting student development.

If students are relying on this technology for their success, how might this impact on their self-confidence and ability to self-empower? Zhao, et al., (2021) found through Rosenberg (1965) who stated, "Self-esteem is the evaluation of an individual's beliefs and attitudes toward his or her abilities and values" (p.2). As students develop, so do their personality and sense of self. Furthermore, Zhao, et al., (2021) discovered "Self-esteem during adolescence tends to be unstable, because of the many changes occurring in the adolescents' roles and responsibilities. Self-esteem tends to decline in early adolescence and recover in the middle and later stages of adolescence (Trzesniewski et al.,2003). Adolescents with high levels of self-esteem tend to experience positive self-experiences (Peng et al., 2019), high-quality interpersonal relationships (Cameron and Granger, 2019), and better physical and mental health (Li et al., 2010, p. 2).

When a student has the ability to create something with their own hands, it builds a sense of pride and accomplishment. Losing this opportunity and relying on artificial intelligence to complete an assignment could bring feelings of guilt and shame. If a student does not feel competent to complete an assignment, they may resort to using artificial intelligence and not completing the assignment.

This could lead to another danger, potentially impacting a student's credibility and success in school and the workplace. This danger would be plagiarism. Recent studies have noted "detecting fabrication... is difficult since the work is completely made up and falsified, not plagiarized from other authors. In relation to artificial intelligence (AI), determining whether a piece of writing was fabricated and plagiarized from an AI-based technology presents a challenge to researchers" (Elali & Rachid, 2023, p.1). Technologies such as EasyBib and Grammarly exist to detect direct plagiarism, but with artificial intelligence in the mix now, it becomes difficult to decipher if a student has created authentic work altogether. Although this poses a threat to the education industry it is important to understand "utilizing an AI for research is not an inherently malicious endeavor" (Elani & Rachid, 2023, p.2) and can be useful to "[ask] an AI to grammar-check work or write a conclusion for legitimate results found in a study are other uses an AI may incorporate into the research process to cut out busywork may slow down the scientific research process" (Elani & Rachid, 2023, p.2). Through further research though it has become evident "the issue arises when one utilizes data that are not existent to fabricate results to write research, which may easily bypass human detection and make its way into a publication. These published works pollute legitimate research and may affect the generalizability of legitimate works" (Elani & Rachid, 2023, p.3). Students need to consider the impact using AI could have on their lives. Conforming to this new technology could put them at risk for potential plagiarism, especially when students find themselves in a vulnerable time in their lives. Mental health is defined as "... a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It is an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in" (World Health Organization, 2022, p.1). When the balance is disrupted, it can cause an individual to say or do something uncharacteristic of them. It is clear "educators recognize that AI can automatically produce output that is inappropriate or wrong. They are wary that the associations or automations created by AI may amplify unwanted biases. They have noted new ways in which students may represent others' work as their own" (US Department of Education, 2023, p.1-2). Therefore, learning the risks of using such programs is vital for students so they do not put their education or reputations on the line and find themselves in irreversible circumstances.

Furthermore, artificial intelligence in education poses concerns about the future of educators and whether there will be a time when in-person teaching is a thing of the past. The COVID-19 pandemic impacted every person on a global scale. Every element regarding daily living such as work, and school was impacted greatly. During this time, many students and parents were concerned about how schools would pivot to continue providing education during these circumstances. Many school districts turned to online school options to provide quality learning for students while still upholding social distance protocols. This distance learning forced schools to integrate new technologies into their programs and provide options for students where they could continue their schooling in a safe environment. This has opened multiple discussions about what education will look like within the next few years.

For example, researcher D.T.K. Ng et al. (2023) confirmed through Kexin, et al., (2020) "artificial intelligence in education (AIED) technology has gained its popularity during the pandemic. Studies have started discussions on how AI reshapes education to reduce teachers' workload by automating some non-teaching related tasks, enhancing data analysis and optimizing online teaching" (p.137) Because of the capabilities AI has, we may wonder if in-person teaching will become a dying practice. To answer this concern, a notable statement from Ng, et al., (2023) says "a major part of

teachers' responsibilities is to create meaningful learning environments to deepen students' learning experiences and boost their capacities" (p.138). So, although AI can act as support for educators in the classroom, it is premature to conclude if it will outrun the need for real teachers, but it is not an impossible idea.

Goals and Complementary Teaching Methods

The overall goal of sharing this research is to inform and educate on what artificial intelligence is and the perspectives that are shared regarding AI in Education. In our ever-changing world, it is important to be educated on matters such as these because it allows students to know what they can expect in their classroom and the potential technology they will need to be familiar with to find success in school and beyond. Many times, students are under the impression that what they learn in the classroom will not be of much use in a professional environment. This is exemplified by researcher Ville Bjork(2018), who mentions how "while on work placements, university students are sometimes told that their on-campus training has no concrete use in the 'real world'. This instance of the idea of academia and the real world illustrates how this idea encourages students to believe on-campus training is irrelevant in working life. In so doing, this idea creates a gap between what students' 'study' on campus and what they 'do' at work placements known as the academic-real world gap or the theory-practice gap' (p.1).

This can be discouraging because students would expect to learn lessons to set them up for success and prepare them for life after school. Despite this concept, students should not feel deflated. When a recent graduate is starting a new position and finds themselves in new and unchartered territory, they have only one option to keep their head above water which is to use the skills and resources they are familiar with to help keep them afloat. Creating some form of a foundation for themselves will act as a catalyst for the students to spring from. Overall, this will encourage growth as they learn new skills within their job to better equip them for success as a professional. But the only way this can be accomplished is for students to be given a base—to be given resources they can

rely on before being put in these circumstances. For many students, this opportunity is given primarily in school. This is not to say a student would be forced to recall how to use the Pythagorean Theorem or know the powerhouse of a cell, rather it is specific hard and soft skills a student has learned in school will have a tremendous impact in the workplace. For example, practicing skills such as time management, public speaking, and essay writing may help with a recent graduate's first work project, presentation, and ability to provide a good first impression. Gaining exposure in school to different technologies and inventions such as artificial intelligence gives students a chance to understand the programs they may be working with in the future and assist them in building success.

Educators must do their best to introduce artificial intelligence into their classrooms as a helpful resource, but must teach their students how to use it effectively. There are a variety of reasons for artificial intelligence to be helpful but the programs and lessons implementing AI must have a surrounding sense of relevancy to keep students motivated. This is evident in Central Michigan University's Josh Lukkonen (2003), who states, "the students themselves must have some investment into the lessons you are planning/using" (p. 53). If a student is not able to make a connection between what they are learning and how it could benefit them inside and outside of the classroom, the impact made could be meager. Recent studies conducted by "...the Proceedings of the National Academy of Sciences, [show], though students felt as if they learned more through traditional lectures, they actually learned more when taking part in classrooms that employed so-called active-learning strategies" (Reuell, 2019, p.2). Active-Learning strategies are defined as "methods [which] ask students to engage in their learning by thinking, discussing, investigating, and creating. In class, students practice skills, solve problems, struggle with complex questions, make decisions, propose solutions, and explain ideas in their own words through writing and discussion" (Cornell University, 2023, p.1). The skills developed through these strategies are one's artificial intelligence attempts to mimic natural intelligence. This should increase awareness in educators who use artificial intelligence in the classroom, but understand the critical skills needed to be learned by students.

If this is accomplished, students can learn more and will find greater value in their time spent at school while still broadening their familiarity with modern technology. A recent survey revealed "...the average educated American forgets about 40% of what they learned [in school] and uses just 37% of the knowledge and skills in their everyday lives on average" (Renner, 2019, p.1). With the implementation of new learning methods and understanding of the responsibility that belongs to educators, the percentage of valued learning can undoubtedly increase over time. Students may not always remember the topic at hand, but they will retain the skills they learned behind a certain lesson, especially if relevancy is kept at the forefront of learning. Overall, using these methods can act as a bridge between those who believe in the power of AI in Education and those who fear it.

Summary

So, what is the impact of artificial intelligence on Education? As stated at the beginning of this paper, it has helped students to be more engaged in the classroom and become technologically savvy. The more practice students receive with these technological advancements now, the more they will be able to thrive and better perform in the future when these technologies are part of their daily routines. On the other hand, through the following research, it is clear artificial intelligence does have repercussions as well in how it can impact students and their education. For example, resources such as Chat GPT may encourage plagiarism and discourage students from completing their work. This can prompt laziness and the inability to start and complete a task or project, which is an essential skill to maintain to find success in anything a future student does. This is a skill that will not only help students in the academic and corporate world, but it is also a quality that can help students when making big life decisions. Having the grit and perseverance to complete a task from start to finish independently is no mission to easily conquer. You cannot consistently rely on an artificial intelligence program to create constant decisions for you. Additionally, relying on these products to do one's work for them can stunt creativity and the ability to bring a person's idea or dream to fruition. As previously discussed in this paper, it is evident if artificial intelligence is taken advantage

of and begins to replace natural intelligence from humans, this could put current and future students in danger. As the future leaders of our society, it is imperative students practice decision-making and express their needs effectively. If technology is relied on too much, what is to be determined of society's status in the future? Teachers must use their role of power and influence to guide students in seeing the way artificial intelligence has its place in society. AI is an intuitive and important tool to know how to use, but it should never be viewed as a replacement for natural intelligence.

References

Adamopoulou, E., & Moussiades, L. (2020). *Artificial Intelligence Applications and Innovations:*16th IFIP WG 12.5 International Conference, AIAI 2020, Neos Marmaras, Greece, June 5–7,
2020, Proceedings, Part II (L. Iliadis & E. Pimenidis, Eds.). Springer International Publishing. https://doi.org/10.1007/978-3-030-49186-4 31

- Björck, V. (2018). The idea of academia and the real world, and its ironic role in the discourse on Work-integrated Learning. *Studies in Continuing Education*, 42(1), 1-16. Taylor & Francis Online. https://doi.org/10.1080/0158037X.2018.1520210
- Butler, J. A. (1992). Use of teaching methods within the lecture format. *Medical Teacher*, 14, 11-25.
- Cameron, J. J., & Granger, S. (2019). Does self-esteem have an interpersonal imprint beyond self-reports? A meta-analysis of self-esteem and objective interpersonal
- Cornell University. (2023). *Active Learning* | *Center for Teaching Innovation*. Center for Teaching Innovation. Retrieved December 8, 2023,

 https://teaching.cornell.edu/teaching-resources/active-collaborative-learning/active-learning
- Dubiel, M., Halvey, M., & Azzopardi, L.(2018) "A survey investigating usage of virtual personal assistants". edu/~/media/files/library/2018/8/2018horizonreport.pdf
- Dunning, K., Dunning, J., Bhattacharya, S., & Daniels, D. (2006). Virtual learning worlds as a bridge between arts and humanities and science and technology. *Forum on Public Policy*, *I*(1), 1–23. https://files.eric.ed.gov/fulltext/EJ1099038.pdf
- Educause. (2018). Horizon report: 2018 higher education edition. Retrieved from EDUCAUSE

 Learning Initiative and The New Media Consortium website:

 https://library.educause.edu/~/media/files/library/2018/8/2018horizonreport.pdf
- Elali, F. R., & Rachid, L. N. (2023). AI-generated research paper fabrication and plagiarism in the scientific community. *Patterns*, *4*(3), 1–4. *Science Direct*. https://doi.org/10.1016/j.patter.2023.100706
- Ferreira, M., Cardoso, A. P., & Brantes, J. L. (2011). Motivation and relationship of the student with the school as factors Involved in the perceived learning. *Procedia Social and Behavioral Sciences*, 29(1), 1707-1714. https://doi.org/10.1016/j.sbspro.2011.11.416.

- Fotaris, P., Mastoras, T., Leinfellner, R., & Rosunally, Y. (2016). Climbing up the leaderboard: An empirical study of applying gamification techniques to a computer programming class. *Electronic Journal of e-learning*, 14(2), 94-110
- García-Martínez, I., Fernández-Batanero, J., Fernández-Cerero, J., & León, S. (2023). Analysing the impact of Artificial Intelligence and computational sciences on student performance: Systematic review and meta-analysis. *Journal of New Approaches in Educational Research*, 12(1), 171-197. doi:https://doi.org/10.7821/naer.2023.1.1240
- Jin, B., & Kruppa, M. (2022). *The Backstory of ChatGPT Creator OpenAI*. WSJ. Retrieved January 29,

 https://www.wsj.com/articles/chatgpt-creator-openai-pushes-new-strategy-to-gain-artificial-int elligence-edge-11671378475
- Ju, K. N., & Kyu, K. M. (2022). Teacher's perceptions of using an Artificial Intelligence-Based educational tool for scientific writing. *Frontiers in Education*, 7(ISSN=2504-284X), 1-13.
 Frontiers In. DOI=10.3389/feduc.2022.755914
- Juniper Research. (2019). *Digital Voice Assistants*.

 http://www.juniperresearch.com/researchstore/innovation-disruption/digital-voice-assistants
- Kanaris, D., Framstad, L., & Narveson, C. (2023). *Unlock the power of AI in your classroom with Kahoot!'s new question generator!* Kahoot! Retrieved January 29, 2024, from https://kahoot.com/blog/2023/06/06/kahoot-ai/
- Kexin, L., Yi, Q., Xiaoou, S., & Yan, L. (2020). Future education trend learned from the Covid-19 pandemic: Take artificial intelligence online course as an example. In 2020 International Conference on Artificial Intelligence and Education (ICAIE) (pp. 108–111). IEEE.
- Legun, K., & Burch, K. (2021). Robot-ready: How apple producers are assembling in anticipation of new AI robotics. *Journal of Rural Studies*, 82(1), 380-390. https://doi.org/10.1016/j.jrurstud.2021.01.032

- Li, H. C. W., Chan, S. L. P., Chung, O. K. J., & Chui, M. L. M. (2010). Relationships among mental health, self-esteem and physical health in Chinese adolescents: An exploratory study. *Journal of health psychology*, *15*(1), 96-106.
- Liu, O. L., Bridgeman, B. & Adler, R. (2012). Measuring learning outcomes in higher education. *Educational Researcher.* 41. 352-362. 10.3102/0013189X12459679.
- Luukkonen, J. (2003) "Relevancy in the classroom: Bringing the real world into school," *Language Arts Journal of Michigan*: 19:(1).
- Murray, H.G. (1991). Effective teaching behaviors in the college classroom. In *Higher Education: Handbook of Theory and Research* (pp. 135-172). Agathon Press.
- Mutchler, A. (2017) "Voice assistant timeline: A short history of the voice revolution", [online] Available:
 - https://www.voicebot.ai/2017/07/14/timeline-voice-assistants-short-history-voice-revolution.
- Ng, D.T.K., Leung, J.K.L., Su, J., Ng, R.C.W., Chu, S.K.W. (2023) Teachers' AI digital competencies and twenty-first century skills in the post-pandemic world. *Education Tech Research Dev* (71), 137–161. https://doi.org/10.1007/s11423-023-10203-6
- Peng, W., Li, D., Li, D., Jia, J., Wang, Y., & Sun, W. (2019). School disconnectedness and adolescent internet addiction: Mediation by self-esteem and moderation by emotional intelligence. *Computers in Human Behavior*, *98*, 111-121.
- Rajagopalan, I. (2019). Concept of teaching. *International Journal of Education*, 7(2), 5-8. Shanlax. https://doi.org/10.34293/education.v7i2.329
- Robinson, W.K., (2022) "Enabling Artificial Intelligence." *Houston Law Review*, 60, (2), 331–62. *EBSCOhost*,
 - <u>search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&db=a9h&AN=161389100&site=eds-live.</u>

- Rosenberg, M. (1965). Society and the Adolescent Self-Image. Princeton, NJ: Princeton University Press.
- Reuell, P. (2019). *Lessons in Learning*. The Harvard Gazette.

 https://news.harvard.edu/gazette/story/2019/09/study-shows-that-students-learn-more-when-ta-king-part-in-classrooms-that-employ-active-learning-strategies/
- Renner, B. (2019). Survey: Average American uses just 37% of knowledge, skills learned in high school. Study Finds. Retrieved December 8, 2023, from https://studyfinds.org/survey-americans-use-37-percent-knowledge-learned-high-school/
- Seo, K., Tang, J., Roll, I., Fels, S., & Yoon, D. (2021) The impact of artificial intelligence on learners–instructor interaction in online learning. *Int J Educ Technol High Educ* 18, 54. https://doi.org/10.1186/s41239-021-00292-9
- Sprengholz, P. & Betsch, C. (2022) Ok Google: Using virtual assistants for data collection in psychological and behavioral research. Behavior Res Methods.54(3):1227-1239. doi: 10.3758/s13428-021-01629-y. Epub 2021 Sep 10. PMID: 34508287; PMCID: PMC8432958.
- Tai, M. C. (2020). The impact of artificial intelligence on human society and bioethics. *Tzu Chi Medical Journal*, 32(4), 339–343. https://doi.org/10.4103/tcmj.tcmj_71_20
- Temsah, O., Khan, S.A., Chaiah, Y., Senjab, A, Alhasan, K., Jamal, A., Aljamaan, F., Malki, K.H., Halwani, R., Al-Tawfiq, J.A., Temsah, M.H., & Al-Eyadhy, A. (2023) Overview of early ChatGPT's presence in medical literature: Insights from a Hybrid Literature Review by ChatGPT and Human Experts. doi: 10.7759/cureus.37281. PMID: 37038381; PMCID: PMC10082551.
- Tenhundfeld, N. L., Barr, H.M., O'Hear, E.H., & Weger, K. (2022) "Is my Siri the same as your Siri?

 An exploration of users' mental model of virtual personal assistants, implications for trust."

 IEEE Transactions on Human-Machine Systems, Human-Machine Systems, IEEE

- Transactions on, IEEE Trans. Human-Mach. Syst, 52, (3) 512–21. EBSCOhost, ttps://doi-org.ruby.uhv.edu/10.1109/THMS.2021.3107493.
- Trzesniewski, K. H., Donnellan, M. B., & Robins, R. W. (2003). Stability of self-esteem across the life span. *Journal of personality and social psychology*, 84(1), 205.
- U.S. Department of Education, Office of Educational Technology, (2023) Artificial Intelligence and future of teaching and learning: Insights and recommendations, Washington, DC.
- Wang, A. I., & Tahir, R. (2020). The effect of using Kahoot! for learning A literature review,.

 *Computers & Education, 149(103818), 1-22.
- World Health Organization. (2022). *Mental health*. World Health Organization (WHO). Retrieved January 29, 2024,
 - https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response
- Yue, X., Li, H., & Meng, L. (2022). AI-based prevention embedded system against COVID-19 in daily life. *Procedia Computer Science*, 202(1), 152-157. Science Direct. https://doi.org/10.1016/j.procs.2022.04.021.
- Zawacki-Richter, O., Marín, V.I., Bond, M., & Gouverneur, F. (2019) Systematic review of research on artificial intelligence applications in higher education where are the educators? *Int J Educ Technol High Educ* 16, 39 https://doi.org/10.1186/s41239-019-0171-0
- Zhao, Y., Zheng, Z., Pan, C., & Zhou, L. (2021). Self-esteem and academic engagement among adolescents: A moderated mediation model. *Frontiers in Psychology*, 12(1), 1. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.690828/full

Understanding the Lived Experiences of Black Americans at the Hands of the Healthcare System

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Abstract

We set out to examine the lived experiences of Black Americans and how implicit bias may affect their ability to access Healthcare in the US. We followed an Interpretive Hermeneutics approach to explore

the life world of seven Black Americans. Semi structured interviews were used to explore topics of healthcare access, healthcare equity bias, and racism. Themes of "iatrophobia" (fear of the

healthcare system and providers), "invisible social conformity" (feeling the need to "hide" one's race), "intersubjectivity" (the influence of childhood experiences), "racial inferiority" (feeling "less

than" due to race), "geographic racial bias" (different experiences of bias based on geographical location) and "racial dichotomy" (the struggle to find providers of the same race) were found. This

work provides insight in the lived experiences of Black Americans and the need to improve both

access to, and the quality of, care provided for minority patients.

Key Words: implicit bias, healthcare

Introduction

"Of all the forms of inequality, injustice in healthcare is the most shocking and inhumane."

Dr. Martin Luther King's words stand as true today as they did in his speech in Chicago in 1966.

Implicit or unconscious bias is generally acknowledged across many facets of society in the

United States in 2023. It is recognized as a contributing factor to health disparities by the American

Academy of Family Physicians and is defined as "the attitudes or stereotypes that affect our

understanding, actions, and decisions in an unconscious manner" (Academy of Family Physicians,

2018) Ongoing racial health disparities have been described as "the most serious and shameful health

care issue of our time." (Feldman, 2015).

A recent poll of 777 Black Americans noted that unconscious bias is a major barrier in their

lives (Washington, 2023). With the body of research that demonstrates the existence of implicit bias

in the general population across nearly all strata of society, and most all population groups (James,

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Klinger & Vila, 2014; Fitzgerald, & Hurst, 2017), it is reasonable to assume that healthcare workers would exhibit these same biases (Shepherd, 2011; Greenwald, Banaji & Nosek, 2015). A growing body of research (Bleich, Et al., 2019; Feagin, & Bennefield, 2014; Poulson, Et al., 2021; Umeukeje, & Young, 2019;) has uncovered disparities in our healthcare system—from medical education (Louie & Wilkes 2018) to patient care (Kuppachi 2020).

Demonstrating existing issues of bias in healthcare, there is the concern of medical texts using images of White skin to demonstrate wounds, changes in skin tone, and as a teaching modality for skin assessment. More than 75% of examples of skin tone in modern texts are of White or light-skinned patients; thus, leaving dark-skinned patients at a distinct disadvantage with new medical professionals who may not recognize the more subtle changes findings in Black and Latinx skin tones (Louie & Wilkes 2018).

Impaired patient-provider trust has been demonstrated as a significant factor associated with implicit bias, as the patient may not feel they have an open channel of communication with their provider if the provider makes stereotypical assumptions about them. Patients will 'pick up' on variations in body language, word usage or tonality that can, to the patients' perspective, come across as biased (Gonzalez, et al., 2018). This disparity may lead to subtle, but critical, failures in communication resulting in a broken provider-patient relationship with downstream consequences of poor health outcomes.

A review of the current literature identified 39 papers that examined the role of implicit or explicit bias in the healthcare system and means to address them: twenty-five of these manuscripts were quantitative in nature, examining bias through a statistical lens; eight manuscripts were mixed-method approaches, offering some insight into the issue of bias from the Black American perspective; and six were 'expert opinion' pieces, delivering ideas and frameworks for improving health outcomes as related to bias.

With notable exceptions (see Gonzales, 2018), qualitative research exploring the impact of bias in healthcare on Black Americans is limited. The current paper fills a gap in the research by documenting the lived experience of Black Americans regarding implicit and explicit bias in the US healthcare system. This paper adds to the scientific literature through an increased understanding of the *impact* of bias in healthcare on the daily lives of Black Americans, as well as an increased understanding of the *nature* of bias in healthcare. This understanding can be used to increase the equity of healthcare delivery for Black Americans, as well as driving the development of more thorough and comprehensive training modalities to bring biases to light in the healthcare system.

Methodology

The methodology used for this study was a 'hermeneutic' or interpretive approach; focusing on a desire to understand the phenomenon as it exists for the research participant. To achieve this, researchers must first suspend their assumptions, judgements and beliefs, a term known as 'bracketing'. As Black Americans describe their experiences with the healthcare system, this method allows the researchers to document those real-world experiences without imposing their own meaning on the narrative.

Seven Black Americans, ranging in age from 24 to 58, were recruited for this study. There were 3 females and 4 males, each of whom were asked to choose a pseudonym so as to remain anonymous. Semi-structured interviews were conducted via Zoom, at a time convenient to the participants. Interviews were conducted with open-ended questions, encouraging each participant to provide as much detail as possible when answering questions, with follow-up questions posed to further clarify any points that were raised. Topics ranged from issues of bias in their daily lives; specific incidents of bias as they interacted with healthcare providers; concerns around verbal and non-verbal communication with healthcare providers; how non-verbal communication impacted an individual's perception of care; and general expectations of the patient-provider relationship from the Black American perspective.

All interviews were recorded and transcribed verbatim, along with any notes taken during the interview. The transcripts were then analyzed using a phenomenological approach, allowing the researchers to focus on the lived experiences of each participant and describe issues of implicit and explicit bias in the healthcare system from the Black American perspective. The researchers did not seek to stratify the themes developed, rather treating all themes of equal importance while frequently rechecking their understanding of the data. This insured that the researchers' interpretation of the data was an accurate reflection of the participants' experience. The authors attempted to bracket their own understanding of the participants experiences, while also recognizing that current findings are interpretation and, thus, could be seen differently by other researchers.

Interviews were reviewed in a hermeneutic circle. Interviews were reviewed by experts in implicit bias, healthcare delivery experts, and an historian who specializes in the history of bias against Black Americans.

This study was approved the by WSU IRB review board. Participants signed informed consent and all interviews were conducted via Zoom to adhere to safety and public health protocols.

Results

During the analysis, several themes emerged. The first was Intersubjectivity: that every individual is influenced by their family, friends, acquaintances, and culture. This is, then, a key tenant of the lifeworld as experienced by the participants. While not directly related to the delivery of healthcare for Black Americans, the notion of intersubjectivity was seen as a significant contribution to the second theme, as many of the participants expressed a familial or culturally engrained distrust of healthcare providers. The second theme was Iatrophobia: the intense fear of medical providers. This was essential to the lifeworld of Black Americans interacting with the healthcare system. The third theme was Invisible Social Conformity: the perceived need to hide one's racial identity in order to 'conform' to the dominant social order. Again, this was identified as an essential aspect of the lifeworld for Black Americans as they move through a White-dominant society. The fourth theme

was **Racial Inferiority**: a general feeling of being "less than" their peers based upon skin color. The fifth theme was **Geographic Racial Bias**: greater bias was noted in differing geographic regions of the US. The last theme was **Racial Dichotomy**: participants noted the difficulty in seeking care from providers who 'look like them'.

Intersubjectivity

The first theme of *intersubjectivity*, referring to the experience of relationships with other people, was noted when talking about the influence of family in the participants' lives and development. Iruka (2013) noted the importance of family in the Black community, not only for personal and social growth and development, but as a critical aspect to the success of Black youth and children as they make their way through vulnerable adolescence. While most participants noted the influence of family and friends in their lives, four of them had very strong comments about the matter.

Exemplifying the importance of family to development and success was Dawg, a former college and professional athlete, who retired from football and moved into Law Enforcement. This created a bit of a dichotomy from his early life as he had grown up around gangs and violence, only escaping the same fate due to the influence of his strong mother and aunt. He shared that many of his cousins were involved in the gang violence of his youth: selling drugs, violence and intimidation, even to the extent of being injured in shootings. These cousins would often seek refuge at this mother's home, knowing the importance of 'family' and the safety that this refuge would provide.

"...my cousins' lives were very different, that were involved with gangs. Several times my mom being a strong neighborhood woman, Black woman, people would come to her for help. You know, when somebody got shot or somebody got killed, they would reach out to her, so there have been times where cousins of mine would be wounded or injured from gang skirmish and would come to the house."

Dawg spoke warmly of his family and his childhood. Smiling as he recounted the 'adventures of his youth' and the comforting presence of his mother and "Auntie". He noted how he was encouraged to excel in sports and academics, to find a better life for himself (and his brothers) so as to avoid the 'gang life'. This happy and gregarious man would become withdrawn when he began to reflect on the racial inferiority he had faced from his childhood well into his adulthood.

Much like Dawg, Black Hammer noted that family may involve experiences outside the 'norm' for most Upper Middle class White Americans. He stated that many of his cousins 'lived a different life than me' growing up in a more urban setting, intimating that some of his family members were involved in gang activity while he was raised in a suburban environment and sheltered from much of the illegal trappings that his cousins deal with. The influence of his experiences with his cousins shaped his idea of race and race relations. It was from this (and other) childhood experiences that Black Hammer began to develop a general mistrust of healthcare providers.

"That was an interesting experience growing up. And I'd say it was somewhat of a sheltered life, if you will... In the fact that was more of a suburban, urban environment versus city. A lot of family that lived in (redacted), and their, uh, their, their upbringing was a lot different than mine. My cousins on the other hand, when interacting when they'd come over it was very 'white, black, this, that, The Man'." Black Hammer noted that his experiences in childhood had impacted his desire to seek healthcare as an adult. "As far as healthcare is concerned, to be perfectly honest, I don't go to the hospitals much. That probably stems from my childhood, but I don't go if I don't have to. I'm going to be on my deathbed."

Jordan is a professional model and businessman, a former athlete in college and part time professional trainer. He was raised in a mixed-race household, having come through very traumatic years as a child until he finally found stability in a suburban 'all White' neighborhood. He described the opportunity to reunite with family that he had long been separated from and found that a large part of what was missing in his life, a void that he didn't know needed to be filled, was now

complete. "When I was able to go back and see them (Black family members: biological father, cousins and extended family members), there were a lot of tears that were shed, because I realized that I missed out on so much just from not being on that side of my Black family. But I really, really loved where I was at, because I had my brother, right? And I was with my older brothers as well. I got to do a lot, but I just felt like there was a lot that I missed out on."

Jordan expressed a general desire to seek healthcare from 'where the White people go', as a result of his experiences growing up and coming to understand that, in his experience, healthcare in 'Black neighborhoods' was lacking. This understanding was driven by his experiences as child and influence of his family and peers who had a general distrust. "But going through this medical procedure, was kind of funny is because a couple places out here that I was very reluctant to go to just because I heard horror stories." His peers and friends had described the availability of care in his neighborhood as inadequate, Jordan stated that he sought out care elsewhere "So I went to the Upper East Side, where most White people go to get things done."

Pimp Juice is a reformed felon, with two convictions on drug and gun charges, stemming from his youth and the violence that plagued his neighborhood. He has since had those charges expunged and is a strong and productive member of society. Now a successful author and working in social services, he has spent much of his adult life working with others to help get their lives turned around and avoid the difficulties that he, himself, had to face. He shared his notion of 'family' as not being those you are directly related to, but those who were willing to stand up for you. Family, to Pimp Juice, wasn't a construct of DNA relatives, but a collection of peers who would fight by his side. "But nobody's at the crib, right? Mom's working, pop is...you know he's gone. So... the gang, the gang is family. You know it might not be too positive.... But there are people who have been my friends since I was 12. I'll be 48 this month, so I have known my best friend for 36 years...that's family".

The influence of his peer group was a strong factor in Pimp Juice's life. "I made 100 bucks, and I was like, wait a minute, you tell me that this is all I got to do to make \$100? You know and I can buy me some chicken and Funyuns? So, I started selling drugs, you know, and I was in, I was in a gang". His association with drug dealing and gang violence led to his getting shot and needing to seek healthcare at a local hospital. Though his inclination was to ignore the wound, a tendency that was strongly influenced by his family and peers, he noted that he had limited choices at that point. "February 1993, a 44 magnum went through the trunk, the backseat, front seat in my back. So, you know, I pulled over because the guy didn't want to fight me, so I pulled over and closed my eyes to cry and sleep." Pimp Juice was debating on attempting to find treatment for his wound from his family and peers or seek care at an established facility. "So, I pulled over, closed my eyes. And I woke up and I was like, whoa, this is something that you can't go to sleep on this one, bro."

Iatrophobia

The second identified theme was 'Iatrophobia' – the intense fear of medical providers. In her seminal work, *Medical Apartheid*, Harriet Washington describes the historical and modern challenges faced by Black Americans seeking healthcare. The work covers the early encounters between Whites and Black slaves and the racially motivated pseudoscience that developed from there, such as eugenics and social Darwinism. In the twentieth century, these false scientific approaches were used to justify scientific exploitation and poor medical treatment of Black Americans (Washington, 2008).

Nobody but Myself is a successful author and businesswoman. She speaks, without reservation, of her concerns for medical mistreatment and notes that this does not come from any specific incident or encounter as a child, but rather from her understanding of the science and statistics behind differential outcomes for Black patients in the healthcare system.

She expresses her concerns when she quizzed a nurse about her safety in the hospital "Am I going to be safe in this hospital? I said 'I am a Black woman you are a Black woman. Am I going to be safe here? Because if I'm not going be safe here you need to tell me now and I'm getting the hell

out'." For Nobody but Myself this was not a rhetorical question or a point of hyperbole; she truly did not know if she was able to find safety and security when seeking healthcare from White providers. She lives with her partner, a White man, and noted that he does not have to fear healthcare providers in the same way that she, as a Black woman does – "I said, (to her partner) 'you never go to a doctor and wonder if they're trying to hurt you. When I go to a doctor, I wonder if they're going to try to kill me".

This was underscored as she noted that she has had White friends refer her to a medical provider, with the belief that they were sending her to a kind and respectful place where she would receive top-notch care and treatment, only to find that she had a different experience. "And, you know, you don't know whether they're just being jerks, or whether it's you they're treating you a certain kind of way. Until you talk to somebody else (another Black American) and they say 'yeah, that happened to me'. I thought that was kind of weird, because my White friend referred me to go to this doctor, and that White friend had a totally different experience than I had." Then, when speaking to her White friends about the differences in the encounter and treatment, she was often dismissed or had the blame shifted away from the treating providers. "And then your White friend is like oh, she probably didn't mean it." Thus, negating her lived experience and diminishing her concerns about the encounter and any future interactions with medical staff.

Becky With the Good Hair is a Black woman working in sales and marketing for a large international company. She related how she had recently lost a significant amount of weight, and that her perception of bias in healthcare is not limited to racial animosity, but a sense of 'anti-fat bias' as well. This has led her to feel insecure when seeking healthcare and caused her to avoid medical providers for preventative health. Instead, she would only seek care as a last resort, and then would not seek out a primary care provider but would utilize Urgent Care services in the hopes of avoiding bias and the negative feelings associated with that. "So, I just don't go to doctors unless I need to, and when I do I go to Urgent Care. I get whatever it is taken care of, and I move on." This idea, that she

would seek care only when urgent, and avoid spending undue time with a provider, denotes a sense of iatrophobia in her; she would rather suffer from a medical condition longer in order to protect her psychological health.

Black Hammer shared the root cause of his iatrophobia in a story from his childhood. Relating a tale of his childhood visit to his grandmother's home in the deep south where he fell and cut his foot. A simple laceration requiring a simple intervention, Black Hammer was none-the-less denied care due to his race. His voice broke as he recounted the story, becoming emotional as he remembered the first time he faced 'true racism'. "I remember playing with my siblings. My sister broke a bottle...and we're running around the house, and I stepped on that bottle and gashed my foot open. I'll never forget this. I was about nine or ten years old, and the look of that doctor. The local doctor, who was Caucasian wouldn't... wouldn't treat me because I was Black." (Crying) he continued "So we had to drive, it seemed like for days, out of the back country into the city to find a doctor. And I'll never forget that. That was, well, that was emotional because I remember being in the car it was...it seemed like forever... (pauses...) ...ironically, because I hadn't really experienced racism at that point to that to that scale. (Pauses...) I remember laying down in the back of our station wagon and seeing the lights go by as I'm looking up and I'm just in pain I'm crying. (Pauses...) It was a very, very sobering experience. I mean, I think back...I'll never forgot that. That's something that stuck with me."

In a separate interview with Black Hammer he expressed his present day distrust of healthcare: "Because I feel more that people in the healthcare industry, at least where I'm at in my region, are there to service people and take care of their needs. But it's not unlike when I was a child. There was definitely some bias and difference in care. ...it's easier to go to the hospital, it's easier to see the doctor than it used to be. However, that's one of those things that kind of scared me. I'm just kind of like, oh man, who do you trust and that's what it came down to; trust, you know, and I'll be brutally honest, there's not a lot of trust with me and doctors."

This was not an isolated experience brought to light in the interviews, with another woman relating her concern over the disparities of maternal and child health outcomes in the US. Spiderman, a Black woman, is a sworn police officer who has worked patrol and K9. Echoing Black Hammer and Becky with the Good Hair, she noted how she was concerned about seeking medical care. "It is a lot harder for me to get even some kind of help. Just with minor things, I don't want to go in with something major and then I die because, you know, they were like, oh, just sit back and we'll figure it out, type thing." Her concern extended past just wishing to find a provider of color, she was in fear of her safety and that of her child as she presented to the hospital for the delivery. "I was I was telling my fiancée 'you have to be my advocate if I can't talk because I don't want to die'." This fear is not unfounded, as maternal mortality disparities between Black and White patients have increased significantly over the past 20 years, with Black women being four times more likely to die from pregnancy or childbirth related issues than White women (Rossen & Schoendorf 2014).

Invisible Social Conformity

The next theme that emerged was that of *Invisible Social Conformity*, a term given by these authors to the perceived need to hide one's racial identity in order to 'conform' to the dominant social order. This was noted in four interviews.

Black Hammer spoke at length about his concerns with appearing Black, and how it was his White mother who had reinforced this idea to him as a young man. "My mom emphasized that you can't get away with some things that your White friends can get away with. They're not seen as a threat, if you will, or as delinquent. Whereas I was labeled; and that stuck with me."

This 'label' of being a delinquent because of his race carried over as he grew up. Black Hammer noted that while shopping, he 'stood' as the only Black man in the store. "I mean, some of the stores in the in the neighborhood I grew up in, going into those stores, I'm the only Black person in there". (*Pauses...*) "So I kind of stand out". He noted that he would frequently face undue attention while shopping and joked that he was approached by store employees to see if "he needed help" far

more often than his wife (who is White). He would humorously reply "no more than you need help". Though he found humor in the moment, he noted that this was difficult. "When I was a young man, it just seemed like the eyes were on me, like being watched all the time. I find myself a lot of times, even to this day, being overt, when I have things that I pick up off the shelf or over the counter and hold it in the open so that it can be seen. I am overt when it comes to things like that (shopping) where I just wanted to avoid the perception of someone thinking about me stealing."

Black Hammer noted a recent interaction with healthcare that connects to this sense of "invisible social conformity". He recounted a time when he visited a local hospital Emergency Department for an abscessed tooth. His innate fear of healthcare providers had led him to ignore the dental infection until it had become unbearable, resulting in an admission to the ICU. This event was marked with the feeling of being 'other' as he waited in the ER lobby to be seen. "Ironically, just recently, I was in the hospital. Last week, and I didn't really want to go, but I had to because of an abscessed tooth, and I spent two or three days in the hospital and it's a different experience now than it was back then. I mean, I'm more at ease going to the doctor, but, you know, the back of my head I still have a reluctance," Black Hammer expanded upon his recent experience, indicating that he felt invisible as a Black man, but was quickly seen and attended to when he disclosed that he had a 'higher quality' insurance due to his job. "It took a while in the ER for them to treat me, and they were trying to decide what they were going to do admit me or not. So, it was ironic, until I mentioned that I had particular insurance, there was no admitting me, there was no one there to take care of me. Once I mentioned the type of insurance I had, and where I worked, everything was expedited immediately."

For Black Hammer this was an issue of not seeing him as a person or a patient, but in only recognizing him once he revealed the nature of his employment and his 'status' with a better insurance plan. "You know it's one of those things, right? I was in pain, and I was thinking 'did that

just happen?' I don't know, but like I say, I could be reading into it... But in the back of my head it's knocking, you know, that it was me".

Further illustrating the notion of Invisible Social Conformity is James Locke. A former college athlete turned Law Enforcement Officer; James Locke grew up in a mixed-race home in a predominantly White neighborhood. He speaks fondly of his childhood and his connection to his extended (Black) family and the bonds that he had created over his youth – while he also notes that he recognizes that Black Americans have a bad reputation in society or are viewed as 'different' than the rest.

For him, this notion that Black Americans are 'different' has led him to a point in his life where he actively tries to avoid 'acting Black'. "At the same time, you know, from the things I see online, African Americans just being, I guess I could say like wild or just, you know, just out there. That's the life I guess I wanted to avoid." When asked to clarify his point about avoidance, James Locke reiterated the need to hide being Black in order to fit in with the White community and avoid 'causing trouble'. "For me, that's listening to certain music when I show up to pick up my daughter from soccer, or from school, you know. I mean, of course I like rap music and all that. But I just feel like if people hear or see me listening to that music, that may drop the N bomb or other cuss words and whatnot, I'm going to be looked at as though 'there's that Black guy who listened to that rap music'." He was clear that this is a need to hide his authentic self, to avoid discrimination and recrimination for appearing to be as 'That Black Guy' in a White dominated community. "I just feel like there's a certain way I must act. So then, you know, I'm not that parent that's looked at as being, that Black guy."

This tendency to hide himself in plain sight is not only limited to a desire to avoid any negative bias against him but has also spilled over into a protective instinct to shield his daughter from discrimination due to her race. "Especially if it turns into a case of the kids want to come over or come over for a sleepover or something like that. If I'm there playing, you know, rap music or

something that those parents don't like, are they gonna let their children be friends with my daughter?

No. And have sleepovers and all that? No. So I guess it goes back to just being somebody that people can talk to not have to worry about."

Jordan, who is a professional model and businessman, also expressed the need to hide his authentic self, both socially and professionally. He stated that he was able to 'talk White,' and that this ability had helped him get a leg-up in the business world; as he would often make sales calls or arrange meetings via phone, then show up and have the other party surprised that he was a Black man. "I will say that, yes, I was able to connect easier with a lot of the businesses that I deal with in the area because they were dealing with me on the phone. They thought I was White because I spoke so appropriately." He noted that often in these cases the other party was 'thrown off' by his appearance and would pointedly remark on his racial identity. This was a frustrating point for him, as he desired to be seen as a professional, regardless of his racial identity. "Now if you want me to talk street, I have no problem doing that. You know, I'm saying I could talk that way. But still at the same time, you know, I am a businessperson." This also spilled over into his personal life. "The funny part about it is that I've had my White friends say, hey, 'talk Black' and I was kind of like, getting on with it. Like, what do you mean? I said if you want me to talk like I'm from the hood or the streets, that's different. But 'talking Black', to me, is what you see every day. That's just who I am."

Jordan expressed his need to 'act White' versus being his authentic self with healthcare providers as well. "But it all worked out just fine. They didn't treat me any differently other than asking me what sport I played, and I had to then explain to them that I'm a personal trainer as well as a model." He had a perception that his care was based upon his status as an athlete and not as a Black Man.

Spiderman also noted concerns with a need to hide her authentic self when she spoke of her professional and social interactions. People would be surprised as to her grammar and diction, with work colleagues surprised at her 'proper' speech, and friends accusing her of 'acting White'. "I don't

even know how to explain it. It's a feeling more than anything, but I do remember people saying, 'oh you're trying to talk White' and I'm like, well what's 'talking Black then?' I've always questioned stuff like that." Interestingly, for Spiderman, the issue of Invisible Social Conformity had a crossover with Intersubjectivity, as she recalled her father also being accused of attempting to hide his racial identity. "I live it, to be honest. But my experience is way different because my dad was always accused of being White, because he's proper".

Racial Inferiority

Racial inferiority was a recurrent theme throughout the interviews. For Black Hammer, the idea of his inferiority was driven home at a young age. "So, in Black culture, in my opinion, it's been ingrained that I am different... (pauses...) ... and I will never be equal." The notion of racial inferiority was driven by the experiences of a White physician refusing to treat him and has led to his innate fear of doctors and nurses. As Black Hammer related the experience of being refused treatment, he noted that this was a cardinal event in his life where he developed his first 'firsthand' experience with bias and racism. "Ironically I hadn't really experienced racism at that point in my life, or to that scale, before."

Black Hammer was aware of this inequality, not only from his childhood experiences with a racist physician, but much more deeply engrained into his culture and his sense of self. He noted that this was not something he has come to accept and 'be OK with' but rather a point with which he struggles and works to get past. "That's troubling to me at times, because I've tried really hard not to feel that way (less than). I've tried really hard to feel that I'm just as equal as anyone else." Black Hammer spoke of the dichotomy that he lives with, where he believes himself to be 'equal' or 'just as good' as anyone else, however also different because of his race. "The one thing that comes up is that when I'm thinking that way, then I step in front of the mirror and reality sets in. (pauses...) I look back at myself and I know I am different, because I don't feel that way inside."

Pimp Juice illustrated the issue of racial inferiority when he stated his preferred pronouns as 'you guys', indicating that he is not seen as an individual, but is categorized by the stereotype of his racial identity. "My pronoun is 'you guys'. 'You guys', all right. Because people always say, 'you guys' and I'm like, Oh, what does 'you guys' mean? The Black man, Black men." He strongly inferred that his was not a term of affection, but intended as a pejorative, or a means to mock his racial identity. "People even use that to my face, so I'm gonna say my pronoun is 'you guys' because I hear that all the time." This implied a sense of dehumanization, that Pimp Juice was not and individual, but rather part of the collective representation of the view of Black Americans.

Dawg spoke of his children's experiences with racial inferiority. His (White) in-laws never came to accept him as a member of the family (due to racial bias), and this spilled over into his children's lives, who only saw their grandparents twice in 20 years. "Because I mean, you want to have a storybook ending, the parents, and the grandparents and everything... but my kids weren't fortunate enough to have that. That part hurt, you know, and it was strictly based on the races, their beliefs." (*Pauses...*) "I still don't think my kids communicate with their grandparents or the two of them at all. So, it's tough. Yeah, it's really tough."

Geographic Racial Bias

The theme of geographic racial bias was discussed in most interviews. The notion that racial bias tends to be stronger in some regions of the United States than others is well understood (Lipsitz, 2001; Katznelson, 2005; Brown, et al., 2005). Black Hammer noted that his experiences with healthcare providers in the Southern United States were generally more negative than those in the North. This led him to a need to be cautious. "It really put things into perspective (an encounter with a racist physician) for me that the South at that time was a lot different than the North where I was from."

Geographical racial bias was not just North vs South but also based on racial composition of neighborhood. Spiderman, a police officer, noted her fear of certain neighborhoods due to race and demographics. "I get scared more around the neo-Nazi looking males than I do going in Black neighborhoods. So, I will lock my doors and roll my windows up in a White area before I do that in a Black area, because that's how I grew up and I was literally taught to fear White men." This fear was ingrained in her from childhood visits to a family cabin in Idaho. "Going to Idaho, with my (White) mom and (Black) dad ... I remember being in a store with my (White) aunt and my mom and they would surround me and my cousins in this little circle and like escort you places."

Dawg noted that when he and his wife (a White woman) were planning to retire, they had to pay special attention to the location where they wanted to live. Certain areas would not 'tolerate' he and his wife being together, whereas other areas would be more accepting of their mixed-race marriage. "When we are talking about after retirement and where we wanted to live, we also had to account for, you know, being an interracial couple. So, I was thinking of a couple of different places where I wanted to live in, you know, kind of the South. I was thinking of a place southern but then I realized, you know, if we go southern, there's still a lot of segregation in the South or southern portion of the United States. So, I felt more comfortable living on the west coast."

Racial Dichotomy

The final identified theme was racial dichotomy, with several participants noting the difficulty in finding a provider of the same race as them. This posed as a barrier in their access to care. Xierali & Nivet (2018) found that minorities represent a much smaller percentage of physicians than their representation in the general population.

Spiderman noted this as a significant challenge when she was seeking obstetric care. "I don't think there was any option other than a White OB where I was. I don't think I've seen any people of color as an actual doctor. I've seen some nurses, but not doctors".

For Becky with the Good Hair, a medical provider who could see her for who she was, was very important. She did not want to be regarded as 'the fat girl' or the 'Black woman' but seen as the successful human being she truly is. To her, the race of the provider was a significant factor, as Black doctors, or other minority providers, would interact with her in a more personal and therapeutic manner. "You know, I didn't have a PCP until I was 29 years old. Part of that was because I didn't find one that looked like me or sounded like me."

Discussion and Conclusion

Several themes were developed through the interviews, with bias being found as an impediment to care for Black Americans. Discomfort with the healthcare system was often rooted in the experiences and understanding learned in childhood, and shared sense of distrust developed through family and peer groups. This led to fear of healthcare providers (iatrophobia) that was noted in many of the interviews. Respondents would note both personal and familial negative experiences with healthcare providers that shaped their understanding of the healthcare system and fostered the sense of distrust and fear. Many respondents noted the need to hide their racial identity to whatever extent possible, including in interactions with healthcare professionals. Several individuals reported feeling less comfortable seeking care in the southern United States due to the perception of a negative bias associated with that region. This often reinforced the sense of racial inferiority, where individuals described feeling 'less than' their White friends and associates. Further exacerbating the challenges of Black Americans seeking care is the disparity in Black healthcare providers versus the general population. These participants generally preferred to seek care from Black providers, noting a lesser sense of bias from physicians who 'looked like them'.

There has been a large body of work that has demonstrated the presence of negative bias in the US Healthcare system (Bleich, Et al., 2019; Feagin, & Bennefield, 2014; Poulson, Et al., 2021; Umeukeje, & Young, 2019). Much less research into the lived experiences of Black Americans and the direct impact that these biases have on care has been conducted. The present analysis, which

has utilized an Interpretive Hermeneutical approach, suggests that the challenges faced by Black Americans are at least in part the result of systemic bias in the US Healthcare system.

Correspondingly, further research into the understanding of Healthcare Providers views of bias and its impact on care should be conducted to get a holistic understanding of bias from both patient and provider perspective. A full understanding of the nature of bias in the US Healthcare system is necessary to develop the training modalities needed to improve the quality of care for Black Americans. Similarly, Healthcare educational institutions should seek to actively recruit Black Americans as a means of addressing some of the disparities noted. Further education and training should be developed that focuses on the lived experiences of Black Americans, allowing Healthcare professionals a better insight and understanding to the challenges faced by Black Americans. Healthcare providers should seek to develop trusting relationships with Black Americans by approaching patients with an open and honest understanding of the disparities faced by Black patients, and the challenges they face in seeking care.

References

- American Public Health Association (2018) Addressing Law Enforcement Violence as a Public Health Issue. Retrieved from https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/ 2019/01/29/law-enforcement-violence.
- Bandes, S. A., Pryor, M., Kerrison, E. M., & Goff, P. A. (2019). The mismeasure of Terry stops: Assessing the psychological and emotional harms of stop and frisk to individuals and communities. Behavioral Sciences & the Law, 37(2), 176–194. doi: 10.1002/bsl.2401
- Baron, A. S., Dunham, Y., Banaji, M., & Carey, S. (2014). Constraints on the acquisition of social category concepts. Journal of Cognition and Development, 15(2), 238-268.
- Bleich, S. N., Findling, M. G., Casey, L. S., Blendon, R. J., Benson, J. M., SteelFisher, G. K., Sayde, J. M., & Miller, C. (2019). Discrimination in the United States: Experiences of black

- Americans. Health services research, 54 Suppl 2(Suppl 2), 1399–1408. https://doi.org/10.1111/1475-6773.13220
- Brown, M. K., Carnoy, M., Currie, E., Duster, T., Oppenheimer. D. B., Shultz, M. M., &
- Cameron, J. A., Alvarez, J. M., Ruble, D. N., & Fuligni, A. J. (2001). Children's lay theories about ingroups and outgroups: Reconceptualizing research on prejudice. Personality and Social Psychology Review, 5(2), 118–128. https://doi.org/10.1207/S15327957PSPR0502 3
- Dates, J. L. & Barlow, W. (1993) (Eds.). Introduction: A war of images. In Split images: African Americans in the mass media (2nd ed.). Washington, D.C.: Howard University Press.

 (Original work published 1990)
- De Houwer J. Implicit bias Is Behavior: A Functional-Cognitive Perspective on implicit bias.

 Perspect Psychol Sci. 2019 Sep;14(5):835-840. doi: 10.1177/1745691619855638. Epub 2019

 Aug 2. PMID: 31374177.
- Dixon, T. L. (2004). Racialized portrayals of reporters and criminals on local television news. In R. A. Lind (Ed.), Race, gender, media: Considering diversity across audiences, content, and producers, (pp. 132-139). Boston, Massachusetts: Pearson Education, Inc.
- Feagin, J., & Bennefield, Z. (2014). Systemic racism and U.S. health care. Social science & medicine (1982), 103, 7–14. https://doi.org/10.1016/j.socscimed.2013.09.006
- Feldman, M.D. Leading the Way in Health Disparities Research. J GEN INTERN MED 30, 1569 (2015). https://doi.org/10.1007/s11606-015-3498-9
- Fitzgerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review.

 BMC Medical Ethics, 18(1). doi: 10.1186/s12910-017-0179-8
- Gaskin, D. J., Dinwiddie, G. Y., Chan, K. S., & McCleary, R. R. (2012). Residential segregation and the availability of primary care physicians. Health services research, 47(6), 2353–2376. https://doi.org/10.1111/j.1475-6773.2012.01417.x

- Gonzalez, C. M., Deno, M. L., Kintzer, E., Marantz, P. R., Lypson, M. L., & McKee, M. D. (2018). Patient perspectives on racial and ethnic implicit bias in clinical encounters: Implications for curriculum development. Patient education and counseling, 101(9), 1669–1675. https://doi.org/10.1016/j.pec.2018.05.016
- Greenwald, A. G., Banaji, M. R., & Nosek, B. A. (2015). Statistically small effects of the implicit Association Test can have societally large effects. Journal of Personality and Social Psychology, 108(4), 553–561
- Iruka, I. U. (2013). The Black family: Re-imagining family support and engagement. In Being Black is not a risk factor: A strengths-based look at the state of the Black child (pp. 18-23). Washington, DC: National Black Child Development Institute.
- James, L., Klinger, D., & Vila, B. (2014). Racial and ethnic bias in decisions to shoot seen through a stronger lens: experimental results from high-fidelity laboratory simulations. Journal of Experimental Criminology, 10(3), 323–340. doi: 10.1007/s11292-014-9204-9
- Katznelson, I. (2005). When affirmative action was White. New York, NY: W.W. Norton & Company, Inc.
- Kuppachi, S., Norman, S. P., Lentine, K. L., & Axelrod, D. A. (2020). Using race to estimate glomerular filtration and its impact in kidney transplantation. Clinical Transplantation, 35(1). https://doi.org/10.1111/ctr.14136
- Louie, P., & Wilkes, R. (2018). Representations of race and skin tone in medical textbook imagery. *Social science & medicine* (1982), 202, 38–42. https://doi.org/10.1016/j.socscimed.2018.02.023
- Lipsitz, G. (2011). How racism takes place. Philadelphia, Pennsylvania: Temple University press. https://doi.org/10.1016/j.socscimed.2017.05.009
- Namkung, V. (2021, May 3). The story behind the group tracking anti-Asian hate incidents. NBCNews.com.

- https://www.nbcnews.com/news/asian-america/story-group-tracking-anti-asian-hate-incidents-rcna662.
- Pager, D., & Shepherd, H. (2008). The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets. Annual Review of Sociology, 34(1), 181–209. https://doi.org/10.1146/annurev.soc.33.040406.131740
- Poulson, M., Geary, A., Annesi, C., Allee, L., Kenzik, K., Sanchez, S., Tseng, J., & Dechert, T. (2021). National Disparities in COVID-19 Outcomes between Black and White Americans. Journal of the National Medical Association, 113(2), 125–132. https://doi.org/10.1016/j.jnma.2020.07.009
- Reeves, J. L. & Campbell, R. (1994). Cracked coverage: Television news, the anti-cocaine crusade, and the Reagan legacy. Durham and London, North Carolina: Duke University Press.
- Rossen, L. M., & Schoendorf, K. C. (2014). Trends in Racial and Ethnic Disparities in Infant Mortality Rates in the United States, 1989–2006. American Journal of Public Health, 104(8), 1549–1556. https://doi.org/10.2105/ajph.2013.301272
- Shepherd, H. (2011). The Cultural Context of Cognition: What the implicit Association Test Tells Us

 About How Culture Works. Sociological Forum, 26(1),

 121–143.https://doi.org/10.1111/j.1573-7861.2010.01227.x
- Smolinski, P. (2021, May 1). New data shows continued surge in anti-Asian hate crime reports in some major cities. CBS News. https://www.cbsnews.com/news/anti-asian-hate-crime-reports-rise/.
- Umeukeje, E. M., & Young, B. A. (2019). Genetics and ESKD Disparities in African Americans. American journal of kidney diseases: the official journal of the National Kidney Foundation, 74(6), 811–821. https://doi.org/10.1053/j.ajkd.2019.06.006
- Washington, H. A. (2008). Medical apartheid: The dark history of medical experimentation

- on Black Americans from colonial times to the present (1st Anchor Book ed.). New York, NY: Anchor Books. (Original works published 2006)
- Washington, J. (2023). Black Americans overwhelmingly say unconscious bias is a major barrier in their lives: After a summer of protest, a poll shows large gaps between attitudes of Black and white people over bias and discrimination. Www.Andscape.Com. https://andscape.com/features/black-americans-overwhelmingly-say-unconscious-bias-is-a-major-barrier-in-their-lives/
- Wellman, D. (2005). White-washing race: The myth of a color-blind society. Berkley & Los Angeles, California: University of California Press, Ltd. (Original work published 2003)
- Wilson, W. J. (2000). The bridge over the racial divide: rising inequality and coalition politics. Choice Reviews Online, 37(09), 37–5362. https://doi.org/10.5860/choice.37-5362
- Xierali, I. M., & Nivet, M. A. (2018). The Racial and Ethnic Composition and Distribution of Primary Care Physicians. Journal of health care for the poor and underserved, 29(1), 556–570. https://doi.org/10.1353/hpu.2018.0036

Leadership in Action: How Teachers' Beliefs, Skills, Climate, Education, and Reflection Shape Their Leadership Approach

by

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Abstract

This qualitative study examines how emerging teacher leaders construct their leadership identities through a combination of personal beliefs, professional skills, graduate coursework, and reflective practice. Conducted within a Master of Teacher Leadership program at a public university in Texas,

the research draws from reflective responses and goal-setting artifacts submitted by thirty-five graduate students enrolled in a five-week online leadership course. The study addresses three guiding questions: (1) What knowledge and skills do teacher leaders need to be effective in today's educational environment? (2) How do coursework, personal bias, and external influences shape leadership philosophy? (3) What competencies do candidates aim to refine to support future leadership roles? Thematic analysis revealed that candidates emphasized reflective practice (97%), communication and collaboration (94%), and emotional intelligence (80%) as essential leadership attributes. Coursework was identified as both a catalyst for growth and an area that requires greater relevance and application. Participants highlighted a desire to remain in classroom roles while influencing campus reform, often citing technology integration, curriculum development, and self-regulation as priority areas for continued growth. Findings suggest that graduate-level leadership preparation can foster a mindset shift in teacher leaders, encouraging agency, adaptive expertise, and a student-centered vision of leadership. The study concludes with implications for program design, including the integration of more practice-based experiences and the conduct of longitudinal assessments of leadership impact beyond program completion.

Keywords: Teacher Leadership, reflective practice, educational reform, professional development, instructional leadership

Introduction and Background

In an era of rapid educational reform, teacher leadership has emerged as a critical force in shaping instructional effectiveness and school climate. Yet, when asked about their leadership roles, many educators still respond with, "I am just a teacher" (Helterbran, 2010). While leadership is widely recognized as essential for school improvement, the process is rarely driven by teachers themselves (Fullan, 2005). Empowering educators to embrace leadership requires intentional training programs that build confidence, encourage reflection, and equip them to influence meaningful school reform (Uribe-Florez et al., 2014).

This study explores the interplay of teachers' beliefs, skills, professional climate, and reflective practice in shaping their leadership approaches. By examining how teacher leadership candidates develop and refine their philosophies, this research provides valuable insights into the competencies required for educators to drive change. Through a blend of theoretical analysis and practice-based inquiry, this study contributes to the ongoing conversation about how teacher leaders impact student achievement, instructional innovation, and school transformation.

Review of Literature

The purpose of this descriptive qualitative study was to gain insight into teacher leadership candidates' philosophy, knowledge, skill level, and reflection on the impact of teacher leadership on school reform. The study also examined the candidates' goals for continuing to learn and pursuing a leadership role. This section will examine Research Question 1.

Leadership Competencies

The primary function of school leaders is to facilitate the achievement of the objectives and goals of an educational institution. Educational leadership encompasses several vital aspects that are central to a school's mission, such as teaching and learning processes, supervisory responsibilities, instructional methodologies, academic programs, and assessment and evaluation practices. (Mduwile, P., & Komariah, A., 2021). A comprehensive approach to developing school leadership competencies can significantly impact the creation of effective schools. This approach combines three key elements: strategic policy implementation, professional development, and innovative leadership practices. (Ambon, J., Alias, B. S., & Mansor, A. N., 2025). The distributed leadership approach encourages the engagement of all stakeholders in the educational process and holds them accountable for student learning outcomes. (Gumus, S., Bellibas, M.S., Esen, M., & Gumus, E., 2018).

Technology Integration and Leadership Practices

Many qualities are required to be a successful leader who fosters a creative and critical approach to curriculum leadership supported by technology. Leaders must be knowledgeable about current technology relevant to pedagogy and capable of suggesting appropriate technology for specific content and context. (Mduwile, P., & Komariah, A., 2021). One of the key roles of a school leader is to spearhead instructional technology initiatives, promoting their widespread use in teaching and student learning. (Christensen, R., Eichhorn, K., Prestridge, S., Petko, D., Sligte, H., Baker, R., Alayyar, G., & Knezek, G. (2018). Establishing an institutional culture and vision for technology, ensuring access to technology for teachers and students, and providing quality professional

development are essential for the effective use of instructional technology. (Robinson Carney, C., 2019).

Socio-Emotional Learning (SEL) and Responsive Equity Leadership

Educators and administrators considered SEL crucial for addressing the social and emotional needs of high school students, promoting their well-being, academic achievement, and life readiness. They also acknowledged its importance in enhancing the school climate and relationships. (Felder, S. R., 2024). Effective leaders manage emotions skillfully, understand others' feelings, inspire motivation, empower their teams, and build trust to achieve success. (Alamo, M., & Falla, D., 2023). School leaders identified empathy and effective communication as essential leadership qualities for cultivating a positive and supportive atmosphere. (Bukhari, S. U. P., Ali, K. K., Ashiq, R., Rub, H. A., & Kalhoro, I. A., 2024).

Change Management and Adaptive Leadership

To make an organization more adaptive, leaders must develop personal skills, cultivate supportive attitudes, and establish collaborative structures that promote adaptability. (Dunn, R., 2020). Adaptive leadership is particularly well-suited for educational organizations, given the interdependence of students, parents, teachers, and legislators. Leaders must oversee both leaders and subordinates while fostering collaboration and professional growth. (Khoso, F. J., Sahito, Z. H., & Kerio, G. A., 2025. Research indicates a strong, positive correlation between Transformational Leadership and Organizational Citizenship Behavior (OCB). This leadership style significantly enhances employee productivity and satisfaction across various organizations, including higher education institutions. Leaders should emphasize individual consideration, intellectual stimulation, and idealized influence to foster OCB, ensuring employees feel valued, motivated, and encouraged to share their ideas. (Sharma, R. K., & Sharma, K., 2022).

Policy and Community Engagement

School and district leadership are essential for maintaining high-quality, sustainable partnerships. School leaders play a pivotal role in creating a welcoming environment, fostering collaboration, and promoting a culture of shared leadership. As partnership models become increasingly complex, the demand for effective school leadership is growing ever more urgent. (Valli, L., Stefanski, A., & Jacobson, R., 2014). School leaders play a crucial role in developing strong partnership programs and encouraging teachers to engage parents in their children's education, both at school and at home. Their leadership in cultivating a collaborative school culture and establishing partnership structures is vital for helping teachers engage with families to support student success. (Jung, S. B., & Sheldon, S., 2020).

Coursework

Graduate coursework and professional development are instrumental in shaping teacher leaders' philosophies and practices. Engaging in advanced studies exposes educators to new theoretical frameworks, reflective practices, and evidence-based instructional strategies (Smith, 2021). Research indicates that teachers who participate in ongoing professional development are more likely to adopt innovative approaches, become reflective practitioners, and contribute to school improvement efforts (Smith, 2021; Day & Gu, 2010).

Coursework that emphasizes leadership, collaboration, and data-driven decision-making prepares educators to navigate complex educational challenges and lead change effectively (Smith, 2021). Graduate programs that integrate experiential learning and action research further support teacher leaders in applying theoretical knowledge to real-world educational settings (Cochran-Smith & Lytle, 2009). These opportunities allow educators to critically examine their practices, engage in continuous improvement, and advocate for systemic change (Avalos, 2011).

Standardized Testing

Standardized testing exerts considerable influence on school leadership and instructional priorities. The pressure to achieve high test scores often shifts leaders' focus from instructional improvement to data management and test preparation (Jimenez & Modaffari, 2021). This can result in a narrowed curriculum, increased stress among educators, and diminished emphasis on holistic student development (Jimenez & Modaffari, 2021).

While standardized assessments provide valuable data for guiding instruction, overreliance on test scores may undermine creativity, critical thinking, and equity in education (Jimenez & Modaffari, 2021). Studies indicate that excessive focus on testing can lead to instructional practices that prioritize rote memorization over deeper learning experiences (Wiliam, 2010).

Principals and educational leaders must balance accountability requirements with their responsibility to foster rich, student-centered learning environments. Effective leadership involves advocating for assessment policies that support diverse learning needs while ensuring that instructional practices remain engaging and meaningful (Wiliam, 2010).

Politics

Politics plays a decisive role in shaping educational leadership, influencing policy, funding, curriculum, and school autonomy. The political climate—whether characterized by stability or polarization—affects leaders' ability to implement reforms, secure resources, and build coalitions with stakeholders (Woo et al., 2023). Educational leaders must navigate complex political landscapes, advocate for their schools, and align their vision with national and local priorities (Woo et al., 2023). Political instability can create challenges in securing funding and implementing policies, while centralized or decentralized governance structures impact the autonomy of educational leaders (Hopkins, 2023). Understanding the intersection of politics and education is crucial for leaders striving to create inclusive and equitable learning environments (Hopkins, 2023).

Bias

Implicit bias remains a pervasive challenge in education, influencing teacher expectations, disciplinary practices, and student outcomes. Studies highlight how implicit racial and gender biases can lead to inequities in grading, access to advanced coursework, and disciplinary actions, contributing to achievement gaps and the underrepresentation of minority students in STEM and other fields (Santa Maria, 2024). Research has shown that implicit biases among educators can shape student-teacher interactions, often leading to differential treatment based on race and socioeconomic status (Hu & Hancock, 2024).

Leaders must take proactive steps to recognize and address their own biases, foster open dialogue, and create equitable policies and practices (Santa Maria, 2024).

Collaboration

Collaboration is widely regarded as a foundational element of effective educational leadership. Research demonstrates that collaborative cultures empower educators to share responsibility for student learning, foster collective capacity, and enhance professional growth (Ambon et al., 2025; Holowka, 2020). Principals and school leaders play a critical role by establishing structures for collaborative planning, protecting instructional time, and distributing leadership responsibilities, which nurtures teamwork and shared ownership (Fladerer et al., 2020; Holowka, 2020). Collaborative leadership also encourages innovation, as teachers are empowered to contribute ideas and take initiative in school improvement efforts (Ambon et al., 2025). This approach not only improves decision-making but also builds trust, strengthens school culture, and leads to higher student achievement (Yukl, 2012). When teachers work together in professional learning communities, they are more likely to implement evidence-based practices and support each other's growth, resulting in a more positive and effective school environment (Holowka, 2020; Fladerer et al., 2020).

Mentorship

Mentorship is a vital driver of teacher leadership and professional growth. Effective mentoring relationships—whether instructional, psychosocial, or peer-based—help teachers develop leadership skills, confidence, and a sense of community within their schools (Mori, 2024; Gul et al., 2019). Structured mentorship programs foster reflective practice, support career transitions, and improve educational outcomes for both mentors and mentees (Stanulis & Floden, 2009). Research shows that mentoring enhances communication, collaboration, and decision-making skills, while also promoting teacher retention and a positive school culture (Gul et al., 2019). Additionally, mentorship programs have a measurable impact on student achievement, school connectedness, and the development of leadership capacity among both novice and experienced teachers (Mori, 2024; Stanulis & Floden, 2009).

Influence Change

Teacher leaders are pivotal agents of change, driving school improvement, innovation, and positive culture shifts. Research shows that teacher leadership is linked to higher student achievement, professional growth, and the successful implementation of reform initiatives (Aliu & Kaçaniku, 2023; Smylie & Eckert, 2018). Effective teacher leaders identify barriers to student success, model best practices, and foster reflective, collaborative environments (Berry et al., 2010; Smylie & Eckert, 2018). They also play a crucial role in mentoring novice teachers, fostering a culture of continuous learning, and advocating for instructional improvements (Lowery-Moore et al., 2017).

Graduate programs and professional development that nurture confidence, adaptability, and change management skills prepare educators to lead transformation at the classroom, school, and district levels (Aliu & Kaçaniku, 2023). Research suggests that instructional leadership significantly enhances teacher self-efficacy, which in turn improves student outcomes (Alanoglu, 2022). Teacher leaders to bridge the gap between administration and classroom practice makes them essential in shaping effective educational strategies (Helterbran, 2010).

Student Centered

Student-centered education prioritizes active learning, critical thinking, and student agency, leading to improved academic and personal growth (Richardson, 2020). Research shows that student-centered strategies—such as collaborative learning, peer mentorship, and project-based instruction—enhance engagement, inclusivity, and achievement (Richardson, 2024; Tadesse et al., 2024). These approaches foster deeper learning by encouraging students to explore concepts in meaningful ways, rather than passively absorbing information (Kaput, 2018).

Studies indicate that student-centered learning improves motivation and self-efficacy, particularly among marginalized student populations (Kaput, 2018).

Effective school leaders support this approach by providing resources, modeling student-centered values, and fostering strong relationships among staff and students. Leadership plays a crucial role in sustaining student-centered learning environments by promoting professional development and ensuring that instructional practices align with student needs (Kaput, 2018).

Professional Development

Professional development is a crucial skill for teacher leaders, with forty out of forty-four candidates planning to refine this area1. As "lead learners," teacher leaders' model lifelong learning and instructional leadership. Research by Day & Gu (2010) suggests that focusing on professional development prepares teacher leaders to support colleagues in implementing new pedagogies1. Effective teacher leaders design meaningful learning opportunities based on staff needs, as noted by Shulman (2004).

Growth Mindset

The concept of possessing a growth mindset, first introduced by Carol Dweck (2006), is an essential component for effective leadership. Teacher leaders with a growth mindset accept challenges as opportunities for growth and recognize that setbacks are part of the learning process, with much to learn from failure, thereby building a resilient nature. Research from Yeager & Dweck

(2012) indicates that teacher leaders who reflect a growth mindset are likely to create a positive culture where growth for students and staff is encouraged. Teacher leadership candidates who choose to develop and refine a growth mindset will strive to create and maintain safe learning environments for students and staff.

Self-Control

The concept of self-control is a logical trait for any leader to have and is essential for teacher leaders in their role working with students, staff, and families. Their work requires them to lead by example and keep their emotions in check. Research indicates that self-regulation is closely related to leadership effectiveness (Zhao et al., 2019). Consequently, teacher leadership candidates who focus on refinement in self-control are prepared to manage conflicts, facilitate difficult conversations within professional parameters, and work effectively under pressure. Moreover, cultivating self-control is crucial for modeling behavior that fosters a positive and productive learning environment for students and staff (Zimmerman, 2000).

Professional Development

In the career of an educational leader, professional development is a lifelong process of learning, where the leader is the lead learner. The term "Lead Learner" in educational leadership refers to a school leader who models lifelong learning, professional growth, and instructional leadership (Fullan, 2014). Professional development plays a pivotal role in improving instructional practices. Teacher leaders are the voice behind designing and delivering meaningful learning. Day & Gu's (2010) research infers that teacher leadership candidates who focus on professional development for refinement will be prepared to support their colleagues in implementing new pedagogies.

Technology Integration

The continuous rapid advancement of technology in education has made technology integration an increasingly important skill for teacher leaders (Ertmer & Ottenbreit-Leftwich, 2010). Not only do teacher leaders have to implement technology effectively, but they also need to provide

guidance to peers on technology integration; peers who may not be comfortable doing so. Research indicates that focusing on refining technology integration will lead to the development of effective guidance practices (Dexter, Anderson, & Becker, 2012). Moreover, technology is essential for facilitating personalized learning and creating collaborative learning environments (Puentedura, 2013).

Curriculum Development

For decades, curriculum development has been a pillar of teacher leadership programs. According to Darling-Hammond et al. (2017), effective teacher leaders are not only proficient in implementing curricula but also in designing and adapting curricula to meet the needs of diverse learners. Teacher leaders are expected to collaborate in curriculum design, using data-driven decisions to improve student outcomes (Fullan, 2014). Teacher leaders who emphasize refinement in curriculum development build their capacity in effective instructional practices and leading curriculum reforms.

Methodology

The objective of this descriptive qualitative research study was to gain insight into teacher leadership candidates' philosophy, knowledge, skill level, and reflections of teacher leadership candidates on the impact of teacher leadership on school reform. It also examines the candidates' goals to continue learning and to assume leadership roles. This study was designed to provide a foundation for determining how the candidate's perspectives may impact on their practice as leaders and how that middle voice of leadership will impact school reform. While also informing how universities and districts can support the development of this middle voice of leadership.

Content of the Course

This course is the final course in the Teacher Leadership Master's Program. This synthesis course serves as a pivotal culminating experience, enabling students to critically examine the breadth of knowledge they have acquired throughout their program. By reflecting on key concepts,

research-based strategies, and pedagogical frameworks, students deepen their understanding of how this learning translates into effective classroom practices and teacher leadership. The course promotes an intentional approach to integrating theoretical insights with practical applications, empowering educators to refine their instructional methodologies, support diverse learners, and drive systemic improvements in their schools and districts. Through self-assessment and collaborative dialogue, participants cultivate a leadership mindset, positioning themselves as change agents who advocate for equitable education and innovative teaching practices.

Participants

The participants in this study were graduate students enrolled in the Master of Teacher Leadership program at Lamar University. Specifically, the sample was drawn from the Fall 2 2024 cohort of PEDG 5376, a five-week online course designed to synthesize learning and application of leadership principles in education. The course had a total enrollment of forty-four students, of which a random sample of thirty-five participants was selected for analysis. These educators, representing diverse backgrounds and instructional experiences, engaged in reflective practice, exploring how their coursework shaped their pedagogical approaches and leadership roles within their schools and districts. Their insights offered valuable perspectives on integrating teacher leadership principles into contemporary educational settings.

Procedures

This study employed a descriptive, qualitative research design, utilizing textual analysis to examine the philosophies, skill sets, and goals of teacher leadership candidates within the Master of Teacher Leadership program at Lamar University. Data were collected from a required assignment in Module 5 of the PEDG 5376 course, where thirty-five randomly selected participants provided reflective responses on leadership competencies, influences shaping their philosophy, and skill refinement plans. To ensure a systematic approach, comparative analysis principles were applied, with coded textual responses categorized into emergent themes. The study reviewed archived student

responses from seven key sections: self-directed learning, presentation and self-control, communication and student-centered practices, knowledge and skills, reflective practice, goal setting, and conclusions. These responses were then analyzed for patterns in leadership development, instructional efficacy, and future refinement strategies. The methodological approach provided an in-depth understanding of how coursework and external factors shape the perspectives of teacher leadership candidates, while highlighting areas for growth in leadership competencies.

Data Collection and Analysis

Data was collected from archived textual responses from a course-embedded assignment in Module 5, which required candidates to reflect on seven key areas: self-direction and responsibility, presentation and self-control, communication and student-centered approaches, knowledge and skills, reflective practice, goal setting, and overall leadership conclusions. These components were designed to assess each candidate's evolving leadership philosophy, skill set, and future aspirations through open-ended questions.

Research Questions

The following questions guided this research:

- RQ1. With the changing landscape of educational leadership, what skill sets, and knowledge will teacher leaders need to be effective?
- RQ2. What biases, outside influences, and coursework help to shape master's students' philosophy of teacher leadership?
- RQ3. What future skills do teacher leadership candidates plan to refine to become effective leaders?

Findings and Emergent Themes

Analysis of participant responses yielded rich insight into how teacher leadership candidates conceptualize and develop their leadership capacities. Three central themes emerged, each corresponding to a guiding research question.

1. Core Leadership Competencies (RQ1)

Participants identified reflective practice (97%) as the most critical competency for effective leadership. Communication and collaboration skills (94%), instructional expertise and data literacy (86%), and emotional intelligence (80%) were also frequently cited. Candidates emphasized that leadership requires ongoing self-assessment, peer collaboration, and adaptability in meeting the needs of students.

2. Influences on Leadership Philosophy (RQ2)

Coursework (80%) was the most influential factor in shaping leadership philosophy, although some students critiqued specific assignments as lacking practical relevance. Standardized testing (51%) and politics (46%) also emerged as shaping forces. Interestingly, only a minority (11%) cited bias as a considerable influence. Across responses, 100% of participants identified collaboration and mentorship as central to their leadership identity, with many emphasizing their desire to lead while remaining in the classroom.

3. Areas for Refinement and Growth (RQ3)

Professional development (100%) was universally identified as essential for continued leadership growth. Participants expressed a desire to refine self-regulation (86%), cultivate a growth mindset (72%), and strengthen technology integration skills (52%)—a smaller but notable group (35%) prioritized curriculum development. Many candidates articulated concrete goals, such as leading professional development, enhancing data analysis capabilities, and utilizing AI or digital tools to improve instruction.

Cross-Cutting Trend

A recurring narrative across responses was the view of teacher leaders as agents of change who led from within the classroom. This "lead learner" identity reflects a shift from traditional hierarchical models to a more distributed, collaborative leadership approach. Participants

demonstrated a strong understanding of how teacher leadership contributes to school improvement, instructional quality, and student achievement.

Analysis of Research Questions

To address the three research questions in this study, the researchers followed the principles of comparative thematic coding. Each response was independently reviewed and coded using emergent categories and subcategories to identify patterns and recurring concepts. Codes were refined through constant comparison, ensuring alignment across participants' reflections and maintaining internal consistency. This allowed for the identification of dominant themes and frequency of responses, providing both qualitative depth and descriptive insight into the participants' perspectives.

In exploring the evolving demands of educational leadership, this study sought to determine the essential skill sets and knowledge required for teacher leaders to be effective. Five key themes

essential skill sets and knowledge required for teacher leaders to be effective. Five key themes emerged from participants' reflections, highlighting competencies that contribute to leadership success. These themes include reflective practice, communication and collaborative skills, instructional expertise and data literacy, emotional intelligence, and change management.

RQ1. With the changing landscape of educational leadership, what skill sets, and knowledge will teacher leaders need to be effective?

Reflective Practice. Among the participants, 97% emphasized the importance of reflective practice in teacher leadership, identifying professional development and continuous self-assessment as critical to growth. Reflection enables educators to assess their methods and refine their practices, promoting adaptability and improvement. One participant noted, "Reflection is especially important for growth as an educator. It allows us to evaluate our practices and find ways to improve ourselves." Another echoed this sentiment, stating, "I am always reflecting on my practices and am not afraid to make changes if it will help my students." These findings support the notion that intentional reflection enhances instructional efficacy and drives ongoing development among educators.

Communication and Collaborative Skills. Effective communication and collaboration emerged as the second most valued skill, with 90% of participants recognizing its significance in leadership effectiveness. Teacher leaders who cultivate open communication foster trust and engagement among students, colleagues, and stakeholders. One participant explained, "Effective communication allows me to convey concepts and engage not only students but also colleagues and parents, fostering a collaborative environment." Another shared, "Collaboration is a key part of my philosophy because I believe that education thrives when teachers work together." Participants underscored the importance of active listening, empathy, and teamwork in navigating the complexities of school leadership.

Instructional Expertise and Data Literacy. Instructional expertise and data literacy were identified as essential competencies by 86% of participants, reflecting the growing demand for data-driven educational practices. Participants recognized the integration of technology and assessment strategies as integral to instructional leadership. One candidate remarked, "I try to incorporate technology often in my classroom, whether it is the platform I have students deliver or receive information on, to practice their writing and grammar skills, etc. It can be useful in many ways." This aligns with research highlighting that instructional expertise extends beyond content mastery to encompass assessment design, student data analysis, and the adaptation of teaching strategies to improve learning outcomes.

Emotional Intelligence. Emotional intelligence (EI) emerged as a foundational aspect of teacher leadership, with 80% of participants highlighting its role in fostering supportive and inclusive environments. Educators who demonstrate empathy, self-regulation, and interpersonal awareness play a crucial role in fostering positive school climates and promoting productive learning experiences. One participant explained, "When adopting a person/student-centered approach in communication, factors like speech, body language, and written notes are vital in conveying empathy, understanding, and support." These perspectives align with established EI frameworks, which emphasize

self-awareness, motivation, and social skills as essential components of effective leadership. Leaders who exhibit emotional intelligence build trust, manage conflicts, and cultivate communities where students and staff feel valued.

Change Management. While only 57% of participants prioritized change management, those who did acknowledge its importance in educational innovation. Teacher leaders must navigate evolving pedagogical landscapes and institutional reforms to foster growth and development. One participant expressed their commitment to adaptability, stating their goal to "learn more about educational programs, presentation tools, and AI" as a means of staying ahead in an increasingly digital and dynamic learning environment. This sentiment underscores the need for educators to embrace change and develop strategies to lead through transitions in curriculum, policy, and the integration of technology.

RQ2. What bias, outside influences, and coursework help to shape master's students' philosophy of teacher leadership?

Coursework. Participants identified coursework, testing pressures, politics, and bias as factors influencing their philosophies of teacher leadership. Eighty percent of respondents cited coursework as a considerable influence on their development as leaders, although some noted concerns regarding the relevance of assignments. One participant reflected, "The coursework made me think about leadership differently, but some assignments felt like busy work rather than meaningful learning experiences." Another note. "It influenced my belief in the power of community within educational settings and shaped my commitment to fostering a supportive environment for both students and fellow teachers." A participant stated the following. "One area I found particularly inspiring was the focus on evidence-based practices, which has encouraged me to explore more resources for growth." We will use the participants' feedback as we design and update our coursework.

Testing Pressures. Standardized testing remains an intensely debated topic in education, with educators and researchers expressing both support and criticism. Many educators argue that standardized tests place excessive pressure on students and teachers, often leading to a curriculum that is overly focused on test preparation and neglects deeper learning. Despite these concerns, some educators acknowledge that standardized tests provide a consistent measure of student progress across schools and districts. The data from these tests can help to identify students who need additional support or advanced academic challenges, ensuring equitable access to resources. Fifty-one percent of respondents reported that testing pressure impacts instruction and student achievement. One participant says. "In 2019, the Texas Legislature required that all reading teachers pass the STR exam. My district implemented an eleven-month program to train us in place of the exam. This new way of thinking has drastically changed the way reading looks in my classroom and across the state of Texas. We now offer explicit phonics teaching in our classrooms instead of a more literacy-based approach."

Politics. Political influences shaped the leadership philosophy for 46% of participants, particularly about policy changes and school budgeting constraints, or in some cases, led to increased funding. One candidate reported. "In the last five years, legislative policies such as the ESSA (Every Student Succeeds Act) and the push for more rigorous accountability through standardized assessments have significantly influenced the field of education. These policies have emphasized the importance of data driven. Another expressed a negative impact of politics. "As well as certain books being banned from being used in the classroom for a novel study. Two evidence-based practices that help meet these changes are differentiation and collaboration." A third participant noted the positive influence of politics. "One piece of legislation that has affected and influenced my field is the provision of ESSER (Elementary and Secondary Schools Emergency Relief). This has influenced my field in that it provided funds to schools to help after COVID. These funds helped provide resources for students to support schools in closing the achievement gaps and to help them operate after the

pandemic. These funds provided for our school to provide Chromebooks to students, helped to pay teachers for working after contract hours to help with tutoring, and provided supplies and services to students."

Bias. Although only 11% of participants explicitly acknowledged bias as a factor in shaping their leadership philosophy, its lower prevalence in responses suggests that it may not be widely recognized or openly discussed. This could indicate an implicit influence rather than a consciously articulated concern, highlighting the need for deeper reflection on how biases, whether personal or systemic, impact educational leadership and decision-making.

Collaboration and mentorship. Participants consistently emphasized collaboration and mentorship as essential elements of teacher leadership, with 100% citing them as influential in shaping their philosophy. One participant noted, "Teacher leaders have the power to empower every individual to make a difference." Another reinforced the collaborative mindset, stating, "This spirit of teamwork leads to more effective solutions for improving student learning and outcomes." A third participant cited. "Reflecting with an experienced colleague gives you the opportunity to discuss what is going well and identify areas where you might need to improve. This type of reflection allows you to receive constructive feedback and offers a supportive ear when you need to talk through your challenges."

Influencing Change. Additionally, 85% of participants recognized the importance of influencing change, advocating for leadership roles that support student success. One Participant expressed this "Teacher leaders have the power to empower every individual to make a difference." A second participant reported. "Regardless of the specific role, teacher leaders have a responsibility to foster a culture of continuous improvement in schools by leading by example, supporting professional development, enhancing student learning, collaborating, and advocating for both teachers and students."

Student Centered Approach. 83% prioritized student-centered approaches, aligning their leadership philosophy with equitable educational practices. One participant shared, "Every child should have access to an education that is relevant and appropriate for their needs. Some students may need more time to grasp the content fully." Another expressed "I hope to join this revolution by supporting the teachers at my campus through increased collaboration and professional development targeted at the needs of our gifted students."

RQ3. What future skills do teacher leadership candidates plan to refine to become effective leaders?

Areas for Refinement and Growth (RQ3) Professional development (100%) was universally identified as essential for continued leadership growth. Participants expressed a desire to refine self-regulation (86%), cultivate a growth mindset (72%), and strengthen technology integration skills (52%)—a smaller but notable group (35%) prioritized curriculum development. Many candidates articulated concrete goals, such as leading professional development, enhancing data analysis capabilities, and utilizing AI or digital tools to improve instruction.

Discussion

The findings of this study illustrate the complexities of teacher leadership development, emphasizing the interplay between reflective practice, collaboration, instructional expertise, emotional intelligence, and change management. Participants overwhelmingly prioritized reflective practice (97%), reinforcing existing research that self-assessment is a foundational element of effective leadership (Helterbran, 2010). Reflection fosters continuous improvement, enabling educators to critically evaluate their instructional approaches and refine their leadership strategies.

Similarly, communication and collaboration (94%) emerged as key competencies, underscoring the importance of shared leadership within schools. Collaborative environments not only enhance peer support but also facilitate instructional innovation, aligning with research highlighting distributed leadership as essential for educational reform (Gumus et al., 2018).

Participants frequently cited the role of mentorship in leadership formation, viewing professional networks as vital for growth.

Instructional expertise and data literacy (86%) were widely recognized as necessary skills for teacher leaders, particularly in navigating the increasing emphasis on data-driven decision-making. Many participants emphasized the importance of integrating technology, aligning with research that suggests digital proficiency is a critical leadership attribute (Christensen et al., 2018). Emotional intelligence (80%) was also identified as a defining characteristic, with participants highlighting the need for empathy, self-regulation, and interpersonal awareness—qualities recognized as central to fostering inclusive school environments (Felder, 2024).

The lower emphasis on change management (57%) suggests that while educators acknowledge its importance, they may not yet view themselves as active change agents within their institutions. This finding highlights an opportunity for leadership preparation programs to strengthen training on adaptive expertise and reform strategies, ensuring that teacher leaders feel equipped to navigate systemic change effectively.

Beyond competencies, this study also examined external influences on leadership development, revealing the varied impacts of coursework (80%), standardized testing (51%), and politics (46%). While coursework was widely recognized as a catalyst for growth, some participants expressed concerns regarding its practicality, suggesting a need for more embedded, real-world applications. The findings reinforce previous research advocating for experiential learning models to bridge theory and practice (Uribe-Florez et al., 2014).

Participants expressed a powerful desire to refine leadership skills, with professional development (100%), self-regulation (86%), growth mindset (72%), and technology integration (52%) identified as priority areas. Notably, 35% of participants emphasized curriculum development, reflecting an interest in influencing instructional design. These trends suggest that teacher leadership

candidates aspire to lead from within the classroom, positioning themselves as instructional change agents rather than transitioning into administrative roles.

Conclusions and Implications

This study underscores the evolving nature of teacher leadership, emphasizing that effective leaders cultivate self-awareness, collaboration, instructional expertise, and adaptability to drive meaningful changes in schools. The findings suggest that graduate-level leadership preparation can shift teacher leaders' mindsets, encouraging agency, reflective practice, and student-centered leadership.

Given participants' emphasis on collaboration and mentorship, leadership programs should integrate peer coaching models that foster professional networks. Strengthening coursework relevance through case-based learning and practical application may also enhance leadership development, ensuring that candidates feel equipped to translate theory into practice.

Additionally, findings on change management suggest a need for greater emphasis on adaptive leadership strategies. Preparing educators to navigate policy shifts, implement reforms, and address systemic challenges can enhance their ability to lead effectively within complex school environments.

Finally, as technology and data literacy continue to shape instructional leadership, professional development initiatives should prioritize digital competency to ensure that teacher leaders are equipped to leverage technological tools for instructional improvement.

Future research could investigate the long-term effects of leadership training, including longitudinal assessments to track the influence of teacher leadership beyond program completion. Examining how graduates implement leadership competencies in real-world settings will provide further insights into how leadership development translates into school-wide and district-level improvements.

References

- Álamo, M., & Falla, D. (2023). Transformational leadership and its relationship with socio-emotional and moral competencies in pre-service teachers. Psychology, Society & Education, 15(1), 48.
- Ambon, J., Alias, B. S., & Mansor, A. N. (2025). Crucial leadership competencies of school *heads* in effective school management: a comprehensive systematic review. *Journal of Education and Learning* (EduLearn), *19*(3), 1216-1224.
- Avalos, B. (2011). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*, 27(1), 10–20. https://doi.org/10.1016/j.tate.2010.08.007
- Bukhari, S. U. P., Ali, K. K., Ashiq, R., Rub, H. A., & Kalhoro, I. A. (2024). Leadership Qualities and the Socio-Emotional Well-being of Learners: A Case Study. *Qlantic Journal of Social Sciences*, 5(2), 232-240.

- Christensen, R., Eichhorn, K., Prestridge, S., Petko, D., Sligte, H., Baker, R., Alayyar, G., & Knezek,
 G. (2018). Supporting Learning Leaders for the Effective Integration of Technology into
 Schools. Technology, Knowledge and Learning, 23(3), 457–472.)
- Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. Teachers College Press.
- Crowther, F. (2009). Developing teacher leaders: How teacher leadership enhances school success (2nd ed.). Corwin Press.
- Darling-Hammond, L., et al. (2017). *Preparing teachers for deeper learning*. Harvard Education Press.
- Day, C., & Gu, Q. (2010). The Impact of Leadership on Student Outcomes: Making a Difference. *Educational Administration Quarterly*.
- Dexter, S., Anderson, R., & Becker, H. J. (2012). Teacher Leadership and Technology Integration. *Journal of Educational Leadership*.
- DuFour, R., DuFour, R., Eaker, R., Many, T., & Mattos, M. (2016). *Learning by doing: A handbook for professional learning communities at work* (3rd ed.). Solution Tree Press.
- Dunn, R. (2020). Adaptive leadership: Leading through complexity. *International Studies in Educational Administration*, 48(1), 31-38.
- Dweck, C. S. (2006). Mindset: The New Psychology of Success. Random House.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255–284.
- Felder, S. R. (2024). An Examination of Educators' Perceptions of Their Role in Cultivating Culturally Responsive, Relevant, and Sustaining Social-Emotional Learning Pedagogy in Secondary Schools (Order No. 31243035). Available from ProQuest Dissertations & Theses Global. (3053900004).

- Fullan, M. (2005). *The new meaning of educational change*. (4th ed.). Routledge. Teachers College Press.
- Fullan, M. (2014). The principal: Three Keys to Maximizing Impact. Jossey-Bass.
- Gumus, S., Bellibaş, M.S., Esen, M., & Gumus, E. (2018). A systematic review of studies on leadership models in educational research from 1980 to 2014. *Educational Management Administration & Leadership*, 46, 25 48.
- Helterbran, V. R. (2010). Teacher leadership: A new framework for promoting success in schools. *Teacher Development*, 14(2), 183-198. https://doi.org/10.1080/13664531003742332
- Hopkins, D. (2023). Unleashing greatness: A strategy for school and system improvement. *Australian Educational Leader*, 42(3), 8–17
- Holowka, P. F. (2020). Collaboration and communication in the leadership of educational technology in Western Canada. *Journal of Systemics, Cybernetics and Informatics*, 18(2), 1–8. https://www.iiisci.org/journal/pdv/sci/pdfs/IP114LL20.pdf1
- Hu, X., & Hancock, A. M. (2024). State of the science: Implicit bias in education 2018–2020. Kirwan Institute for the Study of Race and Ethnicity. https://kirwaninstitute.osu.edu/research/state-science-implicit-bias-education-2018-2020
- Jimenez, J. A., Pasztor, E. M., Chambers, R. M., & Fujii, C. P. (2025). *Social policy and social change* (2nd ed.). SAGE Publications.
- Jung, S. B., & Sheldon, S. (2020). Connecting Dimensions of School Leadership for Partnerships with School and Teacher Practices of Family Engagement. *School Community Journal*, 30(1), 9-32.
- Khoso, F. J., Sahito, Z. H., & Kerio, G. A. (2025). Exploring the role of adaptive leadership in managing change and driving innovation in educational organizations: A case study approach.

- International Journal of Social Sciences Bulletin, 3(1), 883-894. https://theijssb.com/index.php/IJSSB/article/view/411
- Kaput, K. (2018). Evidence for student-centered learning. *Education Evolving*. https://www.educationevolving.org/evidence
- Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). Learning from leadership: Investigating the links to improved student learning. The Wallace Foundation.
- Lugg, C. A., & Shoho, A. R. (2006). Dare public school administrators build a new social order?

 Social justice and the possibly perilous politics of educational leadership. *Journal of Educational Administration*, 44(3), 196–208.
- Mduwile, P., & Komariah, A. (2021). Leadership and administrative skills: a panacea for administrative challenges in schools. *Advan. Social Sci., Educ. Humanities Res*, 526.
- Nappi, L. (2014). Teacher leadership: Empowering teachers for school reform. *Educational Leadership Review*, 19(1), 44-56.
- Puentedura, R. (2013). SAMR: A Model for Transforming Learning with Technology.
- Richardson, L. (2024). The role of educational leadership in enhancing student engagement and learning outcomes. *Academy of Educational Leadership Journal*, 28(S2), 1-2.
- Robinson Carney, C. (2019). Reimaged: The Emotionally Intelligent Instructional Technology Leader (Order No. 13810510). Available from ProQuest Dissertations & Theses Global; Publicly Available Content Database. (2203405145).
- Sharma, R. K., & Sharma, K. (2022). Transformational Style of Leadership and Organisational Citizenship Behaviour: Application in Institutes of Higher Learning. *YMER Digital*, *21*(08), 592-600. The correct full APA 7th edition citation for the article you requested is:

- Shelton, S. A., & Brooks, T. (2019). "We need to get these scores up": A narrative examination of the challenges of teaching literature in the age of standardized testing. *Journal of Language and Literacy Education*, 15(2), 1–17.1
- Shulman, L. S. (2004). The Wisdom of Practice: Essays on Teaching, Learning, and Learning to Teach. Jossey-Bass.
- Smith, C. G. (2021). The experience of becoming a teacher leader [Doctoral dissertation, Utah State University]. DigitalCommons@USU. https://digitalcommons.usu.edu/etd/8262
- Smylie, M. A., & Eckert, J. (2018). Beyond superheroes and advocacy: The pathway of teacher leadership in education reform. *Educational Management Administration & Leadership*, 46(4), 556–577. https://doi.org/10.1177/1741143217694893
- Stanulis, R. N., & Floden, R. E. (2009). Intensive mentoring as a way to help beginning teachers develop balanced instruction. *Journal of Teacher Education*, 60(2), 112–122. https://doi.org/10.1177/0022487108330553
- Uribe-Florez, L., Orozco-Gomez, A., & Garcia-Padilla, S. (2014). Building teacher leadership: A framework for supporting the development of teachers as leaders. *Journal of Educational Administration*, 52(2), 231-249.
- Valli, L., Stefanski, A., & Jacobson, R. (2014). Leadership in school-community partnerships.

 *Procedia-Social and Behavioral Sciences, 141, 110-114.
- Wiliam, D. (2010). Standardized testing and school accountability. *Educational Psychologist*, 45(2), 107–122. https://doi.org/10.1080/00461521003703060
- Woo, Y., Lee, J., & Kim, S. (2023). The impact of political climate on educational leadership: Stress, burnout, and equity challenges. *Educational Administration Quarterly*, 59(3), 412–438. https://doi.org/10.1177/0013161X231155432
- Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*.

- Yukl, G. (2012). Effective leadership behavior: What we know and what questions remain. *Academy of Management Perspectives*, 26(4), 66–85. https://doi.org/10.5465/amp.2012.0088
- Zhao, H., et al. (2019). The Relationship between Self-Regulation and Leadership Effectiveness.

 Journal of Educational Psychology.
- Zimmerman, B. J. (2000). *Attaining Self-Regulation: A Social Cognitive Perspective*. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), Handbook of Self-Regulation. Academic Press.

Transformative Learning Through Immersive Study Abroad: A U.S.-Ireland Teacher Education Initiative

by

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Abstract

The authors developed and launched the first study abroad program to Ireland within the College of Education, enabling preservice and in-service teachers to benefit from immersive international learning experiences. The benefits of such programs are well-established, encompassing a wide range of advantages, including enhanced academic achievement and more refined personal and professional development. International experiences like these can enhance career prospects by encouraging students to adopt a more global perspective. This study abroad initiative aimed to connect theoretical knowledge with practical experience on an extended scale through structured daily reflections and group discussions. Participants cultivated deeper intercultural understanding and advanced their personal and professional growth. Key insights pointed to notable transformations in students' viewpoints regarding educational methodologies, adaptability, and international awareness. This paper examines the implementation of the program, its primary successes, and areas for ongoing improvement, highlighting opportunities for future research-driven enhancements to sustain its lasting impact. (Dianella Secondary College, n.d.)

Key Words: Study Abroad; Educators and International Experience; Global Education; Teacher Professional Development; Intercultural Competence; Experiential Learning

Introduction

International programs promote cultural understanding and global awareness. According to Tanikawa (2023), students who study abroad develop a broader global context, cross-cultural understanding, and a heightened interest in foreign cultures, which positively influences their perspectives on political issues, history, travel, and foreign languages. These immersive experiences contribute to both personal and interpersonal development as students engage with diverse communities and navigate language barriers, fostering increased self-awareness, critical thinking, teamwork, leadership, and problem-solving skills (Jones & Li, 2021). The benefits of international study abroad programs for American students are substantial, particularly for those who might not otherwise have the opportunity to study or travel abroad. Research indicates that these programs contribute to academic growth, as students often demonstrate improved problem-solving abilities, adaptability, and motivation, leading to higher academic performance and on-time graduation rates (Gan & Kang, 2022). Personal growth is evident through the cultivation of resilience, self-confidence, and independence as students navigate unfamiliar environments and cultural settings (NAFSA, 2023). Professional growth also emerges as international exposure may enhance students' future employability, equipping them with enhanced intercultural competencies, global awareness, and practical skills that are highly valued in the workforce (Smith, 2020).

By integrating firsthand cultural experiences with structured educational components, study abroad programs provide invaluable opportunities for holistic growth and learning. As a result, they are increasingly recognized as a critical component of higher education, fostering globally competent graduates who are prepared to engage meaningfully with the world.

Overview of the Study Abroad Program

The Global Educational Practices and Comparative Content Instruction: Ireland and the United States study abroad program was designed to provide graduate students with immersive international experiences in educational and cultural contexts. The program was the first departmental study abroad and was implemented in June 2024. It facilitated academic and cultural exchange between American preservice and in-service teachers and Irish educators. The foundation of this initiative incorporated structured coursework, field research, and reflective learning. Information and academic tasks for pre-, during, and post-course assignments were organized through the university Canvas learning management system, allowing students to engage with materials, readings, and assessments asynchronously before embarking on their study abroad journey. The coursework culminated in an intensive two-week experience in Dublin, Ireland, where participants engaged in field-based research, conducted interviews with local educators, maintained daily reflective journals and engaged in group discussions to assess their evolving perspectives on global education through critical examination. Reflection has been widely recognized as a pedagogical tool for fostering self-awareness and deeper intercultural learning (Mezirow, 1991; Schön, 1983).

Instructional Focus and Academic Components

The program's curriculum was designed to provide students with a comprehensive understanding of Irish education, history, and society. Core topics covered included Irish history, the

GreatFamine, the "Troubles," bilingualism, contemporary socio-political dynamics, and comparative education studies. These topics were strategically chosen to enhance students' historical literacy and cultural awareness, aligning with research indicating that exposure to diverse educational models improves pedagogical adaptability and global competence (Donnelly & Hogan, 2020).

To prepare for their experience, students completed assigned readings on Ireland's educational history, linguistic policies, and socio-political struggles. This foundational knowledge ensurethat participants were intellectually equipped to engage meaningfully with educators and local communities upon arrival. Historical site visits played an essential role in contextualizing students' academic learning. Students visited Trinity College, Malahide Castle, Glasnevin

Cemetery, the EPIC Interactive Museum, Kilmainham Gaol (jail), and the Custom House, each offering distinct insights into Ireland's colonial history, resistance movements, and ongoing reconciliation efforts. Students learned about Irish history, the British domination of the island, and the bravery of the Irish who fought for independence from the British Empire.

Students were shocked to learn about the atrocities, colonial oppression, and systemic violence experienced by the Irish people. Many students drew parallels between Ireland's fight for independence and the struggles of marginalized communities worldwide. Comparative historical reflection has been identified as a key mechanism for developing critical consciousness and fostering cross-cultural empathy in education (Freire, 1970; Banks, 2008). Through guided discussions, participants explored themes of resilience, resistance, and identity, deepening their understanding of historical oppression and social justice within a global framework.

Overall, this study abroad program demonstrated the profound impact of immersive international education on students' cultural awareness, academic engagement, and professional development. By integrating structured coursework with experiential learning, students cultivated intercultural competencies, expanded their global perspectives, and gained firsthand insights into diverse educational philosophies. Future iterations of the program may expand research

methodologies, incorporating more comparative analyses between American and Irish pedagogical practices, to further enrich the academic discourse in international teacher education.

Launching the Study Abroad Program

With varying itineraries, all students arrived safely in Dublin, Ireland, successfully navigating their way to the university, a crucial initial task, as this was the first time many participants had traveled internationally on their own. Upon arrival, students encountered challenges related to accommodation check-in and room registration at the host university, which had not adequately prepared for the group's arrival. Issues, such as a lack of basic amenities, intermittent access to hot water, and unreliable internet connectivity, created difficulties, particularly for students enrolled in online courses concurrently. These logistical hurdles, though stressful, provided an early lesson in adaptability and problem-solving, which are key skills often cultivated through international study programs (Donnelly & Hogan, 2020).

The first evening's group discussion meeting served as an essential introduction to the program, beginning with a formal welcome dinner and the distribution of Leap Cards for public transportation. During this gathering, students familiarized themselves with the program itinerary and participated in an orientation tour of the university campus. This initial meeting was particularly significant, as it allowed students and faculty who had not met before the program to establish rapport and develop a collaborative, dynamic essential for the success of the studyabroad experience. Research emphasizes the importance of early group bonding and discussions in international education settings, as strong interpersonal connections contribute to a more meaningful and supportive learning environment (Jackson, 2018).

Before they departed from the United States, students had been introduced to course materials and assignments via the Canvas learning platform. However, a key component of their academic engagement was the daily reflection journals, designed to encourage critical analysis of their experiences and evolving perspectives. Reflection has been widely recognized as an essential

pedagogical tool, enabling students to synthesize cultural encounters, challenge assumptions, and integrate new knowledge into their broader academic and professional development (Mezirow, 1991; Schön, 1983). These journals would serve not only as a mechanism for self-exploration but also as a foundational element for their final academic papers. Additionally, nightly group discussions over dinner provided opportunities for structured debriefing, allowing students to articulate their insights and engage in collective reflection on their experiences in Ireland.

The Impact of Journaling on American Students Studying Abroad for the First Time: Student Reflection Assignments

Reflective journaling has long been recognized as a crucial tool in fostering deep learning and personal growth in students navigating new environments (Schön, 1983; Mezirow, 1991). Within the context of this study abroad initiative, daily journaling and guided reflection prompts were designed to encourage students to critically examine their first impressions and evolving perspectives throughout their experiences. The recent implementation of this program, aimed at university students who had never traveled outside the United States, provided valuable insights into the benefits of cultural immersion and intellectual growth.

Students were required to maintain daily personal reflections, documenting their observations, emotions, and interpretations as they navigated life in a foreign country. For many, each day presented novel challenges and learning opportunities, including exposure to Ireland's historical narratives and diverse viewpoints. The act of journaling provided a structured mechanism for students to process these encounters and engage in metacognitive analysis, a practice shown to enhance both emotional resilience and cognitive flexibility (Eyler, 2018).

The Benefits of Journaling in Study Abroad Programs

Journaling within study abroad experiences offers numerous educational and psychological

benefits. Research has demonstrated that reflective writing serves as a psychological outlet, allowing students to express and manage emotions, process cultural dissonance, and mitigate experiences of homesickness (Owens, 2023). The ability to articulate thoughts through writing promotes emotional regulation and resilience, equipping students with the tools necessary to navigate unfamiliar environments (Beaven & Wright, 2019). Additionally, journaling facilitates memory retention, ensuring that students preserve key moments of their intercultural experience that might otherwise fade over time (Owens, 2023; Pavlik & Doe, 2020). The recorded reflections serve as both personal archives and academic resources, supporting deeper inquiry into their learning experiences and informing future scholarly work. Moreover, journaling fosters intercultural competence by prompting students to examine cultural contrasts between their home country and the host nation, thereby cultivating empathy and global awareness (Deardorff, 2006).

By integrating reflective writing into their academic routine, students engaged in critical self- analysis and gained new perspectives on global education. This structured approach reinforced the transformative potential of study abroad programs, aligning with theories of experiential learning that emphasize reflection as a central component of student development (Kolb, 1984).

Guided Reflection Prompts

Daily reflection assignments formed the backbone of the study abroad experience, providing students with a framework to evaluate their progress and engagement. Structured prompts guided their reflections, encouraging them to analyze and articulate their thoughts on pivotal aspects of their journey. These prompts included:

- 1. What was the most challenging aspect of your study abroad experience today? How did you adapt to the cultural differences you encountered?
- 2. What did you learn about yourself during this experience?
- 3. How has this experience influenced your future academic or career goals?

 How has this understanding helped you develop a broader global

perspective? How has this experience affected you today and in the long term?

Students recorded their responses daily, engaging in deeper reflection during evening debriefing sessions. These discussions provided an opportunity for students to connect their individual experiences with broader academic themes, facilitating meaningful conversations about intercultural learning. Research suggests that such reflective exercises significantly enhance students' ability to integrate new knowledge, challenge preconceived notions, and develop a more sophisticated understanding of global perspectives (King & Baxter Magolda, 2005).

The most profound realizations shared by students during their reflections centered on the transformative nature of their experiences. As they confronted different worldviews and historical narratives, many found their prior assumptions challenged. The process of actively analyzing cultural differences and societal structures led to significant cognitive and personal growth, reinforcing the impact of journaling as an essential tool in study abroad education. The daily reflection assignments also helped students make sense of the differences between Ireland and the U.S. and were ultimately considered the mainstay of the study abroad experience. In the italics below, we share some of the reflections the students made in response to the journal prompts. They were encouraged to capture their initial reactions, which they could talk about later during the group discussion meetings.

During the day, students jotted daily notes and later reflected upon what they had written. These thoughts and revelations were discussed during evening discussion sessions, and the notes were referred to as daily conversation starters, as participants shared their experiences during the day and as an opportunity to make a more global sense of what they had experienced. The most remarkable revelations that the students shared through their reflections were about the transformations they experienced. Their previous belief systems were challenged as they learned about other ways of life and thought processes.

Irish History

A sample question about Ireland's history and the students' thoughts included the following.

Historical Perspective: How has learning about Ireland's history, such as "The Troubles," changed your perspective on conflict and reconciliation?

Learning about "The Troubles" and "The Great Famine" has profoundly shaped my understanding of Ireland's stance on international policy and its commitment to military neutrality. I understand how history shapes the political destinies of countries.

Language and Communication: How has your experience with the Irish language or bilingualism in Ireland enhanced your understanding of cultural identity?

Studying the methods of teaching Irish has enlightened me on how language choice can shape the portrayal of history and heritage.

The ongoing effort to promote the use of Irish within the educational system is commendable. I can now see the importance both Indigenous Americans as well as immigrants in the U.S. place on the value of preserving their language and culture.

Irish Educational System

Educational Systems Comparison: After comparing the Irish and American educational systems, what elements would you like to see implemented in your home country?

I firmly believe that universities in the U.S. should strive to be as affordable as those in Ireland.

Unlike in the US, Irish schools are not burdened by multiple standardized tests that shape their curricula, allowing for a focus on developing a solid academic foundation.

Personal Development while participating in the Irish Study Abroad Program: What personal qualities or skills have you developed while abroad? *I have gained confidence and determination*.

I've realized that learning can take place anywhere, especially when it happens naturally.

Surviving in a new environment, using public transportation, dealing with different currencies, and adapting to unique cultural attitudes have taught me that I can live comfortably outside the United States.

Interpersonal Relationships: Reflect on the relationships you formed in Ireland; how did they enrich your experience?

The classmates I interacted with were truly remarkable, providing a fantastic opportunity to compare educational experiences.

Their insights throughout the experience were incredibly insightful, shedding light on the disparities within the U.S. system.

Challenges Overcome: Discuss any challenges you face abroad and how you overcame them.

In the beginning, I was concerned that I would regret going on this trip. Within the first few days of the trip, doubts about regretting this experience vanished.

Conversations with my classmates about our experiences made me realize the importance of embracing life's experiences and "sucking the marrow out of life."

Biggest Takeaway:

What is your biggest takeaway from your study abroad experience in Ireland, and how will it influence your future endeavors?

Embrace opportunities as they arise.

This travel abroad experience has motivated me to integrate travel into my life goals and to recognize it as an essential aspect of life rather than merely a luxury.

Irish History and Student Reflections

Historical Perspective: The Impact of Learning About Irish History

Understanding Ireland's complex historical trajectory, particularly The Troubles and The Great Famine, has significantly influenced students' perspectives on conflict resolution and national identity. Ireland's commitment to military neutrality is deeply rooted in its historical experiences,

reinforcing the notion that collective memory and past adversities shape contemporary political decisions (Donnelly & Hogan, 2020). This historical awareness provides valuable insight into the ways nations navigate post-conflict reconciliation, emphasizing the importance of diplomacy and sustained peace-building initiatives (Ruane & Todd, 2019).

Language and Cultural Identity: The Role of Bilingualism in Ireland.

Engaging with the Irish language and bilingualism has deepened students' appreciation for cultural identity. The revival and maintenance of the Irish language in educational institutions reflect a broader effort to preserve national heritage, demonstrating how language serves as a conduit for historical narratives and collective memory (Ó Laoire, 2021). The parallels between Ireland's linguistic preservation efforts and those of Indigenous communities in the United States underscore the universal significance of language as a cornerstone of identity, tradition, and intergenerational knowledge (McCarty, 2018).

Irish Educational System and Comparative Insights Educational Systems Comparison: Lessons for U.S. Institutions

A comparative analysis between the Irish and American educational systems underscores several key differences, particularly in university affordability and curricular structure. Unlike in the U.S., Irish higher education institutions prioritize accessibility, offering significantly lower tuition rates and government-supported funding models that alleviate financial burdens on students (Clancy, 2020). Additionally, the Irish system emphasizes a holistic approach to education, minimizing the reliance on standardized testing in favor of fostering independent thought and academic rigor (Gleeson, 2018). Such policies have contributed to Ireland's strong educational outcomes and may serve as models for reform in the United States, particularly in efforts to reduce student debt and promote broader educational equity.

Personal Development and Transformative Learning

Study abroad experiences foster critical personal growth, equipping students with essential life

skills. Participants reported increased confidence, resilience, and adaptability, which are qualities that align with research on the role of international education's input in strengthening students' self-efficacy and intercultural competence (King & Baxter Magolda, 2005). Immersive learning environments reinforce the idea that education extends beyond traditional classroom settings; instead, meaningful learning occurs through real-world engagement and cultural exploration (Kolb, 1984).

Interpersonal Relationships and Global Perspectives Cultural Exchange and Comparative Education

Interactions with local classmates and educators in Ireland provided a profound opportunity to compare educational experiences and societal values. These dialogues fostered critical reflection, allowing students to challenge preconceived notions about the U.S. education system while gaining a broader appreciation for global pedagogical approaches (Deardorff, 2006). The exchange of ideas and perspectives cultivated cross-cultural empathy, reinforcing the importance of collaborative learning in international education settings (Byram, 1997).

Overcoming Challenges: Student Growth Through Adaptation

Like all transformative learning experiences, studying abroad comes with challenges. Students expressed initial concerns about navigating unfamiliar environments but quickly adapted through peer support and cultural engagement. The process of overcoming uncertainties led to increased self-awareness and a renewed appreciation for experiential learning (Eyler, 2018). In hindsight, students recognized the intrinsic value of embracing discomfort as a catalyst for growth, reinforcing the idea that engaging with diverse perspectives fosters both personal and intellectual development (Mezirow, 1991).

Key Takeaways and Opportunities for Program Enhancement

As study abroad program developers, the authors emphasize the necessity of continual evaluation and feedback mechanisms. Ongoing assessment, including daily reflection exercises, peer

discussions, and post-program evaluations, ensures that students' evolving needs are met and that curricular improvements are informed by firsthand experiences (Beaven & Wright, 2019). The commitment to refining program objectives aligns with best practices in international education, emphasizing continuous improvement, interdisciplinary integration, and student-centered learning (De Wit & Hunter, 2015).

Future initiatives may incorporate expanded research methodologies, comparative studies between Irish and American pedagogical frameworks, and enhanced cross-institutional collaboration to maximize the program's impact. By maintaining a commitment to reflection- driven educational models, the study abroad program can evolve into a sustainable and academically enriching global learning experience.

Growth

As developers of the program, the authors emphasize the need for an evaluation and feedback component to enable the fledgling program to grow and flourish. This goal can be achieved through daily updates and discussions, as well as after reviewing students' final papers. More ways to enhance the program call for continuous improvement, which can be completed through constant collection and analysis of feedback. As a self-check, the authors regularly update program objectives based on students' needs and responses.

Strengthening the Program and Future Planning

The authors discovered through experience that the role the administration plays could be improved to show more support for the study abroad program. Increasing program support would alleviate the burden placed on the program's developers. However, it is clear to the authors that if they want to continue this program, they need to find ways to improve the program for easier delivery. Some ways the authors could improve upon the previous year's program include providing more detailed information during macro and micro planning in specific areas, such as pre-departure and re-entry experiences.

For example, during the pre-departure stage, the authors could enhance the delivery of workshops on Irish culture, history, and intercultural and cross-cultural communication. Better technology integration could be utilized with the use of enhanced digital tools, incorporating virtual reality for pre-departure experiences and digital platforms for reflections and data collection. Regarding the use of technology, some ideas that could be incorporated are the use of concepts suggested below:

Language Learning Apps: Apps like Duolingo or Babbel can help students learn the basics of the local language before and during their stay. Practicing with language apps can boost their confidence and ease their cultural immersion, especially in Ireland, as all street signs and other signs are in Irish.

Virtual Campus Tours: Before departure, students can take virtual tours of their host institutions using 360-degree videos. These virtual visits help them familiarize themselves with the campus layout and facilities, reducing anxiety upon arrival. This activity would have been helpful during pre-departure because the campus was quite large, and it would have given students an idea of where they would be situated on campus and how far the buildings were from their dormitories. Some students were physically unable to walk long distances, and knowing what kind of gear was needed would have helped them prepare before the trip.

Virtual City Tour: This would have been helpful in familiarizing students with the city's unique characteristics, including its important tourist spots, public transportation systems, shopping opportunities, postal and banking services, and other features that would introduce students to the host country prior to their arrival.

Digital Classroom Experience: We could utilize platforms like Zoom or Microsoft Teams for virtual classes and guest lectures. This strategy would enable students to remain connected to their home institution and continue their studies uninterrupted. Our institution uses Canvas as a learning platform, and Zoom is located within our Canvas accounts.

Augmented Reality (AR) and Virtual Reality (VR) Applications: AR and VR can provide immersive experiences, such as virtual museum tours or historical site explorations. These technologies can enhance students' understanding of the local culture and history.

Smart Travel Solutions: Apps like Google Maps, TripIt, or local transportation apps can help students navigate their new environment efficiently. These tools can also provide real-time updates on travel conditions and local events. (Taxi or ride-sharing apps are available and are very useful.)

Online Cultural Immersion Programs: Platforms like CultureReady offer online cultural training and resources to help students understand and adapt to their host culture.

Enhanced Research Capabilities: Provide access to online libraries, databases, and academic journals through platforms like JSTOR or Google Scholar. This action would allow students to conduct research and complete assignments more effectively.

The Pre-departure Orientations: These goals can all be achieved by using Zoom for meetings.

Videos and Websites can augment the pre-departure assignments to offer more reality and authentic videos of the country.

Social Media and Blogging Platforms: We could encourage students to use platforms like Instagram, Twitter, or personal blogs to document their experiences and share them with peers and family. This type of communication helps to foster a sense of community and allows for reflection on their journey. It would also be a terrific opportunity to entice students to become excited about the next travel abroad session.

Participants in the Irish Study Abroad Program discovered that the most effective social media tool for communication within the community was WhatsApp. The WhatsApp tool appealed to most participants due to its focus on privacy, ease of use, global availability, and free service. WhatsApp can be accessed with only a phone number, unlike other social media apps like

Messenger, which rely on Facebook accounts. Unfortunately, one student refused to open What's App on her phone, and this made communication between and among participants very difficult. In hindsight, we recognize that all students must be willing to download the necessary apps and that all personal devices must be updated with the latest software updates. Internet connections (both personal and university systems) must be functioning to complete work and studies.

Strengthening the Program And Future Planning Re-entry Preparation

As students return from their study abroad experiences, it is crucial to prepare them for re-entry. This step involves connecting students with alumni from previous study abroad programs to share their experiences and prepare for future opportunities back in the United States. Study abroad alumni can offer invaluable insights and practical advice that help students navigate the transition back to their home country. Students will make more sense of their overall experiences after returning to the United States, and the experiences will make way for new revelations.

Many students mentioned that the time abroad in Ireland proved to be transformational for them. Additional ideas for strengthening the study abroad program are suggested below:

Ongoing Mentorship

Ongoing mentorship is vital for sustained growth and reflection of the program. Organizing re- entry workshops allows students to reflect on their experiences and discuss how to apply their learning once they are home. These workshops provide a structured environment for reflection and integration of their newly acquired knowledge and skills.

Online Discussion Forums

Creating online discussion forums can offer a platform for continuous dialogue and support among study-abroad participants. These forums allow students to stay connected, share experiences and photos, and seek advice long after their return.

Presentations

Encouraging students to present their study abroad experiences to the campus community can amplify the impact of their journey. Presentations can take the form of formal talks, poster sessions, or informal discussions, helping students articulate their learning and inspire others to consider studying abroad.

Presentations in Ireland

Students could be required to make presentations as part of their assignments in Ireland. This idea could take the form of a mini-conference, providing them with valuable experience in presenting at national or international professional conferences. The study abroad leaders can encourage and teach their students how to present with them at conferences. This mentorship is excellent for both the leader and the student.

Partner with Additional Institutions

To enhance the study abroad experience, we recommend partnering with additional Irish universities and K-12 schools. Establishing connections between university graduate students from the U.S. and Ireland can foster academic collaboration and cultural exchange.

Research Focus

Identification of Research Opportunities

One of the driving forces that motivated many participants in the Irish Study Abroad program was the prospect of exploring research opportunities in a different culture or country. The needs of graduate students and K-12 teacher-researchers should drive research opportunities.

Participants must communicate with their American research professors and dissertation committees to help graduate students identify and support these opportunities, ensuring they align with current academic and professional interests.

Sharing Findings

Study Abroad participants and their professors should be encouraged to share their research

findings, generated from study abroad opportunities, at professional gatherings. This includes presenting at conferences and publishing in academic journals. Sharing knowledge and discoveries not only contributes to the academic community but also enhances the program's reputation.

Developing a Program Website

A dedicated program website can serve as a hub for all information related to the Irish Study Abroad Program. It can include resources, research findings, alumni testimonials, and program updates, ensuring accessibility and engagement for all stakeholders.

Future Vision for Study Abroad Programs

Looking ahead, the program aims to set long-term goals that ensure sustainability and continuous improvement. Emphasizing innovation and adaptation will keep the program relevant and impactful. Several suggestions below may also encourage the administration to be more supportive of the program.

Call to Action: Strengthening the Program Through Logistics and Pedagogical Refinement

To ensure the long-term sustainability and effectiveness of the Global Educational Practices and Comparative Content Instruction: Ireland and the United States study abroad program, a comprehensive strategy integrating logistical preparedness, pedagogical innovation, and stakeholder engagement is essential. This initiative has demonstrated significant academic and personal benefits for students, but continued refinement will be necessary to enhance its impact and accessibility.

Enhancing Logistical Efficiency

Strong logistical planning is a cornerstone of a successful study abroad program. Early coordination with host institutions, accommodation providers, and transportation networks will help mitigate challenges students face during initial arrival, including unprepared housing

conditions, limited access to basic amenities, and internet connectivity issues. By streamlining pre-departure briefings and ensuring clear communication with local partners, future cohorts can experience smoother transitions into international learning environments.

Additionally, structured orientation sessions upon arrival—incorporating guided campus tours, detailed program itineraries, and intercultural adaptability workshops—can provide students with the knowledge and confidence needed to navigate new environments. Empirical studies on study abroad logistics highlight the importance of pre-travel workshops and strategic planning, which have been shown to reduce student stress and increase program retention rates (Byram, 1997; De Wit & Hunter, 2015).

Strengthening Pedagogical Foundations

A well-designed pedagogical framework ensures that study abroad experiences are academically rigorous while fostering critical thinking and cross-cultural awareness. The integration of daily reflection journals, guided discussions, and experiential site visits proved to be highly effective in engaging students with Irish history, educational systems, and national identity. Research underscores the value of reflection-driven pedagogy, with studies demonstrating that structured journaling enhances knowledge retention, self-awareness, and global competency (Mezirow,1991; Eyler, 2018).

Future iterations of the program should expand upon comparative education modules, incorporating deeper analyses of curriculum design, assessment policies, and cultural influences on pedagogy between Ireland and the United States. Additionally, refining assessment strategies—such as including pre- and post-program evaluations measuring students' intercultural competence and academic growth—will help track longitudinal impacts and further validate the program's effectiveness as a research-based educational initiative.

Stakeholder Engagement and Long-Term Program Growth

Encouraging stakeholder involvement is essential for expanding the program's reach, securing

funding, and sustaining its long-term development. Alumni who have participated in the program can serve as mentors and ambassadors, providing testimonials and insights that enhance recruitment efforts and strengthen institutional commitment. Faculty collaboration is also critical, as integrating internationalized curriculum elements into home university courses will create continuity between study abroad learning and domestic academic experiences.

The collection and analysis of student feedback through structured evaluations will guide program enhancements, ensuring that future cohorts benefit from continuous logistical improvements and pedagogical refinements. By prioritizing data-driven assessment and research-based teaching models, this initiative can evolve into a cornerstone of international teacher education, equipping students with the skills and perspectives necessary to thrive in a globally interconnected world.

Conclusion

This study abroad program increased our graduate students' personal development in historical knowledge and cultural resilience, which can lead to increased comprehension of the needs of their own multicultural students' backgrounds. International learning experiences can add to the development and shaping of globally competent graduates.

Through administrative support, enhanced logistical planning, pedagogical innovation, and sustained stakeholder engagement, the study abroad program can build upon its successes and create lasting impacts. By implementing these strategies, future cohorts of students will benefit from an academically enriching, well-structured, and transformative international experience that prepares them to become informed and globally competent educators.

References

- Banks, J. A. (2008). Diversity and citizenship education: Global perspectives. Jossey-Bass.
- Beaven, A., & Wright, C. (2019). Reflective practice in study abroad programs: Learning through cultural engagement. *Journal of International Education*, 23(1), 34–52.
- Byram, M. (1997). Teaching and assessing intercultural communicative competence.

 Multilingual Matters.
- Clancy, P. (2020). Access to higher education in Ireland: Policies and practices. *Education Policy Research Journal*, 12(3), 214–231.
- De Wit, H., & Hunter, F. (2015). Internationalization of higher education: European perspectives. *International Journal of Higher Education*, 10(1), 32–48.
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241-266. https://doi.org/10.1177/1028315306287002
- Dianella Secondary College. (n.d.). Technologies & VET. Retrieved June 7, 2025, from https://dsc.wa.edu.au/teaching-and-learning/technologies-vet/
- Donnelly, C., & Hogan, P. (2020). Education and identity in Ireland: Historical perspectives and contemporary challenges. Routledge.
- Eyler, J. (2018). The power of experiential education: A review of learning through reflection. *Experiential Learning Journal*, 15(4), 198–217.
- Freire, P. (1970). Pedagogy of the oppressed. Herder and Herder.
 Gan, X., & Kang, L. (2022). The impact of study abroad programs on student academic performance and graduation rates: A longitudinal study. *Journal of International Education Research*, 25(3), 215-230.

- Gleeson, J. (2018). Curricular innovation and assessment in Irish education. Irish Educational Review, 29(2), 167–188.
- Jones, M., & Li, S. (2021). Cross-cultural learning and personal growth: The transformative effects of international education programs. Global Education Studies, 18(2), 89-104.
- King, P. M., & Baxter Magolda, M. B. (2005). A developmental model of intercultural maturity.

 Journal of College Student Development, 46(6), 571–592.
- Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice-Hall.
- McCarty, T. L. (2018). Indigenous language revitalization and education: Comparative perspectives. Language Policy, 14(1), 1–30.
- Mezirow, J. (1991). Transformative dimensions of adult learning. Jossey-Bass.
- NAFSA. (2023). Building global competence: The role of study abroad in student employability.
- NAFSA: Association of International Educators. Retrieved from https://www.nafsa.org
- Ó Laoire, M. (2021). Language policy and education in Ireland: Shaping national identity through bilingualism. International Journal of Linguistic Studies, 27(4), 312–330.
- Owens, R. (2023). Journaling as a tool for emotional resilience in study abroad experiences.

 International Journal of Student Development, 29(2), 78–91.
- Pavlik, J., & Doe, L. (2020). Memory and Meaning-Making: The Lasting Impact of Study Abroad Reflections. Study Abroad Research Journal, 18(3), 209–227.
- Ruane, J., & Todd, J. (2019). Ethnic conflict and reconciliation in Northern Ireland. Oxford University Schön, D. A. (1983). The reflective practitioner: How professionals think in action. Basic Books.
- Smith, J. (2020). Employability and global awareness: How international programs shape career readiness. *International Journal of Higher Education*, 15(4), 301–315.

Tanikawa, Y. (2023). Broadening perspectives: The influence of study abroad on students' worldviews. *International Review of Education*, 29(1), 45–67

The Impact of Dedicated Emergency Managers on Teachers' Perceptions of School Resilience: A Quantitative Study

by

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Abstract

The purpose of this quantitative study was to examine the relationship between the presence of a dedicated emergency manager and teachers' perceptions of various dimensions of school resilience, as measured by the School Resilience Assessment Questionnaire (SRAQ). The study sample consisted of two school districts in Southeast Texas, one with a dedicated emergency manager and the other without one. The sample population includes a total of 77 survey respondents. An Independent Samples T-Test was used to test for differences in teachers' perceptions of resilience between the district with a dedicated emergency manager (n = 36) and the district without an emergency manager (n = 41) across four SRAQ subscales. The study had four research questions that correlated to the four SRAQ subscales. Results revealed no statistically significant differences across all four subscales. Teachers without an emergency manager reported slightly higher perceptions in all four subscales: Functional, Education, and Architecture and Equipment + Safety. These findings suggest that the presence of a dedicated emergency manager may not significantly influence teachers' perceptions of school resilience. Future research with larger samples and additional contextual variables is recommended to further explore the impact of emergency managers on school resilience.

Keywords: school resilience, school safety, emergency management, emergency manager

Introduction

Ensuring the safety and resilience of K–12 schools is crucial, particularly given the increasing frequency of natural disasters and school violence. Between 2000 and 2021, 46 active shooter events in elementary and secondary schools resulted in 276 casualties (Irwin et al., 2023), while disasters since 1980 have led to over \$1 billion in damages (Smith, 2020). Though much research has focused on school preparedness, few studies have explored teachers' perceptions despite their frontline role in crisis response and recovery. School safety increasingly involves the role of dedicated emergency managers, whose leadership can influence preparedness across mitigation, response, and recovery phases (Jensen & Kirkpatrick, 2022). However, research on how this leadership structure affects

teachers' views of resilience remains limited. Mutch (2014) noted the need for deeper inquiry into how leadership roles shape school recovery and readiness. This study addresses that gap by exploring how the presence of an emergency manager affects teachers' confidence in their school's preparedness and resilience, helping to inform future strategies that center on leadership and frontline perspectives.

The purpose of this quantitative study was to examine the relationship between the presence of a dedicated emergency manager and teachers' perceptions of various dimensions of school resilience, as measured by the School Resilience Assessment Questionnaire (SRAQ)(Mirzaei et al., 2021). The study compared teachers' perceptions of resilience in schools with a dedicated emergency manager versus schools without a dedicated emergency manager in K-12 public schools within the Southeast Houston, Texas region. The subsequent research questions were used to lead the study:

- RQ1. Is there a significant difference between the perceptions of teachers regarding the role of a dedicated emergency manager in a school's effectiveness in responding to emergencies?
- RQ2. Is there a significant difference between the perceptions of teachers regarding the impact of architectural resilience factors, such as building design and safety measures, on school safety and disaster preparedness in schools with and without a dedicated emergency manager?
- RQ3. Is there a significant difference between the perceptions of teachers regarding the availability and adequacy of emergency equipment in contributing to school resilience in schools with and without a dedicated emergency manager?
- RQ4. Is there a significant difference between the perceptions of teachers regarding the role of emergency preparedness education in enhancing school resilience in schools with and without a dedicated emergency manager?

Literature Review

Evolution of Emergency Management and School Preparedness

Disasters can affect any community, regardless of size or location, often demanding coordinated responses across multiple agencies (Bajracharya & Hastings, 2020; Ryan et al., 2020). Historically, responses to disasters have been fragmented, lacking the necessary cooperation among local, state, and federal agencies (National Governors Association, 1979). In response to these inefficiencies, the federal government consolidated emergency response functions in the 1970s with the creation of the Federal Emergency Management Agency (FEMA) (Haddow et al., 2010).

In the decades that followed, emergency management adopted an "all-hazards" approach, expanding beyond natural disasters to include technological and human-made hazards. This evolution laid the groundwork for more integrated frameworks, such as the Integrated Emergency Management System (IEMS), which promoted a comprehensive and proactive approach to managing risks (Haddow et al., 2010).

School Resilience and Vulnerabilities

A student's perception of safety is essential to their well-being and educational success (Yablon & Itzhaky, 2015). Resilience, a multifaceted concept, is commonly understood as the ability of a system to return to its normal condition after disruption (Hosseini et al., 2016). The United Nations International Strategy for Disaster Reduction (UNISDR, 2009) further defines resilience as the capacity of a community or system to resist, absorb, and recover efficiently from hazardous events.

Resilience in schools includes structural and non-structural elements, organizational processes, and community engagement (Mirzaei et al., 2019). Schools serve as centers of learning and as vital community assets before, during, and after disasters (Hull, 2012). Key components of resilience include communication, social capital, and adaptive learning (Castleden et al., 2011; Son et al., 2020). A systems approach to preparedness, including planning, safe facilities, and training, is

essential (Carlson et al., 2012; Shah et al., 2018). When integrated into K-12 education, resilience frameworks can positively shape youth development and community outcomes (Masten et al., 2008).

Although over 50 million children attend school daily in the U.S. (Kearns, 2021), schools are vulnerable to natural hazards that disrupt academics and damage infrastructure (Lai et al., 2016; Convery et al., 2014). Inadequate awareness of these risks can hinder readiness (Convery et al., 2014). Effective emergency response requires understanding local hazards and planning accordingly (Nickerson et al., 2006). Schools with designated preparedness coordinators and funding are generally more prepared (Horton et al., 2023; Rebmann et al., 2012). Leadership plays a critical role by prioritizing drills and simulations that promote a culture of safety.

School readiness is dynamic and evolves with new threats. Resilient schools actively reduce vulnerabilities and improve operational capacity (Mirzaei et al., 2020). Involving stakeholders like school nurses ensures health-related emergencies are considered in planning (Flaherty, 2012; Rebmann et al., 2012). Continuous adaptation is essential to keeping preparedness efforts effective.

Leadership, Organizational Culture, and Community Engagement

Strong leadership, organizational culture, and community engagement are foundational elements of school resilience, particularly in the context of crisis preparedness and response. Effective school leadership extends beyond routine management to encompass clear communication, rapid decision-making, and cross-system coordination, all essential during emergencies (Reid, 2020; Klein & Schwanenberg, 2022; Knebel et al., 2012). Training and developing critical competencies, including procedural knowledge, decisiveness, and effective communication, enhances leaders' readiness to manage emergencies (Henstra, 2010; Albanese & Paturas, 2018; Gill et al., 2021; Hayes & Omodei, 2011). Transformational leadership styles, characterized by support, clarity, and optimism, further strengthen schools' crisis responses (Zhao & Jowett, 2022).

Community resilience relies on collaborative leadership, where trust, communication, and stakeholder participation are central to cultivating preparedness and effective governance (Bodas et

al., 2022a; Antronico et al., 2020). As pivotal community hubs, schools play a significant role in preparedness and recovery efforts (Haig, 2014; Cedering & Wihlborg, 2020; Mutch, 2016). Inclusive planning that engages educators, law enforcement, and local officials leads to enhanced preparedness outcomes, especially when structured frameworks like ICS and NIMS are implemented to align with best practices (Kano et al., 2007; Horton et al., 2023; Lopez et al., 2019; Nickerson et al., 2006; Bigley & Roberts, 2001). Ultimately, effective leaders nurture a culture of preparedness within their organizations through ongoing training, critical reflection, and continuous improvement (FEMA, 2013; Shah et al., 2018; Nicogossian et al., 2011).

Infrastructure and Physical Safety

School infrastructure plays a critical role in determining a school's capacity to withstand and recover from emergencies. Architectural design, building materials, and safety features significantly impact a school's resilience (Campos, 2020; Mirzaei et al., 2019). A holistic approach, including structural and non-structural elements, functional systems, and site selection, is necessary to build resilient schools (Mirzaei et al., 2021; Agarwal et al., 2023; Ronoh, 2018).

Several studies highlight global infrastructure vulnerabilities. In regions such as Kabul and Nepal, poor building codes and outdated construction methods leave schools highly vulnerable to seismic events. Retrofitting and enforcing building standards are key strategies to improve safety (Naseri & Kang, 2017; Dixit et al., 2014). Santa-Cruz et al. (2016) and Vahdat and Smith (2014) further emphasize the need for upgrading facilities to meet modern safety standards, especially in disaster-prone areas.

Resilient infrastructure also supports the broader role of schools as community shelters and crisis response centers. Secure, accessible facilities are essential during mass-casualty events and natural disasters (Graham et al., 2006; Oktari et al., 2018). Features such as reinforced structures, clear evacuation routes, and emergency stations enhance both preparedness and response effectiveness (Sarwono & Qolbi, 2024; Ingaramo & Pascale, 2020). Ultimately, infrastructure alone is

not enough; schools must also be able to adapt and mobilize resources in real-time. Still, investing in safe, well-designed buildings provides a strong foundation for school emergency resilience.

Resources, Training, and Preparedness Gaps

Resource availability and effective utilization are essential for school emergency preparedness. Schools must plan, stockpile, and manage supplies to ensure safety and continuity during crises. Proper management directly impacts a school's ability to respond and recover (Nganji, 2018; Acido & Kilongkilong, 2022).

Studies show that many schools lack sufficient emergency supplies, plans, or funding. Horton et al. (2023), Rebmann et al. (2016), and Kano and Bourque (2007) found widespread gaps in disaster preparedness, particularly regarding supply readiness. Cannon et al. (2022) similarly reported that inadequate planning hindered post-disaster recovery efforts following major hurricanes.

Physical resources such as medical kits, AEDs, and backup power are also critical. Khan (2023) and Zusman and Marghella (2013) emphasize the importance of maintaining life-saving equipment and training staff in its use. Studies in disaster-affected areas, including Japan and Afghanistan, highlight the need for food stockpiles, waste planning, and infrastructure to support basic needs (Amitani et al., 2017; Naseri & Kang, 2017).

Funding remains a primary barrier to preparedness. Rebmann et al. (2016) and the Federal Commission on School Safety (2018) stress that without adequate financial support, schools struggle to maintain training, infrastructure, and emergency supplies. Research across sectors shows that public-private partnerships and federal incentive programs, such as FEMA's Community Rating System, can help overcome these barriers (Lurie et al., 2013). Investments in resilience yield long-term economic and social benefits even without a disaster (Fung & Helgeson, 2017; Tanner et al., 2016). Prioritizing preparedness today builds stronger, more adaptable schools for the future.

Methodology

Research Design

This study employed a cross-sectional survey design, which captures data at a single point in time and is effective for assessing attitudes, beliefs, and opinions (Creswell & Guetterman, 2019). The design was chosen to examine teachers' perceptions of school resilience in the presence of a dedicated emergency manager.

A non-probability convenience sampling method was employed, targeting teachers from two school districts, one with a dedicated emergency manager and one without. Each district provided teacher contact information or directly distributed the survey to facilitate access to the sample population.

This approach enabled a focused comparison of perceptions without relying on snowball sampling. The aim was to capture a snapshot of how teachers view resilience efforts in their respective districts, shedding light on the potential influence of emergency management leadership structures.

Participants and Setting

The sample for this study consisted of teachers from two K–12 public school districts in Texas, one with a dedicated emergency manager and one without. Teachers were selected as the target population due to their critical role in implementing emergency preparedness measures and shaping school resilience. Participants included teachers across grade levels (elementary, middle, and high school) with varying years of experience, providing diverse perspectives on resilience practices.

Following approval from district administrations, recruitment was conducted via email invitations containing a link to the online survey. Teachers were required to review and agree to an informed consent form before participating. Only currently employed teachers in one of the two selected districts were eligible for participation. Findings may not extend to all Texas teachers or schools in other regions. Additionally, the voluntary nature of participation introduces self-selection bias, as those more engaged in emergency preparedness may be more inclined to respond.

Data Collection

This study was approved by the Lamar University Institutional Review Board (IRB). Data were collected from teachers in two Texas K–12 public school districts, one with a dedicated emergency manager and one without, to enable a targeted comparison of teacher perceptions of school resilience.

Prior to data collection, permission was obtained from both districts. In the district with an emergency manager, the researcher was provided teacher email addresses to distribute the survey directly. In the district without an emergency manager, the survey was shared through internal district email distribution lists. These procedures ensured adherence to district policies and minimized disruption to staff.

Teachers were invited to complete an anonymous online survey after reviewing an informed consent form, which outlined the study's purpose, voluntary participation, and data use. No personal identifiers were collected by the survey platform (Qualtrics), preserving participant anonymity. All survey responses were stored securely in a password-protected cloud system, accessible only to the researcher. The data was cleaned and prepared for analysis to explore differences in perceptions between the two districts.

Data Analysis

After data collection, responses were exported to Excel for initial coding, cleaning, and issue identification, then imported into SPSS for statistical analysis. Descriptive statistics were generated to summarize the dataset. To address each research question, independent samples t-tests were conducted to compare mean responses between teachers from districts with a dedicated emergency manager and those without. A significance level of .05 was used to determine statistical relevance.

Separate t-tests were used to evaluate differences in teachers' perceptions across four dimensions:

- Effectiveness in emergency response
- Architectural resilience

- Adequacy of emergency equipment
- Emergency preparedness education

The independent variable was the presence of a dedicated emergency manager in the school district (yes or no), determined using public sources such as district websites or state databases.

The dependent variables were teachers' perceptions of school resilience, measured using the School Resilience Assessment Questionnaire (SRAQ) (Mirzaei et al., 2021). The SRAQ includes four subscales: Functional (Effect_Mean), Education (Effect_Educ), Architecture (Effect_Arch), and Equipment + Safety (Effect_SafetyEquip). These data points were used to assess the relationship between emergency management leadership and perceived school resilience.

Findings

Survey data from 77 teachers across two K–12 public school districts in Southeast Houston, one with a dedicated emergency manager and one without, were analyzed to compare perceptions of school resilience. After excluding responses with excessive missing data, final analyses included 41 respondents from the district without a dedicated emergency manager and 36 from the district with one.

The presence of a dedicated emergency manager served as the independent variable (coded dichotomously), and teacher perceptions were measured using the four subscales of the School Resilience Assessment Questionnaire (SRAQ). Independent samples t-tests were conducted to address each of the study's four research questions.

RO₁

Is there a significant difference between the perceptions of teachers regarding the role of a dedicated emergency manager in a school's effectiveness in responding to emergencies?

To address this, responses from SRAQ items 20–30 (functional subscale; Effect_Mean) were analyzed. Results showed no statistically significant difference in perceptions between teachers in districts with a dedicated emergency manager and those without (Table 1). Surprisingly, teachers in

the district without a dedicated emergency manager reported slightly higher perceptions of effectiveness. The effect size was small (d = -0.42), and the null hypothesis was not rejected.

Independent Samples T-Test for Functional Subscale (Effect Mean) by Emergency Manager Presence

Group	n	M	SD	t	df	р	Cohen's d
Emergency	36	4.0	0.67	-1.85	75	0.068	-0.422
Manager							
No Emergency Manager	41	4.29	0.69				

^{*}p < .05, **p<.01

RQ2

Table 1

Do teachers' perceptions of architectural resilience factors differ between schools with and without a dedicated emergency manager?

Analysis of SRAQ items 13-19 (Effect_Arch) revealed no significant difference between groups (Table 2). Teachers in the district without an emergency manager reported slightly higher perceptions of building design and safety, with a small effect size (d = -0.28). The null hypothesis was not rejected.

 Table 2

 Independent Samples T-Test for Architectural Subscale (Effect_Arch) by Emergency Manager

 Presence

Group	n	M	SD	t	df	р	Cohen's d
Emergency	36	4.23	0.69	-1.22	75	.227	-0.28
Manager							
No Emergency	41	4.41	0.57				
Manager							

^{*}p < .05, **p<.01

RO3

Is there a significant difference in teachers' perceptions of emergency equipment availability and adequacy between schools with and without a dedicated emergency manager?

Analysis of SRAQ items 2–8 (Effect_SafetyEquip) showed no significant difference between groups (Table 3). Teachers in the district without an emergency manager reported slightly higher perceptions, but the effect size was negligible (d = 0.06). The null hypothesis was not rejected.

 Table 3

 Independent Samples T-Test for Safety and the Equipment Subscale (Effect_SafetyEquip) by Emergency Manager Presence

Group	n	M	SD	t	df	р	Cohen's d
Emergency	36	4.39	0.54	-0.28	75	0.78	0.06
Manager							
No Emergency	41	4.42	0.49				
<u>Manager</u>							

^{*}p < .05, **p<.01

RQ4

Do teachers' perceptions of emergency preparedness education differ between schools with and without a dedicated emergency manager?

Responses to SRAQ items 9–12 (Effect_Educ) showed no significant difference between groups (Table 4). Teachers in the district without an emergency manager reported slightly higher perceptions of training, but the effect size was small (d = -0.12). The null hypothesis was not rejected.

 Table 4

 Independent Samples T-Test for Education Subscale (Effect Educ) by Emergency Manager Presence

Group	n	M	SD	t	df	р	Cohen's d
Emergency	36	3.87	1.14	-0.50	66.46	.62	-0.12
Manager							
No Emergency	41	3.99	0.91				
Manager							

^{*}p < .05, **p<.01

Implications

This study examined whether the presence of a dedicated emergency manager influenced teachers' perceptions of school resilience. The lack of significant differences suggests that simply appointing an emergency manager may not directly enhance teachers' perception of preparedness.

While prior research highlights the benefits of having emergency managers, particularly in coordinating preparedness education and resource availability (Kano & Bourque, 2008; Rebmann et al., 2012), this study found that teachers in the district without an emergency manager reported

slightly higher perceptions across most dimensions. This suggests the need for a more comprehensive and integrated approach to building school resilience.

Districts should consider enhancing emergency preparedness through systemic strategies, such as improving staff training frequency and quality (Mutch, 2014), fostering a culture that prioritizes safety, and strengthening internal communication around emergency protocols. Leadership engagement is also critical; teachers are more likely to feel confident and prepared when district and school leaders actively support resilience efforts.

Finally, districts should assess resource allocation for emergency equipment and infrastructure improvements, recognizing that the presence of an emergency manager alone may not necessarily drive changes in perception. A holistic approach that includes leadership, culture, communication, and training may be more effective in shaping a resilient school environment.

Recommendations for Future Research

Given the small effect sizes and lack of statistically significant findings, further research is warranted to explore the role of dedicated emergency managers in school resilience. First, future studies should involve larger sample sizes to increase statistical power, as this study's sample (n = 77) may have been too limited to detect meaningful differences.

Generalizability was another constraint. This study focused on two districts in Southeast Houston, which may not reflect broader educational contexts. Future research should include a more diverse sample of districts across various regions, considering factors such as district size, socioeconomic conditions, local emergency management practices, and funding levels.

Additionally, the use of self-reported perceptions introduces potential bias. Teachers' views may not fully represent actual preparedness levels, as perceptions can be shaped by individual experiences or limited awareness of protocols. Future studies could include objective measures of preparedness alongside perception-based data.

The cross-sectional design also limits understanding of changes over time. A longitudinal approach may reveal whether the impact of a dedicated emergency manager becomes more evident with sustained implementation of preparedness strategies.

Researchers should also explore broader systemic factors such as organizational culture, training frequency and quality, communication effectiveness, and leadership involvement. Examining how specific emergency management activities, like staff training, drill implementation, or past incident experience, shape teacher perceptions would offer deeper insights. Qualitative studies could further enrich understanding by capturing the lived experiences of teachers and exploring why the presence of an emergency manager may not influence perceptions as expected.

Conclusion

This study examined whether the presence of a dedicated emergency manager influenced teachers' perceptions of school resilience across four dimensions: functional, educational, architectural, and safety + emergency equipment. Findings revealed no statistically significant differences between schools with and without an emergency manager, suggesting that this role alone may not substantially shape teacher perceptions.

These results point to the importance of broader systemic factors, such as organizational culture, leadership engagement, and the quality and frequency of emergency training, as potential drivers of perceived resilience. While emergency managers may support preparedness efforts, their presence may not directly influence how frontline educators assess readiness.

Despite its limitations, including a small sample and limited generalizability, this study contributes to the growing body of research on emergency management in educational contexts. It underscores the need for a more holistic approach to improving school resilience, integrating leadership, communication, training, and resource strategies. Future research should continue to explore these dynamics to inform more effective practices and ensure that schools are better equipped to protect students and staff in an emergency.

References

- Acido, J. V., & Kilongkilong, D. A. (2022). Resource management practices towards sustainable support system during pandemic. *International Journal of Educational Management and Development Studies*, *3*(4), 19–42. https://doi.org/10.53378/352930
- Agarwal, J., Parajuli, R., Xanthou, M., & Sextos, A. (2023). Safer and resilient schools in seismic regions: A systems perspective. *Civil Engineering and Environmental Systems*, 40(3), 129–149. https://doi.org/10.1080/10286608.2023.2289568
- Albanese, J., & Paturas, J. (2018). The importance of critical thinking skills in disaster management.

 **Journal of Business Continuity & Emergency Planning, 11(4), 326.*

 https://doi.org/10.69554/tssx1591
- Amitani, Y., Sudo, N., Tsuboyama-Kasaoka, N., Ishikawa, F., & Sako, K. (2017). Meal services after the great east Japan earthquake at nursery schools in a tsunami-affected town: Focus group observations. *Asia Pacific Journal of Clinical Nutrition*, 26(2), 308–312. https://doi.org/10.6133/apjcn.012016.05
- Antronico, L., De Pascale, F., Coscarelli, R., & Gullà, G. (2020). Landslide risk perception, social vulnerability and community resilience: The case study of maierato (calabria, southern italy).

 International Journal of Disaster Risk Reduction, 46, 101529.

 https://doi.org/10.1016/j.ijdrr.2020.101529
- Bajracharya, B., & Hastings, P. (2020). Stakeholder engagement for disaster management in master-planned communities. *Australian Journal of Emergency Management*, *35*(3), 41–47. https://knowledge.aidr.org.au/resources/ajem-july-2020-stakeholder-engagement-for-disaster-management-in-master-planned-communities/

- Bigley, G. A., & Roberts, K. H. (2001). The incident command system: High-reliability organizing for complex and volatile task environments. *Academy of Management Journal*, 44(6), 1281–1299. https://doi.org/10.2307/3069401
- Bodas, M., Peleg, K., Stolero, N., & Adini, B. (2022a). Risk perception of natural and human-made disasterscross sectional study in eight countries in Europe and beyond. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.825985
- Campos, P. (2020). Resilience, education and architecture: The proactive and "educational" dimensions of the spaces of formation. *International Journal of Disaster Risk Reduction*, 43, 101391. https://doi.org/10.1016/j.ijdrr.2019.101391
- Cannon, S. R., Davis, C. R., & Long, R. (2022). Using an emergency plan to combat teacher burnout following a natural hazard. *Educational Policy*, 37(6), 1603–1636. https://doi.org/10.1177/08959048221120273
- Carlson, L., Bassett, G., Buehring, W., Collins, M., Folga, S., Haffenden, B., Petit, F., Phillips, J., Verner, D., & Whitfield, R. (2012). *Resilience: Theory and applications* [Report]. https://publications.anl.gov/anlpubs/2012/02/72218.pdf
- Castleden, M., McKee, M., Murray, V., & Leonardi, G. (2011). Resilience thinking in health protection. *Journal of Public Health*, *33*(3), 369–377. https://doi.org/10.1093/pubmed/fdr027
- Cedering, M., & Wihlborg, E. (2020). Village schools as a hub in the community a time-geographical analysis of the closing of two rural schools in southern Sweden. *Journal of Rural Studies*, 80, 606–617. https://doi.org/10.1016/j.jrurstud.2020.09.007
- Convery, I., Carroll, B., & Balogh, R. (2014). Flooding and schools: Experiences in Hull in 2007. *Disasters*, 39(1), 146–165. https://doi.org/10.1111/disa.12091
- Creswell, J. W., & Guetterman, T. C. (2018). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.). Pearson Education (US).

- Dixit, A., Yatabe, R., Dahal, R., & Bhandary, N. (2013). Public school earthquake safety program in Nepal. *Geomatics, Natural Hazards and Risk*, 5(4), 293–319. https://doi.org/10.1080/19475705.2013.806363
- Flaherty, E. A. (2012). Emergency preparedness. *NASN School Nurse*, 28(4), 192–196. https://doi.org/10.1177/1942602x12466431
- Fung, J. F., & Helgeson, J. F. (2017). Defining the resilience dividend: Accounting for co-benefits of resilience planning (NIST Technical Note 1959) [Report]. https://doi.org/10.6028/NIST.TN.1959
- Graham, J., Shirm, S., Liggin, R., Aitken, M. E., & Dick, R. (2006). Mass-casualty events at schools:

 A national preparedness survey. *Pediatrics*, *117*(1), e8–e15.

 https://doi.org/10.1542/peds.2005-0927
- Haddow, G., Bullock, J., & Coppola, D. P. (2010). *Introduction to emergency management*. Butterworth-heinemann.
- Haig, T. (2014). Equipping schools to fight poverty: A community hub approach. *Educational Philosophy and Theory*, 46(9), 1018–1035. https://doi.org/10.1080/00131857.2014.931006
- Hayes, P. A., & Omodei, M. M. (2011). Managing emergencies: Key competencies for incident management teams. *The Australian and New Zealand Journal of Organisational Psychology*, 4, 1–10. https://doi.org/10.1375/ajop.4.1.1
- Henstra, D. (2010). Local government emergency management programs: What frameworks should public managers adopt? *Public Administration Review*, 70(2), 236–246. https://www.jstor.org/stable/40606375

- Horton, D., Spigelmyer, P., Zoucha, R., & Rebmann, T. (2023). Disaster preparedness in K–12 schools: An integrative review. Journal of School Health, 93(8), 726–732. https://doi.org/10.1111/josh.13319
- Hosseini, S., Barker, K., & Ramirez-Marquez, J. E. (2016). A review of definitions and measures of system resilience. *Reliability Engineering & System Safety*, 145, 47–61. https://doi.org/10.1016/j.ress.2015.08.006
- Hull, R. (2012). Recovery and resiliency after a disaster in educational settings. *NASN School Nurse*, 27(3), 144–149. https://doi.org/10.1177/1942602x12442390
- Ingaramo, R., & Pascale, L. (2020). An interpretative matrix for an adaptive design approach. italian school infrastructure: Safety and social restoration. *Sustainability*, *12*(20), 8354. https://doi.org/10.3390/su12208354
- Irwin, V., Wang, K., Cui, J., & Thompson, A. (2023). *Report on indicators of school crime and safety: 2022* (NCES 2023-092/NCJ 307328) [Report]. National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC. https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2023092.
- Jensen, J., & Kirkpatrick, S. (2022). Local emergency management and comprehensive emergency management (cem): A discussion prompted by interviews with chief resilience officers.

 International Journal of Disaster Risk Reduction, 79, 103136.

 https://doi.org/10.1016/j.ijdrr.2022.103136
- Kano, M., & Bourque, L. B. (2008). Correlates of school disaster preparedness: Main effects of funding and coordinator role. *Natural Hazards Review*, 9(1), 49–59. https://doi.org/10.1061/(asce)1527-6988(2008)9:1(49)
- Kano, M., Ramirez, M., Ybarra, W. J., Frias, G., & Bourque, L. B. (2007). Are schools prepared for emergencies? A baseline assessment of emergency preparedness at school sites in three Los Angeles County school districts. *Education and Urban Society*, 39(3), 399–422. https://doi.org/10.1177/0013124506298130

- Kearns, N. E. (2021). How small policy changes can transform the implementation of physical activity minutes in Kentucky public schools: A white paper. *Journal of School Health*, 92(2), 205–208. https://doi.org/10.1111/josh.13122
- Khan, M. (2023). Sports disaster preparedness. Transfusion, 63(S3). https://doi.org/10.1111/trf.17323
- Klein, E., & Schwanenberg, J. (2020). Ready to lead school improvement? Perceived professional development needs of principals in Germany. *Educational Management Administration & Leadership*, 50(3), 371–391. https://doi.org/10.1177/1741143220933901
- Knebel, A. R., Toomey, L., & Libby, M. (2012). Nursing leadership in disaster preparedness and response. *Annual Review of Nursing Research*, 30(1), 21–45. https://doi.org/10.1891/0739-6686.30.21
- Lai, B. S., Esnard, A.-M., Lowe, S. R., & Peek, L. (2016). Schools and disasters: Safety and mental health assessment and interventions for children. *Current Psychiatry Reports*, 18(12). https://doi.org/10.1007/s11920-016-0743-9
- Lopez, R., Swezey, J. A., & Claxton, R. (2019). A multiple case study of the interagency relationship between school administrators and law enforcement personnel in the creation, implementation, and sustaining of school emergency management plans. *Journal of School Leadership*, 30(5), 465–488. https://doi.org/10.1177/1052684619896536
- Lurie, N., Manolio, T., Patterson, A. P., Collins, F., & Frieden, T. (2013). Research as a part of public health emergency response. *New England Journal of Medicine*, *368*(13), 1251–1255. https://doi.org/10.1056/nejmsb1209510
- Masten, A. S., Herbers, J. E., Cutuli, J., & Lafavor, T. L. (2008). Promoting competence and resilience in the school context. *Professional School Counseling*, *12*(2), 2156759X0801200. https://doi.org/10.1177/2156759x0801200213
- Mirzaei, S., Mohammadinia, L., Nasiriani, K., Ali Dehghani Tafti, A., Rahaei, Z., Falahzade, H., & Amiri, H. R. (2019). School resilience components in disasters and emergencies: A systematic review. *Trauma Monthly*, 24(5), 1–3. 10.5812/traumamon.89481

- Mirzaei, S., Mohammadinia, L., Nasiriani, K., Dehghani Tafti, A., Rahaei, Z., Falahzade, H., Amiri, H., Sharif Nia, H., & Dehghani, M. (2021). Design and psychometric evaluation of schools' resilience tool in emergencies and disasters: A mixed-method. *PLOS ONE*, 16(7), e0253906. https://doi.org/10.1371/journal.pone.0253906
- Mirzaei, S., Mohammadinia, L., Falahzade, H., Nasiriani, K., Dehghani Tafti, A., Rahaei, Z., & Amiri, H. (2020). Assessment of school resilience in disasters: A cross-sectional study. *Journal of Education and Health Promotion*, 9(1), 15. https://doi.org/10.4103/jehp.jehp_389_19
- Mutch, C. (2014). The role of schools in disaster preparedness, response and recovery: What can we learn from the literature? *Pastoral Care in Education*, 32(1), 5–22. https://doi.org/10.1080/02643944.2014.880123
- Mutch, C. (2016). Schools as communities and for communities: Learning from the 2010-2011 New Zealand earthquakes. *School Community Journal*, *26*(1), 115–138.
- Naseri, M., & Kang, D. (2017). A primary assessment of society-based earthquake disaster mitigation in Kabul city, Afghanistan. *Journal of Disaster Research*, *12*(1), 158–162. https://doi.org/10.20965/jdr.2017.p0158
- National Governors' Association, Center for Policy Research. (1979). Comprehensive emergency management: A Governor's guide.
- Nganji, J. T. (2018). Supporting the information journey of students with disabilities through accessible learning materials. *Information and Learning Science*, 119(12), 721–732. https://doi.org/10.1108/ils-07-2018-0062
- Nickerson, A. B., Brock, S. E., & Reeves, M. A. (2006). School crisis teams within an incident command system. *The California School Psychologist*, *11*, 63–72.
- Nicogossian, A., Zimmerman, T., Addo-Ayensu, G., Thomas, K., Kreps, G. L., Ebadirad, N., & Gautam, S. (2011). The use of U.S. academic institutions in community medical disaster recovery. *World Medical & Health Policy*, *3*(1), 1–12. https://doi.org/10.2202/1948-4682.1149

- Oktari, R., Shiwaku, K., Munadi, K., Syamsidik, & Shaw, R. (2018). Enhancing community resilience towards disaster: The contributing factors of school-community collaborative network in the tsunami affected area in Aceh. *International Journal of Disaster Risk Reduction*, 29, 3–12. https://doi.org/10.1016/j.ijdrr.2017.07.009
- Rebmann, T., Elliott, M. B., Reddick, D., & D. Swick, Z. (2012). US school/academic institution disaster and pandemic preparedness and seasonal influenza vaccination among school nurses.

 American Journal of Infection Control, 40(7), 584–589.

 https://doi.org/10.1016/j.ajic.2012.02.027
- Rebmann, T., Elliott, M. B., Artman, D., VanNatta, M., & Wakefield, M. (2016). Impact of an education intervention on Missouri k-12 school disaster and biological event preparedness. *Journal of School Health*, 86(11), 794–802. https://doi.org/10.1111/josh.12435
- Reid, D. B. (2020). US principals' sensemaking of the future roles and responsibilities of school principals. *Educational Management Administration & Leadership*, 49(2), 251–267. https://doi.org/10.1177/1741143219896072
- Ronoh, R. (2018). Adequacy of safety procedures and infrastructure for school safety in Kenya. International Journal of Academic Research in Progressive Education and Development, 7(3), 401–413. https://doi.org/10.6007/ijarped/v7-i3/4407
- Santa-Cruz, S., Córdova, G., Rivera-Holguin, M., Vilela, M., Arana, V., & Palomino, J. (2016). Social sustainability dimensions in the seismic risk reduction of public schools: A case study of Lima, Peru. *Sustainability: Science, Practice and Policy*, *12*(1), 34–46. https://doi.org/10.1080/15487733.2016.11908152
- Sarwono, & Qolbi, M. (2024). Primary school infrastructure preparedness analysis regarding the hazard of Mount Merapi eruption in Selo District Boyolali Regency. *IOP Conference Series: Earth and Environmental Science*, *1314*(1), 012058.

 https://doi.org/10.1088/1755-1315/1314/1/012058
- Shah, A., Ye, J., Pan, L., Ullah, R., Shah, S., Fahad, S., & Naz, S. (2018). Schools' flood emergency preparedness in Khyber Pakhtunkhwa Province, Pakistan. *International Journal of Disaster Risk Science*, 9(2), 181–194. https://doi.org/10.1007/s13753-018-0175-8

- Smith, A. (2020). *U.S. billion-dollar weather and climate disasters, 1980 present (ncei accession 0209268)* [Data set]. NOAA National Centers for Environmental Information. https://doi.org/10.25921/stkw-7w73
- Son, C., Sasangohar, F., Neville, T., Peres, S., & Moon, J. (2020). Investigating resilience in emergency management: An integrative review of literature. *Applied Ergonomics*, 87, 103114. https://doi.org/10.1016/j.apergo.2020.103114
- Tanner, T., Surminski, S., Wilkinson, E., Reid, R., Rentschler, J., Rajput, S., & Lovell, E. (2016). The triple dividend of resiliencea new narrative for disaster risk management and development. In *Climate risk management, policy and governance* (pp. 1–29). Springer International Publishing. https://doi.org/10.1007/978-3-319-40694-7_1
- U.S. Department Of Education, U.S. Department of Justice, U.S. Department of Health and Human Services, & U.S. Department of Homeland Security. (2018). *Final report of the federal commission on school safety* [Report].
- United Nations International Strategy for Disaster Reduction. (2009). UNISDR terminology on disaster risk reduction [PDF]. https://www.unisdr.org/files/7817 UNISDRTerminologyEnglish.pdf
- Vahdat, K., & Smith, N. J. (2014). A risk-based system for managing the retrofitting of school buildings in seismic prone areas: A case study from Iran. *International Journal of Risk Assessment and Management*, 17(4), 311. https://doi.org/10.1504/ijram.2014.062786
- Yablon, Y. B., & Itzhaky, H. (2015). Living in a conflict zone: Where do students feel safe from violence. *Journal of Community Psychology*, 43(8), 1036–1043. https://doi.org/10.1002/jcop.21740
- Zhao, C., & Jowett, S. (2022). Coach leadership in a crisis context: Investigating effective coach behaviors during the covid-19 pandemic with a process view. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1061509

Zusman, E. E., & Marghella, P. D. (2013). Disaster management in the era of lean healthcare. *Neurosurgery*, 72(2), N11–N14. https://doi.org/10.1227/01.neu.0000426210.89959.f5

Frontline Perspectives: Human Resource-Driven Strategies for Teacher Recruitment and Retention in Texas

by

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Abstract

Teacher recruitment and retention remain a significant challenge, as many schools in Texas struggle to fill open positions and retain educators. This study investigates practical approaches to teacher recruitment and retention as perceived by district human resource (HR) directors. The study used a qualitative design, collecting data through in-depth interviews. The findings revealed that effective recruitment relies on residency models, Grow-Your-Own programs, university partnerships, compensation, mentorship, and data use, while retention is shaped by leadership support, career pathways, wellness initiatives, and competitive pay within a highly competitive labor market. These results highlight the importance of aligning HR practices with organizational goals and employee needs to foster a more engaged and committed workforce. Practical recommendations were provided for HR practitioners and district leaders to enhance teacher recruitment and retention strategies. Furthermore, this study contributes to understanding factors influencing teacher recruitment and retention in Texas and offers actionable insights for organizational success.

Key Words: teacher recruitment, teacher retention, human resource management, social identity theory, job embeddedness theory

Texas is experiencing a significant teacher shortage, with high attrition rates and an increasing number of uncertified teachers being hired. In 2023-2024, over a third of newly hired teachers in Texas were uncertified (Dey, 2025). This shortage is particularly acute in subject areas such as Bilingual/English as a Second Language, Career and Technical Education, and Special Education (Texas Education Agency, 2025c). The shortage of teachers is leading to larger class sizes, which affects the quality of education and individual student attention. Additionally, with fewer qualified teachers available, schools increasingly rely on substitute teachers, impacting student learning outcomes (Staake, 2025).

Human Resource (HR) departments play a pivotal role in addressing these challenges by implementing proactive strategies. This includes robust recruitment processes to identify candidates aligned with the district's mission and vision (Pelzel, 2023). The primary goal of this study is to explore strategies that help highly effective and experienced teachers stay in the profession and techniques human resource leaders can use to recruit qualified teachers. Through these insights, the researchers aim not only to contribute to the existing literature on the profession's current state but also to provide actionable data to guide human resource practitioners, district leaders, and those responsible for recruiting and retaining teachers in Texas.

Research Questions

The researchers focused on specific research questions to guide their study. These questions aimed to gather insights from HR leaders about effective hiring and retention strategies in urban, suburban, and rural school districts in Texas.

- RQ1. What teacher recruitment strategies are perceived as most effective by HR Directors in Texas?
- RQ2. What teacher retention strategies are perceived as most effective by HR Directors in Texas?
- RQ3. What challenges are perceived as most significant to teacher recruitment by district

HR leaders in Texas?

RQ4. What challenges are perceived as most significant to teacher retention by district HR leaders in Texas?

Theoretical Framework

The social identity theory (Tajfel, 1978) and the job embeddedness theory (Mitchell et al., 2001) served as the theoretical frameworks for this study. The social identity theory posits that employees derive significant portions of their identity and self-esteem from their organizational membership. When employees strongly identify with the values, goals, and culture of their organization, they feel a deep sense of belonging and attachment. This sense of belonging fosters loyalty and commitment, making them more likely to remain with the organization over the long term.

Job embeddedness refers to the extent to which an employee forms social and emotional bonds with their job, community, and organization. It posits that individuals remain in their current position when they feel connected to three components: the organization, the colleagues within it, and the community outside of it (Holtom et al, 2006). It is conceptualized in the literature as a state of "stuckness" that causes employees to want to stay in their jobs due to a combination of factors (Li et al., 2022). However, job embeddedness can also be an effective way to increase employee loyalty and enhance their sense of belonging within the organization (Mitchell et al., 2001).

Thus, by cultivating a strong school culture that aligns with employees' values and aspirations, school districts in Texas can enhance teachers' sense of identification with the school. Effective leadership and communication practices emphasizing shared goals and values can further reinforce this sense of belonging and commitment, ultimately contributing to enhanced teacher recruitment, retention, and long-term school success.

Literature Review

Texas is grappling with a critical shortage of qualified teachers, with over 42,000 uncertified educators making up approximately 12% of the workforce (Tan et al., 2025). This shortage has led to larger class sizes, an increased reliance on substitute teachers, and a decline in educational outcomes. This review of the literature examines the current teacher shortage in Texas, implications of the teacher shortage, recruitment and retention strategies, factors influencing retention, challenges in recruitment and retention, and human resource perspectives.

Teacher Shortage Trends in Texas

The teacher shortage crisis has reached critical levels in recent years, fueled by factors such as low pay, burnout, and insufficient support for educators (Ha et al., 2025; Reinke et al., 2024; Sutcher et al., 2019). Statistics reflect how Texas's teacher shortage crisis extends beyond an isolated issue into an enduring challenge. Over the past decade, Texas has struggled to retain experienced educators and has failed to produce enough new teachers to fill the widening gap, and the quality of teacher new hires available in Texas has changed with a sharp increase in uncertified teachers (Raise Your Hand Texas, 2025). Texas schools now hire more unlicensed new teachers than licensed ones (Texas Education Agency, 2025a). In 2023-2024, more than half of teachers in Texas were uncertified, with the supply problem especially acute in rural and small-town schools (Texas Education Agency, 2025b). According to the Charles Butt Foundation (2024), 78% of public-school teachers in Texas seriously considered leaving their jobs in 2024. That same year, the attrition rate for teachers in Texas reached a historic high of 13.4%. These alarming trends underscore a systemic crisis in Texas' education workforce, one whose far-reaching implications now threaten the quality, equity, and stability of public education across the state. However, recent legislation in the state is focused on increasing teacher pay and improving conditions for support staff (H.B.2, 2025).

Implications of the Teacher Shortage

The escalating teacher shortage in Texas is not merely a staffing issue but a profound disruption to the educational ecosystem with wide-ranging consequences. As schools increasingly

rely on uncertified and underprepared educators, the quality of instruction suffers. Teachers have the most significant impact on student achievement (McKinley, 2023; Prananto et al., 2025; Raise Your Hand Texas, 2025; Sorensen & Ladd, 2020; Tao et al., 2022), and students' relationships with teachers are fundamental to their success in school. Also, teacher quality has a greater effect on student outcomes than any other factor, including race, socioeconomic status, and prior academic record (Darling-Hammond & Podolsky, 2019). According to Hanushek and Rivken (2012), having three years of good teachers would overcome the average achievement deficit between low-income students on free or reduced-price lunch and others. Moreover, students with new uncertified teachers lose approximately four months of learning in reading and three months in math, unless the teacher has prior experience in public schools, a concerning reality given that 72% of new uncertified teachers in Texas lack such experience (Kirksey, 2024). Additionally, teachers are strongly linked to increased graduation rates, college completion, and salary earnings of students (Prananto et al., 2025; Raise Your Hand Texas, 2025; Tao et al., 2022), as well as their physical, social, and emotional health (Raise Your Hand Texas, 2025). Given the critical role teachers play in shaping student outcomes and the alarming consequences of relying on underqualified educators, it is imperative to explore targeted recruitment and retention strategies that can stabilize and strengthen the teaching workforce in Texas.

Recruitment and Retention Strategies

Addressing the teacher shortage in Texas requires a multifaceted approach centered on both attracting new educators and retaining experienced ones. Recruitment efforts must go beyond filling vacancies; they must focus on drawing high-quality candidates into the profession through competitive compensation, streamlined certification pathways, and targeted outreach to target communities (Shaoan et al., 2025). Researchers found that individuals are more likely to choose a teaching career when teachers' starting income is comparatively high compared to other occupations (Han et al., 2018; Sutcher et al., 2019).

Thompson-Lee et al. (2025) found that while financial incentives like scholarships and bursaries are widely used to recruit STEM teachers, their effectiveness is limited. The review of 25 empirical studies revealed that these incentives often fail to significantly increase applications to teacher training programs. Instead, the authors advocate for more innovative and holistic recruitment strategies, such as alternative certification pathways, targeted outreach to underrepresented groups, and recruitment campaigns that emphasize the societal value and intellectual challenge of teaching. The study also calls for more rigorous evaluation of recruitment interventions, suggesting future efforts should be grounded in evidence-based practices and tailored to the specific needs of subject areas and local contexts. Shaoan et al. (2025) also emphasized the importance of non-monetary factors in teacher recruitment, including emotional satisfaction, school location, and accessibility to the profession.

At the same time, retention strategies must prioritize improving working conditions, providing robust professional development, and fostering supportive school cultures that value teacher voice and leadership (See et. al., 2020a). Recent literature underscores the critical role of working conditions in teacher retention, particularly in challenging school environments. See et al. (2020b) conducted a systematic review of international studies and found that while financial incentives may attract teachers to hard-to-staff schools, they are insufficient for long-term retention. Instead, supportive and conducive working environments characterized by strong leadership, adequate resources, and collaborative cultures are essential for sustaining teacher commitment. Similarly, Williams et al. (2022) emphasized the importance of modernizing professional incentives and creating meaningful opportunities for teacher growth and autonomy. Their study highlighted the effectiveness of online professional development (PD) platforms that offer personalized, on-demand learning, which not only supports teacher efficacy but also enhances retention by addressing the diverse needs of educators across career stages.

In addition to improving working conditions, fostering supportive school cultures and prioritizing teacher well-being are vital retention strategies. Avola et al. (2025) presented a comprehensive scoping review of interventions to reduce teacher burnout and enhance well-being, revealing strategies grounded in the PERMA-H model of positive psychology, such as mindfulness, gratitude practices, and communal activities, significantly contribute to teacher satisfaction and resilience. Moreover, Morris et al. (2020) demonstrated that leadership practices focused on participative decision-making, recognition, and professional growth can transform school culture and improve staff morale. These findings align with See et al. (2020a), who advocate for retention strategies that elevate teacher voice and leadership, suggesting that empowering educators within supportive environments is key to sustaining a stable and motivated workforce.

Factors and Challenges Influencing Recruitment and Retention

Retention is affected by a complex interaction of personal, professional, and systemic factors and challenges. Supportive leadership, a collaborative environment, and meaningful professional development are essential (Nguyen et al., 2024). Excessive administrative tasks, large class sizes, and a lack of planning time can lead to burnout (Sutcher et al., 2019; Tan et al., 2025). Competitive salaries and transparent advancement opportunities are also vital for retaining talent (Shaoan et al., 2025). Garcia and Weiss (2019) noted that highly trained teachers were especially vulnerable to shifts in comparable pay.

Recruitment challenges include negative public perceptions of the teaching profession, certification requirements, and geographic disparities. Societal views, such as undervaluation of teachers, a lack of recognition, public scrutiny, and perceptions of high stress and burnout, deter potential candidates from entering the field (Harwin, 2024; McKinley, 2023). Also, low starting salaries compared to other professions requiring similar education levels discourage potential candidates from pursuing teaching careers (Sutcher et al., 2019).

Human Resource Perceptions

HR leaders emphasize the importance of building a positive school culture, streamlining hiring processes, and investing in teacher wellness. Retention improves when teachers feel valued and supported (Wilson-Heenan et al., 2023). Mental health support, flexible scheduling, and recognition programs contribute to long-term retention. Van Beurden et al. (2021) found that teachers' perceptions of HR practices, particularly their effectiveness, influence work engagement and job performance. When HR practices such as coaching, career development, and performance management are perceived as effective, they foster higher engagement and retention. Conversely, ineffective or poorly implemented HR strategies can diminish morale and performance. Similarly, onboarding processes are pivotal. Mecham et al. (2023) highlighted that comprehensive onboarding reduces anxiety, accelerates integration, and strengthens professional relationships, all of which contribute to retention. However, delays in onboarding and certification verification can lead to missed hiring opportunities and increased turnover, particularly in high-demand areas such as STEM.

Mental health support is another vital HR consideration. Stark and Daulat (2025) demonstrated that teacher well-being, measured through autonomy, purpose, and positive relationships, positively correlates with retention. Ferguson et al. (2022) further emphasized that burnout and stress are prevalent among educators, often leading to leaves of absence and attrition. HR interventions such as flexible scheduling, wellness programs, and recognition initiatives can mitigate these challenges and promote a sustainable teaching workforce. Collectively, these findings affirm that strategic HR practices not only enhance teacher performance but also serve as essential levers for long-term retention.

Methodology

This study investigates effective approaches to teacher recruitment and retention as perceived by district human resource (HR) directors. Guided by four primary research questions, the study examines the practices that shape recruitment and retention while also identifying research-informed

strategies that can assist HR professionals and educational leaders in addressing the needs of this essential segment of the workforce.

Participants

The participants in this study were Human Resources (HR) Directors with direct experience and responsibility in the recruitment and retention of teachers in Texas school districts. A snowball sampling approach was used, whereby the first participant interviewed referred the researcher to additional participants. All referrals were carefully vetted to ensure they met the established criteria for participation, which required a minimum of five years of experience in their role. In total, 11 HR directors participated, with years of experience ranging from 12 to 28. The group included six directors from urban districts, three from suburban districts, and two from rural districts: eight represented large districts and three represented small districts. This distribution provided an array of perspectives.

Data Collection and Analysis

Qualitative data was collected through interviews, which provided participants (n=11) with the opportunity to freely share their perspectives and experiences in their own words. These responses were reviewed and analyzed, with close attention given to identifying patterns, similarities, and differences across submissions. Through this process, distinct themes emerged that captured participants' viewpoints. Specifically, the analysis yielded six themes related to Research Question 1, four themes for Research Question 2, two themes for Research Question 3, and three themes for Research Question 4. Identifying these themes offers a structured framework for organizing participant feedback and underscores the key areas of importance that consistently surface across the dataset.

Research Questions

The following questions guided this research:

1. What teacher recruitment strategies are perceived as most effective by HR Directors

in Texas?

- 2. What teacher retention strategies are perceived as most effective by HR Directors in Texas?
- 3. What challenges are perceived as most significant to teacher recruitment by district HR leaders in Texas?
- 4. What challenges are perceived as most significant to teacher retention by district HR leaders in Texas?

Findings and Emergent Themes

An analysis of participant responses revealed several themes that directly informed the research questions of this study. The data identified several patterns that shed light on how district HR leaders in Texas navigate the challenges of teacher recruitment and retention. These themes highlight both the strategies perceived as most effective and the barriers that continue to limit districts' ability to build and sustain a strong teaching workforce. The research questions and their corresponding themes are presented in the following sections.

Emergent Themes Related to Research Question 1 (Recruitment Strategies)

Analysis of responses to this question revealed several key themes. These themes highlight the common experiences of each participant. Collectively, they demonstrate how district HR leaders in Texas perceive and interpret teacher recruitment strategies, providing meaningful context for understanding the approaches viewed as most effective

Teacher Residency Models

Eight of the eleven participants recognized teacher residency models as highly effective recruitment strategies. Unlike traditional one-semester clinical teaching placements, residencies allow candidates to spend an entire academic year under the mentorship of a teacher of record. Many districts that provide stipends or pay for these roles reported that this financial incentive strengthens the appeal of candidates.

Participant 1 emphasized the benefit of previewing the district culture:

"I can say that the residency offers students a way to see us before they work for us. If we make a good impression, they usually stay for several years. So far, we have had a good retention rate...I think this is the future."

Participant 5 added:

"The residency model gives our district the most committed students. Those who complete it typically stay here."

Participant 8 spoke to the embedded mentorship component, noting that new teachers feel more secure when supported:

"At the beginning, they can feel overwhelmed. The residency has a built-in mentorship program. At least that's how I see it. Students love this and feel more comfortable, which makes them want to stay."

Participant 11cited that all districts should consider paid residencies:

"Residency is the way to go! The best recruitment tool in my opinion...Our residents have a built-in incentive in that we pay. Everyone should pay residents. For students who must work and go to school, it's a win-win. Those who choose this option are top performers. We also find they are more loyal to us."

These insights highlight that teacher residency models are powerful recruitment strategies by integrating mentorship, financial support, and early immersion in district culture. These elements may significantly influence candidates' decisions to enter and remain in the profession.

University Partnerships

Nine of the eleven participants recognized university partnerships as a highly effective recruitment strategy. HR leaders consistently pointed to partnerships with universities as a key recruitment strategy. Such relationships give districts early access to teacher candidates before graduation and help strengthen the overall pipeline of new hires.

Participant 4 emphasized the importance of these connections:

"It's good to have relationships with multiple universities. That's where the new teachers are made.

Only makes sense to have a relationship with these universities."

Similarly, Participant 3 noted that career fairs and early outreach to soon-to-be graduates provide districts with a competitive edge:

"I try to stay in touch with the area colleges. Sometimes, there are national opportunities. If you go too far it's not good and they won't stay."

Participant 5 highlighted additional benefits that come from these partnerships:

"Our district looks for partnerships with universities that have a few options for educator preparation. For example, such as programs that allow paraprofessionals to get certified, and those programs that have ACP programs that can help graduates that are seeking certification after they have already graduated."

Similar to this, Participant 11 mentioned the use of video platforms to develop university partnerships:

"Having a good relationship with your area colleges is key. We use online platforms to our advantage. Instead of always emailing, we sometimes will ask to jump on a video call to check in. If we are lucky, they let us visit some of the senior level classes both in person and online. Some places are more rigid than others."

Collectively, these perspectives reveal that university partnerships function as highly effective recruitment strategies. They not only create a steady pipeline of teacher candidates but also expand opportunities to engage prospective hires early and provide a variety of certification pathways for paraprofessionals and staff.

Compensation

All participants identified compensation as a highly effective recruitment strategy. HR leaders emphasized that salary and benefits strongly influence teachers' decision to join a district.

Participant 7 explained:

"The amount of salary seems to be the first influence for most candidates. Other districts promote the big number, and we are forced to compete. But the real value should consider everything like benefits, too. I've seen someone take a higher offer further away, then pay more in benefits that reduced their pay."

Participant 8 added that incentives often tip the scale:

"Bonuses and additional benefits can make a difference, but communication of this is key to ensuring candidates understand the total value."

Participant 4 agreed, noting the positive impact on new graduates:

Employees love pay incentives. It does not always work, but it helps, especially with newer graduates."

Compensation packages that include specialized stipends were identified as influential recruitment tools. This was echoed by Participant 10:

"Depending on the subject area our district has recruitment and retention stipends. These are a part of the bigger compensation package and are in addition to base pay. They are good for recruiting hard to staff areas."

Jointly, these perspectives highlight that competitive compensation packages remain among the most effective recruitment strategies. Beyond base salary, districts that clearly communicate the total value of their benefits and incentives are more likely to attract and secure teaching candidates in Texas.

Grow-Your-Own Programs

Seven of the eleven participants observed Grow-Your-Own (GYO) programs as a sustainable and strategic recruitment model. These initiatives identify and support paraprofessionals, staff, or even community members in transitioning into certified teaching roles, often through partnerships with universities.

Participant 6 highlighted accessibility:

"Everyone should try a grow-your-own model first. That's where universities are important. The online programs are valuable because they offer more flexibility. This gives paras and staff the chance to go to school without having to quit their job."

Similar to participant 6, Participant 4 echoed sentiments regarding growing your own:

"We find that if we can get someone in the district on board, it is a better hire. We like to build our own if possible since we are not in a very competitive area."

Participant 7 described how rural districts extend the model beyond internal staff:

"We try to involve the community in this, encouraging them to come into the teaching profession.

When possible, we offer incentives to help them become teachers."

Collectively, these comments suggest that Grow-Your-Own (GYO) programs function as effective recruitment strategies by cultivating internal pipelines, broadening access to the profession, and strengthening community investment in local schools.

Mentoring/Support

Participants consistently identified mentoring and support as a critical recruitment strategy. Establishing a supportive and welcoming environment was essential for easing candidates' fears and reinforcing their decisions to enter the teaching profession.

Participant 5 explained the role of early mentorship in sealing hiring decisions:

"Some of our prospective teacher hires specifically ask about mentoring and support. Sometimes that seals the deal."

Participant 8 echoed the importance of reassurance:

"They hear these horror stories and are concerned about losing their jobs. Making a new teacher feel supported before they make a decision is critical. Support is key during and after we onboard."

Participant 3 emphasized the influence of early experiences:

"The experience prior to hiring makes a difference. There are so many options out there with different bells and whistles, but support is what really matters.

Together, these perspectives demonstrate that personalized onboarding and mentorship operate as powerful recruitment strategies by assuring candidates that they will be valued, supported, and set up for success.

Data-Driven HR Practices

Finally, participants stressed the growing importance of data in shaping recruitment strategies.

HR leaders described how data use has evolved to drive competitive positioning, inform marketing, and guide decisions with limited resources.

Participant 1 noted the shift in expectations:

"We are in an environment that forces us to do more with data. The HR role has changed. Gone are the days of just saying we are in a growing community."

Participant 9 underscored the efficiency of this approach:

"With limited budgets, we have to use data to help us recruit. This saves us money. Everyone wants a competitive edge, and we really have to know the market."

In sync with this thought, Participant 4 highlighted:

"Data is very useful in recruitment. It helps us identify our target employees. This reflects a shift from traditional recruitment toward more systematic approaches where districts use data to monitor the effectiveness of recruitment and allocate limited resources more strategically."

These insights reveal that data-driven HR practices are effective recruitment strategies because they allow districts to be intentional, competitive, and strategic in attracting candidates within a highly contested labor market.

Emergent Themes Related to Research Question 2 (Retention Strategies)

When looking at the responses to this question, four main themes stood out. Participants shared common perspectives on what drives teachers to stay, pointing to a mix of organizational and individual factors influencing those decisions. Together, their insights show how leadership, opportunities for growth, teacher well-being, and fair compensation all come together to shape long-term workforce stability.

Supportive Leadership Practices

Participants offered interesting perspectives into the role of school and district leadership in retaining teachers. Supportive leadership, particularly from principals, was viewed as essential to creating environments where teachers feel valued and understood.

Participant 1 explained the need for sensitivity:

"Leadership support is important for teacher retention, especially for younger teachers. They are more emotional; I mean, sensitive to failure, and require a lot of support from the leadership team. Sometimes, a simple good job! Is enough"

Participant 2 added that leadership sets the tone for the school climate:

"Leadership that encourages a positive work environment helps with retaining teachers. If they don't feel supported or as if the school leader listens, it could be bad. These teachers have options."

Participant 9 highlighted flexibility as another form of leadership support:

"We are beginning to get more and more questions about flexible schedules. This is important to some families that seem to value their time with younger children or want flexibility in retirement. We tried it, and it seems those teachers are staying around."

These perspectives suggest that retention is not only about policy but also about relationships, with leadership practices that demonstrate empathy, flexibility, and responsiveness directly linked to teachers' decisions to stay.

Career Pathways and Professional Growth

Another factor influencing retention was the opportunity for career advancement and ongoing professional learning. Participants described how structured pathways for growth, such as leadership programs, keep teachers motivated and committed.

Participant 1 emphasized advancement as a retention tool:

"Career advancement and professional growth are things that help our retention. My district offers loads of professional development to help teachers move along in their careers. They want to know there is something to look forward to in the district."

Participant 4 shared her district's approach:

"Many teachers want to advance and look to their district for this. We have found that leadership programs that identify high-performing teachers for advancement and growth can help retention of some."

Although such programs may not serve all teachers, these responses indicate that providing avenues for professional growth is a powerful way to retain those who aspire to leadership or specialized roles.

Wellness and Mental Health Support

Participants also highlighted wellness and mental health as central to teacher retention. Stress, burnout, and lack of adequate support were cited as persistent barriers often leading teachers to exit the profession.

Participant 4 noted:

"Stress and mental health definitely play a role in retention. We have support programs that offer ways to decompress or discounts to spas, gyms, etc., all in the goal of mental health or work-life balance."

Participant 7 confirmed this trend, pointing to more teachers raising concerns during re-employment discussions:

"More and more, we are hearing from teachers with mental health concerns when considering

returning. This made our district take a look at what we could do to support them. We have several options in place, along with employee services that provide access to mental health services. We also encourage campus and administration team building"

Another participant recalled exit interviews that reinforced the same issue:

"People have mentioned mental health and lack of support as a concern in retention. My district offers mental health days. I've had teachers tell me that they appreciate this, and it played a role in them staying. They also asked could there be a few more."

Collectively, these insights underscore that mental health supports are increasingly critical in retaining teachers.

Competitive Compensation and Benefits

As with recruitment, participants agreed that compensation and benefits remain central to retention. HR leaders emphasized that retaining teachers requires competitive pay packages that account not only for salary but also for the value of benefits and incentives.

One participant explained:

"Compensation and benefits help our retention. Our data has shown this. Compared to a two year period were able to retain 10 percent more of our teachers. This was a good year."

Participant 5 stated that money always motivates most teachers to stay. Especially in the competitive environment we are in. We have to become more aggressive and creative with our packages.

Participation 8 noted that compensation must be viewed as more than just money. This has made our negotiation for benefits contracts even more important. Any savings we can get will be passed on to our employees and help. Our superintendent has been good with this. He gets it.

Districts that fail to offer competitive packages risk losing teachers to surrounding districts or other professions altogether. These comments highlight the importance of framing compensation holistically, making transparent the full value of salary, bonuses, insurance, retirement, and other incentives.

Emergent Themes Related to Research Question 3 (Challenges to Recruitment)

Analysis of responses to this question revealed two primary themes. Together, they highlight the dual pressures districts face: navigating an increasingly competitive hiring environment while simultaneously working to market teaching as an attractive career option.

Competitive Hiring Landscape

Participants consistently described competition with neighboring districts and even other industries as the most pressing challenge to teacher recruitment. With multiple organizations drawing from the same limited pool of qualified candidates, attracting and securing talent is increasingly difficult.

Participant 1 explained:

"Competition with other districts is the biggest challenge. Everyone is going after the same people."

Participant 2 affirmed this concern, stressing how quickly districts must move to avoid losing

candidates:

"We lose strong applicants to districts that can offer higher salaries or other incentives. You have to act fast or someone else will hire them."

Similarly, Participant 5 described the challenge of too many competing options:

"It is getting harder and harder to recruit because there are so many options for candidates to choose from. We try to get their contracts out early, so they know"

Participant 8 said, "The market is much more competitive than it used to be. Not enough teachers to go around. They all have options even the bad teachers have options. Once you let them leave you might not see them again.

These perspectives reveal that the competitive landscape forces districts to be both strategic and proactive, with speed and financial incentives often determining recruitment success.

Effective Marketing Strategies

Alongside competition, participants identified marketing as another recruitment challenge.

HR leaders stated that, unlike corporate employers with large advertising budgets, districts often lack the resources or expertise to effectively promote teaching careers.

Participant 3 pointed out that:

"Corporations have big budgets, but many districts, especially smaller ones like ours, do not have the ability to showcase what we offer. We must get creative with how we promote opportunities. Social media works well. But this is only one part."

Participant 11 stressed the consequences of unclear messaging and highlighted the value of university outreach:

"Without clear and fancy messaging, potential teacher candidates overlook us or get pulled in by other offers. We found that visiting universities to identify new graduates is very effective. Getting to know some of the professors can be great, too. If this is allowed"

Participant 5 stressed the importance of tailoring recruitment to younger candidates:

"Marketing is key when it comes to teacher recruitment. With younger teachers, you only have a quick moment to capture their attention, especially on social media."

Several participants also pointed to innovative approaches that highlight district support systems and community incentives, stating:

"Promoting how you support teachers is important. In addition to our financial commitments, we promote new teacher support."

"We have even involved realtors in our marketing. Anything to be innovative. Sometimes discounts on homes or other incentives work, stated Participant 7."

Participant 4 added that effective marketing should emphasize both financial and cultural aspects:

"Marketing that highlights the total financial package works. Also, short videos showing how fun the district is also work."

Collectively, these responses highlight that even when districts offer competitive opportunities, weak marketing and limited visibility can undermine recruitment efforts. Effective, targeted messaging, especially through social media, university partnerships, and innovative incentives, was seen as essential for capturing candidates' attention and sustaining interest.

Emergent Themes Related to Research Question 4 (Challenges to Retention)

Competitive Hiring Landscape

Participants consistently emphasized that competition among school districts is one of the greatest challenges to retaining teachers. They explained that when teachers hear about better pay, more flexible schedules, or additional perks in nearby districts, they often choose to leave. This constant movement undermines stability and continuity within schools.

Participant 8 explained:

"In Texas, there are so many school districts located close together. Many of them can afford to pay top salaries or offer attractive perks. This makes it difficult to keep teachers because they are constantly hearing about better opportunities elsewhere."

Participant 7 remarked:

"To remain competitive, our district will need increased funding. It is hard to compete with suburban districts or those near large cities, where salaries are higher and amenities are more available. Also, flexible scheduling is also emerging as something to consider."

Participants 1 and 4 agreed that retention has become more difficult as competition increases.

Participant 1 reflected:

"At first, you could just recruit a teacher and let the campus and district culture take care of retention. Now, it is an ongoing process. In HR, recruitment and retention are year-round, no longer seasonal."

Understanding Reasons for Turnover

Another major theme was the importance of systematically understanding why teachers leave. Participants stressed that exit interviews, survey data, and informal conversations often reveal key factors such as workload, stress, and limited opportunities for growth. Without analyzing these drivers, districts cannot design strategies that effectively address teacher turnover.

Participant 7 highlighted the need for better data:

"You must be data-driven. We have a dashboard that helps us look at retention data, but it's lagging. We need something more real-time. Honestly, I never thought retention would become such a concern."

Participant 3 expanded on workload and advancement:

"We collect a lot of data from exit interview and surveys. Many teachers talk about workload and the lack of opportunities for growth. That's difficult because districts only have so many promotional paths. We have to be creative in providing opportunities. Another concern is workload. As a former principal, I don't think the workload has increased, but if teachers see it that way, we must take it seriously."

Participant 10 stated:

"As HR professionals, we have to commit to understanding not only recruitment but also why teachers leave. Without that knowledge, retention will continue to be a challenge. At one conference I attended, the speaker spoke about the importance of data in both recruitment and retention. Honestly, we are struggling to keep teachers."

Teacher Well-Being and Stressors

Participants also raised concerns about teacher well-being as a growing factor in retention. Stress caused by workload, student behavior, and a lack of support was cited as a common reason teachers consider leaving. Several explained that when teachers feel unsupported in managing stress, they are more likely to exit the profession.

Participant 3 observed:

"Many teachers mention stress when they think about leaving. If they believe the job is too stressful, it feels like there's nothing you can do to stop them. We try wellness programs, but when teachers are overwhelmed, it doesn't always help. Some leave and come back later, realizing it wasn't any better in another district."

Participant 5 emphasized student behavior as a stressor:

"We hear from many teachers that student behavior is a serious issue at some schools. This contributes to their decision to leave. We provide support and advocate for them, but sometimes it isn't enough. We've definitely seen an increase in negative student behavior. Never thought I would say that campus behavior management could impact retention."

Participant 1 added:

"We hear many teachers say they feel unsupported and overwhelmed with teaching responsibilities.

When that happens, many of them want to leave the profession if they can."

Together, these findings show that the biggest challenges to teacher retention are both external and internal. Externally, teachers are drawn away by the competitive hiring landscape. Internally, stress, student behavior, and limited support structures impact retention. Districts that address only one of these areas struggle to retain teachers; meaningful progress requires strategies that respond wholistically.

Discussion

This study highlights the multifaceted nature of teacher recruitment and retention in Texas. The findings confirm that competitive compensation is necessary but not the sole factor responsible for advancing the teaching workforce (See et al., 2020b). In addition, district HR leaders suggested that residency models and university partnerships were especially valuable because they allow candidates to connect with districts early and gain a sense of connectedness before committing. These

pipelines often seemed to play a dual role as they opened the door for recruitment while also supporting retention.

Beyond these strategies, the findings suggest that recruitment and retention are not stand-alone processes but interdependent functions that must be managed together. Residencies and GYO programs not only expand the pool of teacher candidates but also provide early exposure to district culture, reducing attrition risks during the early years of teaching. Similarly, mentorship was described as essential not just for recruiting strong candidates but also for helping new teachers navigate the challenges of the profession. These findings underscore that recruitment and retention strategies often work in tandem.

The role of leadership is also important. Participants repeatedly noted that principals and district leaders set the tone for whether teachers feel valued. Simple recognition, opportunities to collaborate, and pathways for growth were cited as practices that encourage teachers to stay. This aligns with research showing that retention depends not only on pay but also on culture and relationships (See et al., 2020a; Ha et al., 2025; Reinke et al., 2024; Sutcher et al., 2019). Teachers who perceive their principals as responsive and supportive are more likely to remain, while those who feel isolated or disregarded are more likely to seek opportunities elsewhere, even when compensation is competitive. HR leaders stressed the value of strengthening school culture, simplifying hiring, and prioritizing wellness efforts, arguing that such support contributes to improved retention outcomes, a finding consistent with recent scholarship (Wilson-Heenan et al., 2023). In this sense, leadership practices may function as a distinguishing factor that can amplify or undermine other retention strategies.

Another common theme was the challenge of navigating a competitive hiring landscape. Districts compete not only with one another but also with other industries for talent. This reality states the importance of effective marketing strategies and differentiated value propositions, highlighting supportive environments, wellness support, and professional growth opportunities

(Williams et al., 2022). Several HR leaders emphasized that even when districts offered competitive pay, they struggled to effectively communicate their overall package of benefits and support systems in ways that could compete with other districts or sectors. This highlights the need for districts to become more intentional and creative in presenting themselves to potential candidates.

Data-driven HR practices further enhance district capacity to refine recruitment and retention strategies, signaling the need for systemic adoption of data use in HR recruitment and retention. Participants noted that data use has grown significantly in recruitment, helping districts better target candidates and allocate resources effectively. However, the use of real-time data for retention lags, with most districts relying on lagging indicators such as exit interviews or delayed survey results. The findings suggest that a stronger, continuous system for monitoring teacher experiences, workload perceptions, and early warning signs of dissatisfaction could allow for more proactive interventions.

Conclusion

Addressing teacher shortages in Texas requires an integrated approach that connects recruitment and retention. As it relates to recruitment, districts are likely to benefit from strategic investments in teacher residency models, strong university partnerships, and Grow-Your-Own initiatives, along with data-informed human resource practices. On the retention side, sustaining the teaching workforce requires deliberate attention to supportive school and district leadership, comprehensive wellness initiatives, and clearly articulated pathways for professional growth and advancement. While competitive pay remains important, culture and support systems seem to have a similar impact on whether teachers stay in the profession. In fact, Shaoan et al. (2025) noted the importance of non-monetary factors in teacher recruitment, including emotional satisfaction, school location, and accessibility to the profession. Districts that create environments where both professional and personal needs are addressed are likely to be more successful in stabilizing their teacher workforce. This helps districts attract new teachers and create the conditions necessary to retain them over time. By treating recruitment and retention as continuous, interdependent processes,

districts can move beyond short-term fixes and begin to stabilize their teaching workforce in meaningful, lasting ways. Nonetheless, districts will need to be intentional and fully invested in their efforts.

Practical Recommendations for HR and District Leaders

The themes identified in this study suggest several practical steps that HR and district leaders might take to strengthen teacher recruitment and retention. Although no single approach is likely to resolve the challenges entirely, the findings indicate that meaningful progress depends on a combination of robust pipeline development, supportive organizational structures, and consistent monitoring of teacher experiences.

Teacher Residency Models. Districts could expand residency opportunities by offering stipends or partial salary support, which several participants described as making the role more attractive. Because residencies also provide year-long mentoring, they may serve the dual function of recruitment and early retention. Leaders should therefore think of residencies not only as an entry point but also as a tool for teacher persistence.

University Partnerships. Building strong connections with universities remains an important strategy. Several participants emphasized that career fairs and early outreach give districts a competitive advantage. In practical terms, this may mean investing more deliberately in relationships with preparation programs, including those with programs that support paraprofessionals moving into teaching roles. From a strategic perspective, it might work well for districts to identify students interested in teaching and assist nearby universities in recruitment.

Compensation. While districts may be unable to match every competitor district dollar for dollar, participants underscored the importance of communicating the full compensation package. This suggests that HR leaders should place greater emphasis on transparency about benefits, retirement, and other incentives so that teachers can weigh total value rather than base salary alone.

Grow-Your-Own Programs. GYO initiatives appear particularly well suited to rural or hard-to-staff districts. Supporting paraprofessionals or community members in completing certification fosters loyalty and builds a workforce tied to the local context. District leaders might consider allocating targeted funds for tuition assistance or flexible scheduling to make this pathway feasible.

Mentoring and Support. Participants stated that mentoring reduces anxiety and increases commitment. Districts should therefore formalize mentoring arrangements, provide release time for collaboration, and recognize mentors for their contributions. In some cases, early reassurance about support was enough to convince candidates to accept a position.

Data Use. Finally, HR leaders reported that recruitment has become more data-driven, while retention monitoring lags behind. This points to the need for progressive systems that capture teacher perceptions in real time. Even simple dashboards that track early signals, such as survey items on workload or morale, could provide leaders with actionable information.

Recommendations for Future Research

The findings of this study highlight several areas where additional research could extend and deepen current knowledge about teacher recruitment and retention. An important direction for future study is examining how teacher residency models, Grow-Your-Own initiatives, and university partnerships shape long-term outcomes, not only in terms of teacher persistence but also in relation to student learning. While participants consistently endorsed these strategies as promising, there appears to be limited empirical and qualitative evidence documenting their sustained influence on teacher quality, recruitment, persistence in the profession, and student achievement. Longitudinal research that follows cohorts of teachers across preparation, induction, and multiple years of classroom practice would help clarify whether these alternative pathways yield outcomes that differ from traditional certification routes. Such work would also provide insight into whether these programs contribute to stabilizing staffing in hard-to-serve schools.

A second research area is the role of leadership in recruitment and retention. Because the present study drew primarily on the perspectives of HR leaders, further inquiry is needed into the perspectives of principals and teachers. Comparative studies that triangulate these perspectives could better highlight the extent to which leadership practices are experienced consistently across organizational levels. Mixed-method designs, particularly those combining broad survey data with qualitative case studies, would be well-positioned to capture the prevalence of leadership practices and the nuanced ways they shape teachers' sense of professional support, belonging, efficacy, and desire to stay within a school district.

Teacher wellness and stress also emerged as salient issues requiring more systematic investigation. Although participants acknowledged the importance of wellness initiatives, they also indicated that existing efforts may not adequately address the pressures teachers face. Future research might therefore move beyond descriptive accounts to test targeted interventions, such as flexible scheduling models, enhanced behavioral support structures, or structured mentorship for stress reduction, using experimental or quasi-experimental approaches. Evidence from such studies would clarify which interventions are most effective in improving teacher well-being and reducing attrition across various district contexts.

A fourth line of inquiry involves the role of data in retention. While recruitment practices have become increasingly data-driven, retention monitoring remains largely reactive, relying on exit interviews or lagging survey results. Future studies could investigate the development and implementation of proactive systems, including predictive dashboards or "early warning" indicators that identify teachers at risk of departure before resignation occurs. In pursuing this research, scholars should also address the ethical implications of data use in human resources, ensuring that monitoring processes foster supportive interventions rather than punitive measures.

Finally, analyses across states or regions could broaden understanding of how different policies, funding structures, and labor market dynamics influence recruitment and retention strategies.

Texas provides a distinctive context given its size, geographic range, and decentralized district structure. However, examining similar dynamics in other states would help distinguish context-specific strategies from those with broader applicability. Such research would not only provide practical guidance for policymakers but also contribute to the literature in teacher recruitment and retention. In short, given the current national landscape of teacher shortages, new research is needed to better understand and inform school district practices.

References

- Avola, P., Soini-Ikonen, T., Jyrkiäinen, A., & Pentikainen, V. (2025). Interventions for teacher well-being and burnout: a scoping review. *Educational Psychology Review, 37*(11), Article 1. https://doi.org/10.1007/s10648-025-09986-2
- Charles Butt Foundation (2024). *The value of the Texas teaching profession*. https://online.fliphtml5.com/tbnuo/qdmn/ - p=1

- Darling-Hammond, L., & Podolsky, A. (2019). Breaking the cycle of teacher shortages: What kind of policies can make a difference? *Educational Policy Analysis Archives*, 27, 34. https://doi.org/10.14507/epaa.27.4633
- Dey, S. (2025, March 17). Texas schools have leaned on uncertified teachers to fill vacancies:

 Lawmakers want to put a stop to it.

 https://www.texastribune.org/2025/03/15/texas-school-funding-uncertified-teachers-shortage/
- Ferguson, K., Corrente, M., & Bourgeault, I. (2022). Mental health experiences of teachers: A scoping review. *Journal of Teaching and Learning*, 16(1), 23–43. https://doi.org/10.22329/jtl.v16i1.6856
- García, E., & Weiss, E. (2019). *U.S. schools struggle to hire and retain teachers: The second report in "The perfect storm in the teacher labor market" series*. Economic Policy Institute. https://www.epi.org/publication/u-s-schools-struggle-to-hire-and-retain-teachers-the-second-report-in-the-perfect-storm-in-the-teacher-labor-market-series/
- Ha, C., Pressley, T., & Marshall, D. T. (2025). Teacher voices matter: The role of teacher autonomy in enhancing job satisfaction and mitigating burnout. *PLOS ONE*, *20*(1), Article e0317471. https://doi.org/10.1371/journal.pone.0317471
- H.B. 2. (2025). Texas 89th Legislative Regular Session. https://legiscan.com/TX/bill/HB2/2025
- Han, S. W., Borgonovi, F., & Guerriero, S. (2018). What motivates high school students to want to be teachers? The role of salary, working conditions, and societal evaluations about occupations in a comparative perspective. *American Educational Research Journal*, 55(1), 3–39. https://doi.org/10.3102/0002831217729
- Hanushek, E. A., & Rivkin, S. G. (2012). The distribution of teacher quality and implications for policy. *Annual Review of Economics*, *4*,131-57. https://doi.org/10.1146/annurev-economics-080511-111001
- Harwin, A. (2024, October). *Teachers say the public views them negatively*. https://www.edweek.org/teaching-learning/teachers-say-the-public-views-them-negatively/20 https://www.edweek.org/teaching-learning/teachers-say-the-public-views-them-negatively/20 https://www.edweek.org/teaching-learning/teachers-say-the-public-views-them-negatively/20 https://www.edweek.org/teaching-learning/teachers-say-the-public-views-them-negatively/20 https://www.edweek.org/teaching-learning/teachers-say-the-public-views-them-negatively/20 https://www.edweek.org/teaching-learning/teachers-say-the-public-views-them-negatively/20 https://www.edweek.org/teaching-negatively/20 https://www.edweek.org/teaching-negatively/20 https://www.edweek.org/teaching-negatively/20 https://www.edweek.org/teaching-negatively/20 https://www.edweek.org/teaching-negatively/20 https://www.edweek.org/teaching-negatively/20 https://www.edweek.org/teaching-negatively/20 <a href="https://www.edweek.org/teach

- Holtom, B., Mitchell, J., & Lee, T. (2006). Increasing human and social capital by applying job embeddedness theory. *Organizational Dynamics*, 35(4), 316-331. https://doi.org/10.1016/j.orgdyn.2006.08.007
- Li, J., Mitchell, J. R., Lee, T. W., Eberly, M. B., & Shi, L. (2022). Embeddedness and perceived oneness: Examining the effects of job embeddedness and its trajectory on employee proactivity via an identification perspective. *Journal of Applied Psychology*, 107(6), 1020-1030. https://doi.org/10.1037/apl0000961.supp
- Kirksey, J. J. (2024). Amid rising number of uncertified teachers, previous classroom experience proves vital in Texas [Policy brief]. Texas Tech University College of Education. https://files.eric.ed.gov/fulltext/ED659927.pdf
- McKinley, D. (2023, July 11). Why teacher recruitment needs to change. INCompassing Education. https://www.incompassinged.com/post/teacher-recruitment-steps-involved-challenges-and-how-professional-development-can-play-an-import
- Mecham, E., Kozlowski, J., Messervy, F., Player, C., Lopez, J., Reina, L., & Justis, N. (2023). Onboarding experienced teachers in a new school. *Educational Research: Theory and Practice*, *34*(3), 117–132. https://files.eric.ed.gov/fulltext/EJ1403298.pdf
- Mitchell, J. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44(6), 1102-1121. https://doi.org/10.5465/3069391
- Morris, J. E., Lummis, G. W., Lock, G., Ferguson, C., Hill, S., & Nykiel, A. (2020). The role of leadership in establishing a positive staff culture in secondary school. *Educational Management Administration*, 48(5), 802-820. https://doi.org/10.1177/1741143219864937
- Nguyen, D., See, B. H., Brown, C., & Kokotsaki, D. (2024). Leadership for teacher retention: Exploring the evidence base on why and how to support teacher autonomy, development, and voice. Oxford Review of Education, 1-21. https://doi.org/10.1080/03054985.2024.2432635

- Pelzel, J. (2023, November 21). Facing a crisis head on: Solutions to recruiting and retaining teachers.

 https://content.acsa.org/facing-a-crisis-head-on-solutions-to-recruiting-and-retaining-teachers/
- Prananto, K., Cahyadi, S., Lubis, F. Y., & Hinduan, Z. R. (2025). Perceived teacher support and student engagement among students: A systematic literature review. *BMC Psychology, 13*, Article 112. https://doi.org/10.1186/s40359-025-02412-w
- Raise Your Hand Texas (2025). *Policy paper 2024: Teacher workforce*.

 https://www.raiseyourhandtexas.org/wp-content/uploads/2024/09/03_Policy-Paper-2024_Teacher-Workforce_FINAL.pdf
- Reinke, W.M., Herman, K.C., Stormont, M. & Ghasemi (2025). Teacher stress, coping, burnout, and plans to leave the field: A post-pandemic survey. *School Mental Health*, *17*, 32–44. https://doi.org/10.1007/s12310-024-09738-7
- See, B. H., Morris, R., Gorard, S., Kokotsaki, D., & Abdi, S. (2020a). Teacher Recruitment and Retention: A Critical Review of International Evidence of Most Promising Interventions. *Education Sciences*, 10(10), 262. https://doi.org/10.3390/educsci10100262
- See, B. H., Morris, R., Gorard, S., & El Soufi, N. (2020b). What works in attracting and retaining teachers in challenging schools and areas? *Oxford Review of Education*, 46(6), 678-697. https://doi.org/10.1080/03054985.2020.1775566
- Shaoan, M. M. R., Namanyane, T., Feng, M., & Arif, M. (2025). A systematic literature review on the importance of teacher recruitment and retention in global educational reform. *Frontiers in Education*, *9*, *Article* 1447752. https://doi.org/10.3389/feduc.2024.1447752
- Sorensen, L. C., & Ladd, H. F. (2020). The hidden costs of teacher turnover. *AERA Open*, *6*(1). https://doi.org/10.1177/2332858420905812
- Staake, J. (2025, June 9). 25 teacher shortage statistics that demand urgent action in 2025. https://www.weareteachers.com/teacher-shortage-statistics/

- Stark, K., & Daulat, N. (2025). Teacher well-being and teacher retention: Establishing a link. *Social Psychology of Education*, 28, Article 147. https://doi.org/10.1007/s11218-025-10109-6
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages:

 An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, 31(12), 1–28. https://files.eric.ed.gov/fulltext/EJ1213618.pdf
- Tajfel, Henri E. (1978). Differentiation between social groups: Studies in the social psychology of intergroup relations. Academic Press.
- Tan, T. S., Comai, S., & Patrick, S. K. (2025). State teacher shortages 2025 update: Teaching positions left vacant or filled by teachers without full certification. Learning Policy Institute. https://learningpolicyinstitute.org/product/state-teacher-shortages-vacancy-resource-tool-2025
- Tao, Y., Meng, Y., Gao, Z., & Yang, X. (2022). Perceived teacher support, student engagement, and academic achievement: A meta-analysis. *Educational Psychology*, 42(4), 401–420. https://doi.org/10.1080/01443410.2022.2033168
- Texas Education Agency. (2025a). Employed teacher attrition and new hires 2014-15 through 2023-24.

 https://tea.texas.gov/reports-and-data/educator-data/employed-teacher-attrition-and-new-hires-2023-2024.pdf
- Texas Education Agency (2025b). *Newly certified and new teacher hires dashboards*. https://tea4avcastro.tea.state.tx.us/oess/edrs/regional-dashboards/
- Texas Education Agency. (2025c). *Teacher shortage areas 2025-2026*. https://tea.texas.gov/texas-educators/educator-initiatives-and-performance/teacher-shortage-areas-2025-2026
- **Thompson-Lee, S., See, B. H., & Klassen, R. M. (2025).** A systematic review of STEM teacher recruitment and retention interventions. *International Journal of STEM Education, 12, Article* 33. https://doi.org/10.1186/s40594-025-00550-6

- Van Beurden, J., Van De Voorde, K., & Van Veldhoven, M. (2021). The employee perspective on HR practices: A systematic literature review, integration and outlook. *The International Journal of Human Resource Management*, 32(2), 359–393. https://doi.org/10.1080/09585192.2020.1759671
- Williams III, J. A., Hill-Jackson, V., Caldwell, C. & Craig, C. (2022). Teacher recruitment and retention: Local strategies, global inspiration. *Journal of Teacher Education*, 73(4), 333-337. https://doi.org/10.1177/00224871221118155
- Wilson-Heenan, I., De Paor, D., Lafferty, N., & Mannix McNamara, P. (2023). *The Impact of Transformational School Leadership on School Staff and School Culture in Primary Schools—A Systematic Review of International Literature*. Societies, 13(6), Article 133. https://doi.org/10.3390/soc13060133

Food Marketing: Effectiveness of Marketing and Advertising Messages

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Abstract

To understand the impact of marketing and advertising messages on food choices, this paper studies how a consumer's focus (preventative vs. promotion) makes a significant difference. Practical and managerial implications are drawn from the results of these hypothesis tests.

Promotion-focused individuals are driven by the need to pursue gains in contrast with prevention-focused people driven by the need to avoid losses. These behaviors are applied to the context of food choice. For example, prevention-focused individuals are likely to carefully evaluate product labels, prioritize nutritional safety, and choose familiar options. These food decisions are driven by a desire to avoid negative outcomes—such as health risks or low-quality ingredients. However, promotion-focused consumers may embrace indulgence and novelty. Also, different variables are found to have greater or lesser impact for consumers with lower or higher prevention vs. promotion focus. Other tests indicate that when prevention focus is high, the determinants are more utilitarian — such as the familiarity of the food and the ability to control one's weight. However, when prevention focus is low, the determinants are more hedonic — such as how it makes one feel and how convenient it is to buy and make. Effects of income and education are also examined.

Key words: Food Marketing/Advertising, Preventive focus, Promotional focus, Gender differences.

Introduction

The major objective of this research is to see how the differential impact of preventive and promotion focus can provide recommendations to advertising messages in the marketing of food products.

Marketing and advertising messages have a great deal of influence on food choices. This paper is focused on how such messages can be more effective in terms of marketing food to individuals. Effects of regulatory focus (Preventative vs. Promotional), gender, education, and income are examined. In this paper, a promotion-focused individual is driven by the need to pursue gains unlike a prevention-focused person who is driven by the need to avoid losses. The operationalizations of these terms are shown in Table 1. These general behaviors are applied to the context of food choice in this paper.

Literature Search and Generation of Hypotheses

Due to their direct impact on individuals' health conditions, numerous studies across multiple disciplines have scrutinized how emotions influence consumers' decisions to choose between healthy

and unhealthy foods. In the present study, a review of the marketing literature was conducted to synthesize previous studies' findings on the link between emotions and unhealthy food consumption. The results reveal four distinct paths in the literature when examining the impact of consumers' emotions on their unhealthy food consumption. The first research theme suggests that individuals turn to unhealthy food consumption to manage their negative emotional states, considering food consumption as a coping mechanism. Studies in the second theme highlight the gratifying nature of food and the significance of indulgence in rationalizing unhealthy food consumption, where consuming unhealthy food becomes a means of reward and pleasure. The third research theme delves into the multidimensional nature of emotions and their impact on food consumption, going beyond valence while the fourth theme focuses on food sensation and its moderating effects on emotions. Researchers within this theme argue that understanding emotions' various dimensions is crucial in studying their influence on food choices. (Khoshghadam, L., & Rajabi, R. 2024).

A study by Wagner, Howland, and Mann (2014) explored the effects of subtle and explicit health messages on food choice. The research found that a subtle health message, conveyed through an image, was more effective in influencing individuals to select healthy food options compared to an explicit message labeling an item as healthy. The results indicated that the image-based subtle message had a greater impact on food choice, particularly among female participants. The study suggested that subtle messages may operate implicitly, outside conscious awareness, and could minimize reactance or the license to indulge. Furthermore, the research highlighted the potential role of dual process models in explaining these effects, emphasizing the importance of considering cognitive resources in response to health messages. Overall, the findings underscored the effectiveness of subtle health messages in promoting healthy food choices over explicit health labeling, offering a promising strategy for health communication initiatives. Wagner, H. S., Howland, M., & Mann, T. (2014).

Verbeke discusses the impact of communication on consumers' food choices, emphasizing the challenges faced in promoting positive outcomes like health and nutritional benefits. The paper highlights that health and nutrition considerations compete with taste, price, and convenience in food choices. Factors influencing behavior change and information processing are crucial in determining consumers' willingness to engage with food-related information. The effectiveness of communication efforts in improving consumer knowledge, attitudes, and behavior hinges on consumers perceiving the need for information and the benefits of active reasoning. This includes reducing uncertainty, enhancing knowledge, and aiding in decision-making aligned with individual preferences. (Verbeke, W., 2008).

Advertisers use various psychological principles to influence consumers' moods and behaviors. Techniques such as creating reciprocity, fostering commitment, and establishing authority are commonly employed to enhance the emotional appeal of advertisements. These principles help capture attention and evoke positive emotional responses, leading to better ad recall and increased purchase intentions. (The Chicago School of Professional Psychology, 2020).

Emotional appeals are particularly effective in younger audiences and can lead to irrational shopping behaviors, demonstrating the strong influence of mood on consumer decisions. (Vrtana & Krizanova 2023). Zimmerman and Shimoga (2014) examined the effects of food advertising and cognitive load on food choices. The study results raise the possibility that "food marketing may have disparate effects across different populations, disproportionately influencing the eating behaviors of some of the most vulnerable subgroups and potentially contributing to disparities in diet and in related health outcomes".

"Marketing works". These opening words of the Institute of Medicine's report on food marketing to children [14] apply to adults as well as to children. These study results suggest that food marketing may have disparate effects across different populations, disproportionately influencing the

eating behaviors of some of the most vulnerable subgroups and potentially contributing to disparities in diet and in related health outcomes.

Hashim et al. (2018) concluded that "the influence of mobile marketing on consumer purchase intention and consumer attitude in Malaysia shows the attitude towards mobile advertising has a positive relationship with purchase intention. They suggested that factors such as the length of time and timing of advertisements may contribute to this relationship, referencing a study by Boyd and Mason (1999) which found that length of time affects purchase intention".

The researchers highlighted that sending information to consumers at inopportune times, such as when not coinciding with pay day, can result in low intention to purchase advertised products or services (Hashim et al., 2018, p. 18). They also found that subjective norms have a strong relationship with intention to purchase in mobile advertising. The authors noted that this result is consistent with past studies, such as Isaid and Faisal (2015), and aligns with the extended theory of reasoned action (Ajzen & Fishbein, 1980).

Hashim et al. (2018) summarized that their study focused on entertainment, informativeness, irritation, credibility, and subjective norms as factors influencing Malaysian consumers' attitudes towards mobile advertising message content and purchase intention (p. 1201). They reported significant effects for all factors except irritation and credibility, which showed no significant effects on attitudes and purchase intention.

The authors concluded by calling for further investigation into these non-significant factors. Hashim et al. (2018) recommended that future studies should be more rigorous, with an extensive sample size, and should focus particularly on Gen-Y or young consumers, as they are more influenced by and active on mobile devices (p. 1201).

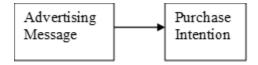
Kalog et al. (2022) conducted a study examining the influence of food advertisements on university students' food choices and nutritional status in Ghana. The research revealed that "the internet was the primary source of food advertisements (58.9%), followed by television (21%) (Kalog

et al., 2022, pp. 6-8). Students' food decisions were influenced by factors including advertisements, taste, price, familiarity, and appearance. Notably, exposure to food advertisements did not significantly impact students' Body Mass Index (BMI)".

The study found low consumption of advertised fruits and vegetables among students, contrasted with higher uptake of sugar-sweetened beverages, prepared meals, and high-fat pastries. The researchers suggested that health authorities could utilize internet and television advertising to promote nutritious food choices among students. They also emphasized the need for further research into the influence of environmental factors and advertising on students' eating habits and dietary patterns (Kalog et al., 2022, pp. 6-8).

Their study highlights the complex interplay between food advertising, student food choices, and nutritional outcomes in a Ghanaian university context, suggesting potential for targeted interventions using popular media channels to improve dietary habits among university students. Based on the above findings, we postulate:

H1: The Advertising message is a primary determinant of Purchase intention.



Young and Hetherington (1996) concluded that evidence exists for short-term effects of food product advertising, particularly cereals, on children's brand preferences and choices. The authors noted a correlation between the presence of cereal brands in households and children's exposure to commercials for these brands.

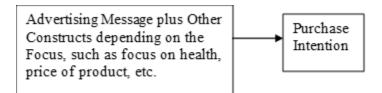
Vecchi et al. (2024) conducted two online experiments with 940 adolescents aged 13-17 to examine the effects of online food advertisements and emotions on food choices. The study found that negative emotions increased the selection of unhealthy sweet snacks, resulting in food choices with higher added sugars and lower dietary fiber. "There was no overall impact of food

advertisements on snack selection. Weak evidence suggested that positive or neutral emotions combined with food advertisements led to selections with higher added sugar and lower fiber density".

The authors noted limitations, including potential inaccuracies in self-reported BMI and the delay between food selection and consumption. They suggested that future research should investigate non-traditional advertising types, peer versus celebrity influence, and targeted brand effects. The study has implications for food marketing strategies and highlights the need for targeted interventions in emotional intelligence education and advertising literacy, particularly for specific demographic groups. We postulate:

H1a: The determinants of Purchase intention vary depending on levels of Prevention Focus.

H1b: The determinants of Purchase intention vary depending on levels of Promotion Focus.



Lin (2015) found that "health-related advertisements were more effective when they aligned with viewers' regulatory focus and utilized an appropriate graphics-text ratio. For promoting health and lifestyle changes, ads should use minimal graphics, extensive text, and a promotion-focused message emphasizing benefits." Conversely, for disease prevention (e.g., colorectal cancer), ads should employ more graphics, less text, and a prevention-focused message highlighting negative consequences of inaction.

These studies highlight the importance of regulatory focus theory (RFT) in understanding consumer motivations and predicting advertising effectiveness. Shao et al. (2015) emphasize that consumers cannot be categorized into simple promotion or prevention focus groups, advocating for a more nuanced, quadratic approach to self-regulatory focus (SRF) in future research.

Lin and Yeh (2017) found that "viewers' regulatory focus can be temporarily altered by advertisements, influencing attitudes and behavioral intentions. They suggest that aligning message framing with regulatory focus can enhance comprehension and accessibility of health-related advertisements. The study also noted differences in effect sizes among actual behavior, attitudes, and behavioral intentions, with behavioral intentions showing the largest effect".

Both studies underscore the importance of tailoring advertisement content and presentation to match the target audience's regulatory focus, whether inherent or temporarily induced, to maximize persuasiveness and impact on consumer behavior.

Yousef et al. (2021) concluded "the superiority of negative advertising appeals over positive and coactive appeals in social media advertising for environmental and charity contexts. Negative appeals were found to be more effective in engaging audiences and positively influencing social behavior". This research extends the application of Shawky et al.'s (2020) multi-actor social media engagement framework, demonstrating its value in assessing the effectiveness of social advertising appeals and evaluating behavioral outcomes.

Micu and Chowdhury (2010) suggest that "product type may play a crucial moderating role in the impact of goal compatibility on advertising effectiveness. While previous research has shown that promotion-framed information is more persuasive for individuals with promotion goals and prevention-framed information for those with prevention goals (Aaker & Lee, 2001), their results indicate that marketers should also consider the type of product being offered. For instance, regardless of an individual's prevention or promotion goals, a person seeking a hedonic product may not be persuaded by a prevention-focused message, and vice versa for utilitarian products". Additionally, our findings build on Mogilner et al.'s (2008) work, suggesting that the temporal proximity of a purchase may interact with product type in determining the effectiveness of promotion versus prevention-focused messages.

A study by Sesar et al. (2022) included findings that have several important implications for influencer marketing strategies. Firstly," influencers should explicitly disclose paid advertising in their posts, as this transparency positively affects their perceived credibility among consumers". This recommendation applies equally to both micro-influencers and celebrity influencers, as no significant difference was found in participants' perceptions based on influencer type.

Secondly, the research confirms that "influencer credibility directly impacts brand awareness and purchase intention. Influencers who clearly disclose their sponsorship status are perceived as more credible, which in turn enhances brand recognition and awareness. This increased brand awareness subsequently has both direct and indirect positive effects on consumers' purchase intentions".

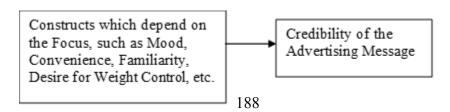
The study also reveals that influencer credibility positively and significantly influences brand awareness, which in turn significantly affects purchase intention. These findings underscore the importance for brand managers to consider influencer credibility when developing marketing strategies. Additionally, communication policies, including advertising disclosure, should incorporate various activities to boost brand awareness, as this enhances both direct consumer purchase intentions and the effectiveness of influencer credibility.

So, we postulate the following set of hypotheses:

H2: The credibility of the Advertising message is determined by different dimensions (such as Mood (how it makes me feel) and Familiarity (how familiar I am with the food).

H2a: The credibility of the Advertising message is determined by different dimensions, depending on the levels of Prevention Focus.

H2b: The credibility of the Advertising message is determined by different dimensions, depending on the levels of Promotion Focus.



A higher proportion of women focus on nutritional value of food and prioritize healthy eating more so than do men. We found that the foods or food components most viewed as "very unhealthy" and most avoided were sugar, food additives, alcohol, saturated fat, and white flour. This is in line with previous findings that women perceive sweet foods as less healthy and avoid consumption of high fat foods to a higher extent, compared to men. Bärebring, Palmqvist &Winkvist, 2020).

Alignment between regulatory focus and message framing enhances ad effectiveness. Promotion-focused individuals are more influenced by gain-framed messages, while prevention-focused individuals respond better to loss-framed messages. (Higgins, 1997).

Women may be more prevention-focused, emphasizing safety and responsibility, while men may be more promotion-focused, aiming for achievements and gains. This difference impacts their food choices, with women avoiding unhealthy options and men being more open to trying new foods.

Hiller et al. (2017) concluded "comprehensive overview of gender differences across diverse topics in primary prevention, revealed that women are generally more inclined than men to engage in health behaviors associated with primary prevention. While the study confirms the existence of gender differences, the implications for healthcare systems and policy measures remain unclear."

When considering the broader context of primary prevention, the review suggests that being female tends to promote more effective preventive behaviors. However, the authors stress that additional studies are necessary to clarify the effects and draw more definitive conclusions that could inform appropriate healthcare and policy interventions.

This review underscores the importance of considering gender as a significant factor in primary prevention strategies, while also highlighting the need for more targeted research to fully understand and leverage these differences in public health initiatives.

Osborn et al. (2016) reported that gender, grade classification, weight perception, and worrying about weight were associated with BMI. They noted that in a multiple regression analysis, gender was related to BMI. The researchers found that seniors had significantly higher BMI measurements than first-year students, indicating a relationship between grade classification and BMI. Additionally, they observed that those who reported "always worrying about weight" were the only group to have BMI in the obese category. Finally, Osborn et al. (2016) concluded that there were significant relationships between BMI and weight perception (p. 297).

So, we postulate the following hypotheses:

H3: Females have a higher score on each of the dimensions of the study.

H3a: High Preventative Focus individuals show significant differences between males and females on different dimensions than Low Preventative Focus individuals do.

H3a: High Promotion Focus individuals show significant differences between males and females on different dimensions than Low Promotion Focus individuals do.

Ziso et al. (2022) suggested that food insecurity is a widespread issue in the United States, significantly impacting quality of life and increasing risks for obesity, diabetes, and cardiovascular diseases." The authors identified several barriers to food security in certain areas, including lack of transportation, food deserts or food swamps, and insufficient nutrition education. Their review paper examined various approaches to reduce food insecurity in low-income communities and improve access to healthy foods, particularly fruits and vegetables."

The researchers found that multilevel approaches yielded the most notable results, addressing a wide range of factors. These approaches incorporated nutrition education, taste-testing events, price reductions on healthy products, improved access to healthy options, and policy changes. However, they noted that a major limitation of multilevel approaches is the difficulty in identifying which specific components led to changes in food behaviors.

Ziso et al. (2022) also highlighted other limitations in existing studies, such as small sample sizes, predominantly female participants, self-reported data, and potential bias. They emphasized the need for further research, particularly on the impact of perceived food environments on purchasing and consumption habits. The authors suggested that future studies should focus on developing and validating multi-dimensional interventions tailored for target populations with special needs and barriers, as well as examining the influence of perceived food environments and social support on improving diet quality in populations with limited access to healthy foods.

Klink et al. (2023) conducted a qualitative evidence synthesis on the perception of healthy eating among adult populations in high-income countries. The authors found that while individuals generally understand dietary recommendations, they attribute diverse meanings to healthy eating and food, which likely influences their dietary behaviors. The study suggests that to improve population dietary habits, it is crucial to carefully phrase and consistently communicate dietary recommendations in a way that associates healthy eating with pleasure and immediate well-being, while considering people's daily realities.

The researchers noted limitations in the current literature, particularly regarding underserved populations. They emphasized the need for further in-depth research to better understand perceptions and constructions of healthy eating, including specific food-related values held by different populations and their influence on diet-related behaviors.

Klink et al. (2023) cautioned that the beliefs identified in their review should not be interpreted as a comprehensive representation of all adult populations in high-income countries. Instead, they should be viewed as a compilation of various attitudes toward healthy eating that can exist. The authors also highlighted their intention to investigate socioeconomic differences in participants' views, but were unable to do so reliably due to a lack of diversity in low-income populations and clear specification of socioeconomic status in the included studies.

This review provides valuable insights for developing consumer-oriented, practicable, and acceptable food policies, behavioral medicine interventions, and dietary recommendations that can effectively improve population health and well-being.

This leads to H4: Higher-income individuals tend to be more concerned about placing a greater emphasis on their perceived weight and eating food that is healthy-nutritious-good for them. No difference is expected on propensity toward a Preventative vs. Promotion Focus.

Sogari et al. (2018) conducted a study on college students' eating habits using an ecological model for healthy behavior. The researchers aimed to understand the individual, social, and environmental factors influencing students' healthy eating choices, rather than providing specific nutritional recommendations. They found that participants' food choices were influenced by a combination of individual, social, and university environmental factors.

The authors emphasized the importance of using an Ecological Model to gain insights into students' food choices and support healthier behaviors. They suggested that colleges and campus dining halls play a crucial role in guiding healthy eating behaviors and should take the lead in creating a healthy environment for students.

Sogari et al. (2018) argued that understanding the reasons behind unhealthy eating behaviors among young adults is essential for developing effective policies and managerial strategies to address various forms of malnutrition, including obesity, anorexia, and micronutrient deficiencies. The study presented opinions and recommendations for effective, tailored intervention programs and environmental modifications to support healthy eating, using an ecological framework that combined psychological, social, and environmental strategies.

Lee et al. (2022) examined the relationships between food literacy, health promotion literacy, and healthy eating habits among young adults in South Korea, with a focus on the moderating effects of information sources. The researchers investigated how individuals' primary information pathways,

specifically mass media and interpersonal networks, influenced the development of food and health promotion literacy.

The study found that while there was no significant difference between individuals who relied on mass media versus interpersonal networks, the effectiveness of each information source was clearly identified. This finding suggests a new direction for future research in literacy studies, emphasizing the importance of identifying the most effective information tools for enhancing different dimensions of literacy.

Lee et al. (2022) highlighted several practical implications from their research: "Governments, educational institutions, and researchers should focus more on the potential of food literacy and health promotion literacy as efficient ways to address the growing obesity problem in modern society". Stakeholders in the food system and health education sector should collaborate to develop systematic intervention plans for enhancing people's literacy competencies.

"The authors recommended establishing mandatory educational interventions within school curricula to ensure all individuals have the opportunity to improve their food and health promotion literacies from an early age."

This study contributes to the field by examining literacy concepts from a new perspective and emphasizing the importance of information sources in literacy development.

This leads to H5 as shown below.

H5: Higher-education individuals tend to be more concerned about placing a greater emphasis on Preventative Focus and eating food that is healthy-nutritious-good for them.

Methodology

Participants were recruited from faculty and staff members of a Southern university in the United States to participate in an online survey using the SurveyMonkey program. The website link was forwarded to the selected participants via e-mail. When participants clicked the link, they entered the survey website. The cover sheet indicated that the purpose of the study was to examine

subjects' opinions of some foods and what was of interest was their general reaction to the food. They were asked to look at the image of the plate, evaluate the food, and answer the questionnaire. They answered some demographic questions and submitted their answers. Finally, they entered their office telephone number to win one of three \$20 sweepstakes for participating in the study.

Description of the sample:

- Total sample size: 278 (Note: Due to missing responses, the total of the values in each of the following segment breakdowns is not always 278.)
- Breakdown by Gender: Female: n = 175; 66%. Male: n = 89; 34%.
- Breakdown by Preventive Focus:
 - Average = 2.95 on a 5-point Likert scale.
 - o Low Preventive: 1-2.99 (n = 150, 54%)
 - \circ High Preventive: 3+ (n = 128, 46%)
 - o Note that this breakdown has close to an even split between the categories
- Breakdown by Promotion Focus:
 - Average = 3.89 on a 5-point Likert scale.
 - o Low Promotion: 1-3.89 (n = 133, 48%)
 - \circ High Promotion: 3.9+ (n = 145, 52%)
 - o Note that this breakdown has close to an even split between the categories
- Breakdown by Income:
 - o Low: Less than \$65,000/year (n = 133; 51%)
 - o High: \$65,000/year or higher (n=126: 49%)
 - o Note that this breakdown has close to an even split between the categories
- Breakdown by Education:
 - o Low: Less than College Graduate (n = 110; 42%)

• High: College Graduate or Graduate School (n = 153; 58%)

Measures and variables included:

• A statement to measure the perceived weight level, I am afraid that I am overweight, at a 5-point scale (1=strongly disagree and 5=strongly agree).

- Ad Effectiveness. In this paper, ad effectiveness refers to the consumer attitude toward the persuasiveness of food advertisements with claims that articulate the evidence in support of the food being advocated. Ad effectiveness was measured using the scale adapted from the scale by Lang and Yegiyan (2008). The four items (each rated on a 5-point Likert type scale) were: (1) This claim in this ad got my attention; (2) This claim in this ad was convincing; (3) This claim helped me feel confident about how best to deal with food; (4) this claim helped me to decide if I am going to buy the item or not. The average value for each claim was computed by summing the average item for all the claims. The reliability alpha for this scale is .862.
- Attitude/Evaluation toward Food. In this study, Attitude toward food represents the individual's favorable or unfavorable reaction to the advertised food. To measure food evaluations, we use a four-item, five-point semantic scale created by Barone, Shimp and Sprott (1997), on which 1 reflects a very negative evaluation of the food and 5 indicates a very positive evaluation. Subjects were asked to indicate their attitude toward food by checking the appropriate point. We sum the responses to the question items, such as Overall, this ____ looks|| bad/good, undesirable/desirable, worthless/worthwhile, and useless/useful, to achieve a composite value. The reliability alpha for this scale is .902.
 - Other constructs and reliability measures are described in Table 1.

Table 1 goes here

With the exception of Packaging Average (0.681), all the values of Cronbach's alpha are in the acceptable range (0.75 or higher).

Analysis and Results

H1: The Advertising message is a primary determinant of Purchase intention.

A regression analysis was run with Purchase intention as the dependent variable and several independent variables: the composite scores for Health, Weight, Healthy-Nutritious-Good for me, Mood, Convenience, Sensory, Natural ingredients, Price, Weight control, Familiarity, Packaging, Ad effectiveness, and Message average. See Table 2 for the results.

Table 2 goes here

F = 95.065, p < 0.001

Of all the independent variables, the Ad Message was the only one that was found to be significant. This variable is a measure of how consistent the message is with the consumer's perceptions: The message in the ad is very true, I agree with the message in the ad, I'd say the same things to my friend, and the message conveys my life philosophy. If there is a close fit between my beliefs and what the message says, I am more likely to purchase the product. While this is intuitively obvious, we will now examine if (preventive and promotional) regulatory focus will impact this basic relationship.

To conceptually illustrate the distinction between **prevention-focused** and **promotion-focused** consumers, consider the behavioral patterns of two contrasting personas:

A **prevention-focused individual**, such as *Mary, a 32-year-old health-conscious nurse*, is likely to carefully evaluate product labels, prioritize nutritional safety, and choose familiar, risk-free options. Her food decisions are driven by a desire to avoid negative outcomes—such as health risks,

weight gain, or low-quality ingredients. This persona reflects the core characteristics of prevention-focused consumers who are motivated by caution, responsibility, and long-term well-being.

In contrast, a **promotion-focused persona**, like *Jake*, a 29-year-old adventurous foodie, embraces indulgence, novelty, and reward. He is likely to seek bold flavors, variety, and exciting experiences—even if they come with some uncertainty or excess. Promotion-focused consumers prioritize gaining something—pleasure, variety, social recognition—and are more likely to respond to food advertising that emphasizes opportunity, excitement, or personal gratification.

This contrast not only exemplifies how **regulatory focus theory** plays out in food marketing contexts but also supports the hypothesis that tailoring advertising messages to align with a consumer's regulatory orientation can significantly impact **purchase intention and product evaluation**.

H1 was supported.

H1a: The determinants of Purchase intention vary depending on levels of Prevention Focus.

Table 2a goes here

Flow = 18.449, p < 0.001

Fhigh = 29.394, p < 0.001

We note from Table 2a, that the Advertising message continues to be significant in both cases, but:

o When Prevention Focus is high, we see that the Health average has a positive coefficient, which means that the higher the belief that "I am in good health" the purchase intention for healthy foods is higher. But, when Prevention Focus is low, we

see that Health average has a negative coefficient, which means that the higher the

belief that "I am in good health" the purchase intention is lower.

o Price becomes a significant factor for the purchase of healthy foods when Prevention

Focus is low. It is not a significant factor for those with high Prevention Focus.

To illustrate how varying levels of **prevention focus** influence purchasing behavior,

particularly in response to price, consider a scenario where consumers choose between two yogurt

options. A high prevention-focused individual, driven by health-consciousness and a desire to avoid

negative outcomes, is more likely to select a premium-priced yogurt such as Olympic Greek Yogurt

at \$6.99. This choice reflects not only concern for quality and safety but a willingness to pay a

premium for perceived nutritional superiority and trust in the brand.

In contrast, a low prevention-focused consumer, though still mindful of health, may experience

price as a critical decision factor. Faced with a similar product—Yoplait Original Yogurt priced at

\$1.99—this individual may favor the lower-cost option, rationalizing that it meets basic standards

without the added financial burden. For this segment, the extra cost of the premium product becomes

unjustifiable, especially if health risks are perceived as minimal or manageable.

This distinction reinforces the finding that price becomes a deal-breaker when prevention focus is

low. While both consumers may value health, the willingness to invest in it differs. Those with high

prevention focus override price sensitivity in favor of safety, while those with low prevention

focus allow cost considerations to dominate, even if it means accepting slightly higher risk or lower

quality.

H1a is supported.

H1b: The determinants of Purchase intention vary depending on the levels of Promotion Focus.

Table 2b goes here

198

$$F_{low} = 48.489, p < 0.001$$

$$F_{high} = 26.198, p < 0.001$$

We note form Table 2b that the Advertising message continues to be significant in both cases, but:

When Prevention Focus is high, we see that Advertising effectiveness becomes a significant factor. This is consistent with the approach of high Promotion Focus individuals.

From H1a and H1 b, we note that, not only do High Prevention Focus individuals have different messages that appeal to them relative to Low High Prevention Focus individuals, but that is also true relative to High Promotion Focus individuals and Low Promotion Focus individuals.

	Low	High
Preventative Focus	Message, Health (-), Price (-)	Message, Health (+)
Promotion Focus	Message	Message, Ad effectiveness

To illustrate how different levels of **promotion focus** influence consumer choice, consider the example of a fast-food purchase decision. A **low promotion-focused consumer** prefers consistency and familiarity. Presented with meal options, this consumer simply **grabs the regular KFC bucket meal**—a known, reliable choice that delivers satisfaction without the need for novelty or external validation.

In contrast, a **high promotion-focused consumer** seeks experiences that are novel, exciting, or aspirational. For this individual, the decisive factor is **not the product itself**, **but the meaning and identity associated with it**. The same chicken meal, when endorsed by a global sports icon like Cristiano Ronaldo, becomes more than just food—it becomes a statement of identity, passion, and

personal alignment with excellence. The consumer is thrilled to purchase a personalized or

celebrity-branded combo, feeling an emotional reward linked to recognition, excitement, and status.

Thus, while the product (chicken) remains fundamentally the same, what tips the scale for

the high promotion-focused consumer is the emotional and symbolic payoff—the sense of being

part of something bigger or being seen. For low promotion-focused individuals, such cues are less

influential; the focus remains on immediate gratification and simplicity.

This distinction confirms that the intensity of promotion focus directly shapes which cues hold

persuasive power—familiarity versus personal aspiration—influencing not just what is chosen, but

why it is chosen. H1b is supported.

H2: The credibility of the Advertising message is determined by different dimensions (such as Mood

(how it makes me feel) and Familiarity (how familiar I am with the food).

A regression was run with Advertising message as the dependent variable and the following

variables as independent variables: Health, Weight, Healthy-Nutritious-Good for me, Mood,

Convenience, Sensory, Natural ingredients, Price, Weight control, Familiarity, and Packaging. See

Table 3 for the results.

Table 3 goes here

F = 17.087, p < 0.001

H2 is supported.

H2a: The credibility of the Advertising message is determined by different dimensions, depending on

the levels of Prevention Focus.

Table 3a goes here

200

$$F_{low} = 17.052, p < 0.001$$

$$F_{high} = 10.335, p < 0.001$$

We note that when Prevention Focus is high, the determinants are more utilitarian – such as the familiarity of the food (what I usually eat) and the ability to control my weight. However, when Prevention Focus is low, the determinants are more hedonic – such as how it makes me feel and how convenient it is to buy and make.

H2a is supported.

H2b: The credibility of the Advertising message is determined by different dimensions, depending on the levels of Promotion Focus.

Table 3b goes here

$$F_{low} = 16.530, p < 0.001$$

$$F_{high} = 11.228, p < 0.001$$

We note, from Table 3a, that when Promotion Focus is low, the determinants are more utilitarian (similar to when Prevention Focus was high)— such as the familiarity of the food (what I usually eat) and the belief that the food is healthy, nutritious and good for me. However, when Prevention Focus is high, one determinant is more hedonic — such as how it makes me feel (just as it was for low-Prevention Focus individuals), but the other one is utilitarian (it helps me control my weight).

	Low	High
Preventative Focus	Mood, Convenience	Familiarity, Weight Control

	Familiarity,	Mood, Weight Control
Promotion Focus	Healthy-Nutritious-Good	
	for me	

H2b is supported.

H3: Females have a higher score on each of the dimensions of the study.

See results in Table 4.

Females have a numerically higher score on all the dimensions in Table 4. The highlighted cells indicate the dimensions on which females have a statistically significantly higher score (p < .05).

H3a: High Preventative Focus individuals show significant differences between males and females on different dimensions than Low Preventative Focus individuals do.

The highlighted cells in Table 4a indicate dimensions for which there is a significant difference between males and females. In every case where a significant difference exists, the female score is significantly higher than the male score.

Except for the Healthy-Nutritious-Good for me average dimension, where female scores are significantly higher than male scores for both, Low and High Preventative Focus individuals, H3a is supported.

High Preventative Focus individuals show significantly higher scores for females on the following dimensions:

- Health (I take less medicine, I am in better health, no physical problems)
- Mood (cheers me up, makes me feel good)
- Natural ingredients

H3b: High Promotion Focus individuals show significant differences between males and females on different dimensions than Low Promotion Focus individuals do.

Table 4b goes here

The highlighted cells in Table 4b indicate dimensions for which there is a significant difference between males and females. In every case where a significant difference exists, the female score is significantly higher than the male score.

Except for the Healthy-Nutritious-Good for me average dimension, where female scores are significantly higher than male scores for both, Low and High Promotion Focus individuals, H3b is supported.

High Promotion Focus individuals show significantly higher scores for females on the following dimensions:

- Perceived weight.
- Food contains natural ingredients.

The conclusions of H3, H3a, and H3b are consistent with the findings of Bärebring, L., Palmqvist, M., Winkvist, A. et al., Haron, S. A. (2015), and Hiller et al. (2017), referred to in the literature review earlier in this paper. Females, in general, exhibit more effective preventive behaviors. Osborn et al. (2016) reported that gender, grade classification, weight perception, and worrying about weight were associated with BMI.

H4: Higher-income individuals tend to be more concerned about placing a greater emphasis on their perceived weight and eating food that is healthy, nutritious-good for them. No difference is expected on propensity toward a Preventative vs. Promotion Focus. See Table 5.

Table 5 goes here

H4 is partially supported.

Based on Table 5, higher-income individuals were found to be significantly more concerned about placing a greater emphasis on their perceived weight and eating food that is healthy-nutritious-good for them. However, lower-income individuals were found to be significantly more likely to have a Preventative Focus. No statistically significant differences by income were found for those with a Promotion Focus.

Higher-income individuals were found to be significantly *less* concerned about a Preventative Focus, but they were found to have a significantly *higher* emphasis on eating food that is healthy-nutritious-good for them.

As noted earlier in the paper, Klink et al. (2023) found that while individuals in high-income countries generally understand dietary recommendations, they attribute diverse meanings to healthy eating and food, which likely influences their dietary behaviors. The study suggests that it is crucial to carefully phrase and consistently communicate dietary recommendations in a way that associates healthy eating with pleasure and immediate well-being. Ziso et al. (2022) emphasized the need for further research, particularly on the impact of perceived food environments on purchasing and consumption habits.

H5: Higher-education individuals tend to be more concerned about placing a greater emphasis on Preventative Focus and eating food that is healthy-nutritious-good for them.

Table 6 goes here

Based on Table 6, H5 is partially supported.

As mentioned earlier, Wood and Shukla (2016) suggested that the promotion of healthy eating through social marketing and educational programs should be accompanied by actions to dispel myths and assumptions about the causes of obesity. They emphasized that social marketers and public health professionals should work to improve health and life outcomes by encouraging or enabling behavior change for weight loss, and support population-wide interventions and policy initiatives to tackle obesity.

Discussion: Conclusions and Recommendations

The analysis of consumer behavior concerning health-oriented food products has uncovered significant insights into the factors influencing consumer attitudes and behaviors. Key factors examined include perceived weight issues, educational background, income levels, and gender. Utilizing statistical methods such as independent samples t-tests and mean comparisons, this study has illuminated differences in attributes like Preventative Focus, Promotion Focus, and Purchase Intention.

The study reveals that Promotion Focus and Prevention Focus are crucial determinants in consumer decision-making related to food choices. Individuals with a low Promotion Focus tend to prioritize practical, utilitarian considerations, such as health benefits and familiarity with food items, consistent with findings from Haron et al. (2015). In contrast, those with a high Promotion Focus are more inclined towards emotional and psychological benefits, including mood enhancement and weight control, aligning with Osborn et al. (2016).

Consumers who perceive themselves as having weight problems show a stronger inclination towards products deemed beneficial for weight management and overall health. This group demonstrates higher scores across various dimensions including Purchase Intention, Health average, Healthy-Nutritious-Good for Me, Mood average, Convenience average, Sensory average, Natural Ingredients, Price average, Weight Control average, Familiarity average, and Packaging average. This

correlation underscores the profound impact of perceived weight concerns on the prioritization of health-oriented product attributes.

Higher-educated individuals display a greater Preventative Focus and place higher value on health attributes. They show a stronger appreciation for products aligned with preventative health measures, as evidenced by higher ratings for Health average and Healthy-Nutritious-Good for Me. The lower familiarity with certain products and perception of reduced advertising effectiveness among higher-educated consumers suggest that educational background influences both health awareness and reception of marketing messages.

Higher-income individuals exhibit a lower Preventative Focus but place significant emphasis on health attributes, showing a willingness to invest in premium products with perceived health benefits. They rate attributes such as Healthy-Nutritious-Good for Me and Natural Ingredients highly, reflecting a readiness to pay more for health benefits. In contrast, lower-income individuals emphasize preventative health measures and exhibit price sensitivity, indicating that marketing strategies should highlight cost-effectiveness and immediate benefits.

Gender differences reveal distinct consumer preferences and behaviors. Females generally show a higher Preventative Focus, greater emphasis on health attributes, and a more positive mood related to food products. They value convenience and natural ingredients more and are willing to pay a premium for health-oriented products. Males, however, demonstrate a stronger Promotion Focus and are more inclined towards sensory enjoyment and promotional benefits.

The study's findings align with previous research in several ways. The correlation between perceived weight issues and heightened sensitivity to health benefits corroborates earlier studies by Wood & Shukla (2016), which emphasize how self-perceived weight problems influence food-related priorities. The distinctions in Preventative Focus and Promotion Focus resonate with Haron et al. (2015) and Osborn et al. (2016), reinforcing the role of these focuses in consumer decision-making.

The results effectively address the research questions by demonstrating how factors like perceived weight issues, educational background, income levels, and gender impact consumer attitudes towards health-oriented food products. For instance, the study illustrates that consumers with perceived weight problems are more likely to prioritize health attributes, answering the question of how weight concerns affect food choices. Additionally, higher-educated consumers are shown to be more discerning about nutritional value, addressing the influence of educational background on health-related product preferences.

An unexpected finding is the lower Preventative Focus among higher-income individuals despite their willingness to invest in premium health-oriented products. This contrasts with the anticipated pattern of higher Preventative Focus correlating with higher income. Additionally, the pronounced Promotion Focus among males—who were less concerned with preventative health measures—was more significant than anticipated. Gender-based differences in health attribute preferences highlighted a greater focus on convenience and natural ingredients among females, which aligns with expectations but also underscores the need for nuanced marketing strategies.

Theoretical Implications: This study reinforces the theoretical understanding of Promotion Focus and Prevention Focus in consumer decision-making, particularly within the context of health-oriented food products. It validates existing theories on utilitarian versus emotional motivations and provides new insights into how perceived weight issues and educational background influence consumer behavior.

Managerial Implications: The findings highlight the need to tailor marketing strategies to different consumer segments based on perceived weight issues, educational background, income levels, and gender. Consumers with perceived weight problems prioritize health benefits and are willing to invest in products that offer weight management and wellness. Higher-educated individuals require more

sophisticated, evidence-based marketing approaches, while lower-income consumers are more price-sensitive and focused on immediate benefits. Gender differences further necessitate customized marketing strategies to address specific preferences for health attributes and product features. Practically, the study offers actionable insights for businesses to develop targeted marketing strategies. Companies can utilize these insights to refine product offerings and advertising campaigns, enhancing market positioning and consumer satisfaction by addressing the specific needs and preferences of different demographics. Marketing strategies should emphasize health benefits and weight management features, using engaging storytelling and testimonials to enhance credibility. Product packaging and advertising should highlight convenience and sensory appeal to align with the preferences of consumers with perceived weight issues.

For higher-educated individuals, marketing strategies should include sophisticated, informative approaches with detailed nutritional information and research findings. Effective communication of evidence-based claims is essential to engaging this demographic. Marketing efforts for lower-educated individuals should focus on clear, practical messaging highlighting immediate benefits and ease of use. Simple advertisements and promotions that emphasize the practical advantages of health-oriented products will resonate with this group.

For Higher-Income Consumers, position health-oriented products as premium options with superior quality, emphasizing added value and luxury features to justify higher price points. Premium packaging and high-quality ingredients should be highlighted. For lower-income consumers, marketing strategies should emphasize affordability and value for money. Highlighting cost-effectiveness, promotions, and discounts can enhance accessibility and appeal.

For females, emphasize health attributes, convenience, and natural ingredients in marketing campaigns. For males, focus on sensory enjoyment and promotional benefits, addressing their promotion focus and sensory preferences.

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References

- Bärebring, L., Palmqvist, M., Winkvist, A. *et al.* (2020) Gender differences in perceived food healthiness and food avoidance in a Swedish population-based survey: a cross sectional study. *Nutritional Journal* 19, 140. https://doi.org/10.1186/s12937-020-00659-0
- Gaylis, J., Levy, S. S., & Hong, M. Y. (2019). Relationships between body weight perception, body mass index, physical activity, and food choices in Southern California male and female adolescents. *International Journal of Adolescence and Youth, 25*(1), 272-273. https://doi.org/10.1080/02673843.2019.1614465
- Haron, S. A. (2015). Gender differences in regulatory focus and food choices. *Asian Journal of Social Sciences & Humanities*, 4(4), 58-66.
- Hashim, N. H., Kassim, N. M., & Sajali, N. (2018). The Influence Factors Towards Mobile Advertising Message Content on Consumer Purchase Intention. *Global Business Review*, 19(5), 1-20. https://doi.org/10.1177/0972150918788746

- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280-1300. https://doi.org/10.1037/0003-066X.52.12.1280
- Hiller, J., Schatz, K., & Drexler, H. (2017). Gender influence on health and risk behavior in primary prevention: a systematic review. *Journal of Public Health*, *25*, 339–349. https://doi.org/10.1007/s10389-017-0798-z
- Kalog, G. L. S., Kasim, F., Anyebuno, B., Tei, S., Kubuga, C. K., Mogre, V., & Aryee, P. A. (2022).
 Food advertisement influences food decision making and not nutritional status: A study among university students in Ghana. *BMC Nutrition*, 8, Article 72.
 https://doi.org/10.1186/s40795-022-00571-2
- Khoshghadam, L., & Rajabi, R. (2024). The role of emotions in food consumption choice: Systematic review and directions for future studies. *International Journal of Consumer Studies*, 48(1), e13006. https://doi.org/10.1111/ijcs.13006
- Klink, U., Härtling, V., & Schüz, B. (2023). Perspectives on Healthy Eating of Adult Populations in High-Income Countries: A Qualitative Evidence Synthesis. *International Journal of Behavioral Medicine*. Pgs (17-18)https://doi.org/10.1007/s12529-023-10214-w
- Lee, Y., Kim, T., & Jung, H. (2022). The Relationships between Food Literacy, Health Promotion Literacy and Healthy Eating Habits among Young Adults in South Korea. *Foods*, 11(16), 2467. https://doi.org/10.3390/foods11162467

- Lin, C. Y. (2015). Promote health or prevent disease? The effects of health-related advertising on eating behavior intention. *International Journal of Environmental Research and Public Health*, 12(4), 3517-3534. https://doi.org/10.3390/ijerph120403517
- Lin, C. Y., & Yeh, W. J. (2017). How does health-related advertising with a regulatory focus and goal framing affect attitudes toward ads and healthy behavior intentions? *International Journal of Environmental Research and Public Health, 14*(12), 1507. https://doi.org/10.3390/ijerph14121507
- Micu, C. C., & Chowdhury, T. G. (2010). The Effect of Message's Regulatory Focus and Product

 Type on Persuasion. *Journal of Marketing Theory and Practice*, 18(2), 181-190.

 https://www.jstor.org/stable/27821051
- Osborn, J., Naquin, M., Gillan, W., & Bowers, A. (2016). The Impact of Weight Perception on the Health Behaviors of College Students. *American Journal of Health Education*, 47(5), 287–298. http://dx.doi.org/10.1080/19325037.2016.1204966
- Osborn, J., Naquin, M., Gillan, W., & Bowers, A. (2016). The Impact of Weight Perception on the Health Behaviors of College Students. *American Journal of Health Education*, 47(5), 287–298. http://dx.doi.org/10.1080/19325037.2016.1204966
- Sesar, V., Martinčević, I., & Boguszewicz-Kreft, M. (2022). Relationship between Advertising Disclosure, Influencer Credibility and Purchase Intention. *Journal of Risk and Financial Management*, 15(7), 276. https://doi.org/10.3390/jrfm15070276

- Sogari, G., Velez-Argumedo, C., Gómez, M. I., & Mora, C. (2018). College Students and Eating Habits: A Study Using An Ecological Model for Healthy Behavior. *Nutrients*, *10*(12), 1823. https://doi.org/10.3390/nu10121823
- The Chicago School of Professional Psychology. (2020, November 3). Understanding the psychology of advertising. Retrieved from https://www.thechicagoschool.edu
- Vecchi, M., Fan, L., Myruski, S., Yang, W., Keller, K. L., & Nayga, R. M., Jr. (2024). Online food advertisements and the role of emotions in adolescents' food choices. *Canadian Journal of Agricultural Economics*, 72(1), 61-63. https://doi.org/10.1111/cjag.12353
- Verbeke, W. (2008). Impact of communication on consumers' food choices. *Proceedings of the Nutrition Society*, 67(3), 286-287. https://doi.org/10.1017/S0029665108007179
- Vrtana .D. , Krizanova .A. (2023). The power of emotional advertising appeals: Examining their influence on consumer purchasing behavior and brand–customer relationship. Sustainability, 15(8), 13337. 10.3390/su151813337
- Wagner, H. S., Howland, M., & Mann, T. (2014). Effects of Subtle and Explicit Health Messages on Food Choice. *Health Psychology*, 3-4, Advance online publication. http://dx.doi.org/10.1037/hea0000045
- Wei, Y. (Jack), & Sethna, B. N. (2016). Effects of cognitive overweight status on food choice. *Health Marketing Quarterly*, 33(4), 2-11. https://doi.org/10.1080/07359683.2016.1238660

- Wood, M., & Shukla, P. (2016). Weight bias, health consciousness and behavioral actions (activities). *Eating Behaviors*, 23(4), 7. https://doi.org/10.1016/j.eatbeh.2016.10.005
- Young, B., & Hetherington, M. (1996). The effects of food advertising on food-related behaviours and perceptions in adults: The literature on advertising and children's food choice. *Nutrition & Food Science*, 96(5), 15-18. https://doi.org/10.1108/00346659610129189
- Yousef, M., Dietrich, T., & Rundle-Thiele, S. (2021). Social Advertising Effectiveness in Driving Action: A Study of Positive, Negative and Coactive Appeals on Social Media. *International Journal of Environmental Research and Public Health*, 18(11), 5954. https://doi.org/10.3390/ijerph18115954
- Zimmerman, F. J., & Shimoga, S. V. (2014). The effects of food advertising and cognitive load on food choices. *BMC Public Health*, 14, 342 (p. 8). https://doi.org/10.1186/1471-2458-14-342
- Ziso, D., Chun, O. K., & Puglisi, M. J. (2022). Increasing Access to Healthy Foods through Improving Food Environment: A Review of Mixed Methods Intervention Studies with Residents of Low-Income Communities. *Nutrients*, Pg (12)14(11), 2278. https://doi.org/10.3390/nu14112278

Tables with Captions

Table 1: Description of Variables and Constructs

	Cronbach's
Variable	Alpha
1. In general, I am focused on preventing negative events in my life.	
2. I am anxious that I will fall short of my responsibilities and obligations.	

3. I often think about the person I am afraid I might become in the future.	
4. I often worry that I will fail to accomplish my life goals.	
5. I often imagine myself experiencing bad things that I fear might happen to me.	
6. I frequently think about how I can prevent failures in my life.	
7. I am more oriented toward preventing losses than I am toward achieving gains.	
8. My major goal in life right now is to avoid becoming a failure.	
9. I am someone who is primarily striving to fulfill my duties, responsibilities, and	
obligations.	
Prevention Focus Average	0.767
1. I frequently imagine how I will achieve my hopes and aspirations.	
2. I often think about the person I would ideally like to be in the future.	
3. I typically focus on the success I hope to achieve in the future.	
4. I often think about how I will achieve success in my life.	
5. My major goal in life right now is to achieve my ambitions.	
6. I am someone who is primarily striving to fulfill my hopes, wishes, and aspirations.	
7. In general, I am focused on achieving positive outcomes in my life.	
8. I often imagine myself experiencing good things that I hope will happen to me.	
9. Overall, I am more oriented toward achieving success than preventing failure.	
Promotion Focus Average	0.866
Good/Bad	
Desirable/Undesirable	
Worthwhile/Worthless	
Useful/Useless	
Evaluation average	0.902
It is very likely that I will buy this item	
I will purchase it the next time I go to the store	
I will definitely try this item	
I will buy it for other members of my family (kids) even if I may not eat it	
Purchase Intention average	0.915
Compared to others my age, I take less medicine	
Compared to others my age, I think I am in better health	
I really do not have any physical problems	

Helps me cope with stress/life Cheers me up Helps me awake/alert Makes me feel good Mood average O. Can be cooked very simply Can be bought in shops close to where I live or work Is easily available in shops and supermarkets Convenience average O. Looks nice Has a pleasant texture Tastes good Sensory average O. Contains natural ingredients Contains no artificial ingredients Natural Ingredients average Is not expensive Is good value for money	757
Is nutritious Is good for my skin/teeth/nails etc. Health FCM average 0. Helps me cope with stress/life Cheers me up Helps me awake/alert Makes me feel good Mood average 0. Can be cooked very simply Can be bought in shops close to where I live or work Is easily available in shops and supermarkets Convenience average 0. Looks nice Has a pleasant texture Tastes good Sensory average 0. Contains natural ingredients Contains no artificial ingredients Natural Ingredients average Is good value for money	
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Natural Ingredients average Is not expensive Is good value for money	
Is not expensive Is good value for money	
Is good value for money).792
Is good value for money	
).753
Is low in calories	
Helps me control my weight	
).906
Is what I usually eat	
Is familiar	
Familiarity average (0.803

Has the country of origin clearly marked	
Is packaged in an environmentally friendly way	
Packaging average	0.681
The claim in this ad got my attention	
The claim in the ad is convincing	
This claim helped me feel confident about how best to deal with food	
This claim helped me to decide if I am going to buy the item or not	
Ad Effectiveness average	0.862
The message in the ad is very true	
I find myself to agree to the message in the ad about food	
I'd say the same things as the message to my friend if we discuss the food choices	
The message conveys my life philosophy	
Ad Message average	0.878

Table 2: Dependent Variable: Purchase Intention average

			Unstandardized		Standardized		
			Coefficients		Coefficients		
Model		В	Std. Error	Beta	t	Sig.	
1	(Constan	nt)	1.302	.172		7.578	<.001
	Ad	Message	.546	.056	.506	9.750	<.001
	average						

a. Dependent Variable: Purchase Intention average

Table 2a: Dependent Variable: Purchase Intention average – Prevention Focus

			Unstandardized		Standardized		
			Coeff	icients	Coefficients		
				Std.			
P	rev Avg Lo-Hi		В	Error	Beta	t	Sig.
	Prevention	(Constant)	2.742	0.437		6.273	0.000
	Focus lower	Message	0.524	0.075	0.517	6.947	0.000
	than average	average					
	(1-2.99))	Health average	-0.178	0.073	-0.171	-2.423	0.017
		Price average	-0.187	0.090	-0.154	-2.072	0.040
	Prevention	(Constant)	0.565	0.350		1.616	0.109
	Focus higher	Message	0.590	0.087	0.513	6.789	0.000
	than average	average					
	(3-5)	Health average	0.178	0.088	0.153	2.029	0.045

a. Dependent Variable: purchase average

Table 2b: Dependent Variable: Purchase Intention average – Promotion Focus

		Unstandardized Coefficients		Standardized Coefficients		
Prom Avg Lo-Hi		В	Std. Error	Beta	t	Sig.
Promotion Focus	(Constant)	1.115	0.260		4.294	0.000
lower than average	Message average	0.611	0.088	0.520	6.963	0.000
(1-3.89)						
	(Constant)	1.294	0.239		5.409	0.000
Promotion Focus	Message average	0.315	0.114	0.311	2.769	0.006
higher than average (3.90-5)	Ad effectiveness	0.243	0.113	0.241	2.145	0.034
	average					

a. Dependent Variable: purchase average

Table 3: Credibility of Advertising Message

			Unstandardized Coefficients		Standardized		
			Coem	cients	Coefficients		
Model			В	Std. Error	Beta	t	Sig.
3	(Constant)		.916	.284		3.224	.001
	Mood avera	nge	.212	.081	.176	2.621	.009
	Familiarity	average	.221	.063	.211	3.532	<.001
	Natural	Ingredients	.146	.064	.145	2.294	.023
	average						

a. Dependent Variable: Ad Message average

Table 3a: Credibility of Advertising Message – Prevention Focus

			Unstandardized		Standardized		
			Coeffic	ients	Coefficients		
P	reventative Lo-	Hi	В	Std. Error	Beta	t	Sig.
	Prevention	(Constant)	0.712	0.387		1.840	0.068
	Focus lower	Mood average	0.363	0.100	0.294	3.615	0.000
	than average	Convenience	0.256	0.094	0.222	2.740	0.007
	(1-2.99)	average					
	Prevention	(Constant)	1.241	0.376		3.304	0.001
	Focus	Familiarity	0.256	0.091	0.246	2.812	0.006
	higher than	average					
	average	Weight Control	0.219	0.088	0.217	2.481	0.014
	(3-5)	average					

a. Dependent Variable: Ad Message average

Table 3b: Credibility of Advertising Message – Promotion Focus

			Unstand Coeffic		Standardized Coefficients		
				Std.			
Pr	comotion Avg Lo-	-Hi	В	Error	Beta	t	Sig.
	Promotion	(Constant)	0.819	0.362		2.263	0.025
	Focus lower	Familiarity average	0.363	0.085	0.350	4.289	0.000
	than average	Healthy-Nutritious	0.194	0.078	0.203	2.491	0.014
	(1-3.89)	-Good for me average					
	Promotion	(Constant)	1.237	0.386		3.206	0.002
	Focus higher	Mood average	0.293	0.121	0.222	2.416	0.017
	than average	Weight Control average	0.207	0.095	0.200	2.170	0.032
	(3.90-5)						

a. Dependent Variable: Message average

Table 4: Independent Samples Test for Gender Differences

(Male: n = 89; 34%. Female: n = 175; 66%)

		t-test	for Equal	ity of			
			Means				
			Signif	icance			
							Std.
	Equal		One-Si	Two-S		Mea	Deviatio
	Variances:	t	ded p	ided p		n	n
Preventative Focus	assumed	-1.368	0.086	0.173	Male	2.86	0.68
	not assumed	-1.334	0.092	0.184	Female	2.98	0.63
Promotion Focus	assumed	-1.818	0.035	0.070	Male	3.80	0.61
	not assumed	-1.797	0.037	0.074	Female	3.94	0.59
Purchase Intention	assumed	-0.414	0.340	0.679	Male	2.88	0.96
	not assumed	-0.434	0.332	0.665	Female	2.94	1.11
Health average	assumed	-0.959	0.169	0.338	Male	3.37	0.96
	not assumed	-0.947	0.173	0.345	Female	3.48	0.92
Perceived Weight average	assumed	-2.199	0.014	0.029	Male	2.83	0.87
	not assumed	-2.241	0.013	0.026	Female	3.08	0.92
Healthy-Nutritious-Good	assumed	-4.294	0.000	0.000	Male	3.60	0.77
for me average	not assumed	-4.163	0.000	0.000	Female	4.00	0.70
Mood average	assumed	-2.532	0.006	0.012	Male	3.34	0.64
	not assumed	-2.648	0.004	0.009	Female	3.57	0.73
Convenience average	assumed	-2.729	0.003	0.007	Male	3.73	0.77
	not assumed	-2.713	0.004	0.007	Female	4.00	0.76
Sensory average	assumed	-1.120	0.132	0.264	Male	3.87	0.68
	not assumed	-1.110	0.134	0.268	Female	3.97	0.66
Natural Ingredients	assumed	-2.377	0.009	0.018	Male	3.26	0.89
average	not assumed	-2.373	0.009	0.019	Female	3.54	0.88
Price average	assumed	-1.755	0.040	0.080	Male	3.78	0.71
	not assumed	-1.828	0.034	0.069	Female	3.96	0.80
Weight Control average	assumed	-2.517	0.006	0.012	Male	3.27	0.92
	not assumed	-2.474	0.007	0.014	Female	3.56	0.87
Familiarity average	assumed	-0.133	0.447	0.894	Male	3.53	0.75

	not assumed	-0.141	0.444	0.888	Female	3.54	0.90
Packaging average	assumed	-1.513	0.066	0.131	Male	3.06	0.87
	not assumed	-1.555	0.061	0.122	Female	3.24	0.94
Ad Effectiveness average	assumed	-1.939	0.027	0.054	Male	2.74	0.87
	not assumed	-1.947	0.027	0.053	Female	2.96	0.88
Message average	assumed	-0.470	0.319	0.639	Male	2.98	0.79
	not assumed	-0.489	0.313	0.625	Female	3.03	0.89

Table 4a: Independent Samples Test for Gender Differences – Preventive Focus (Average = 2.95 on a 5-point Likert scale. Low Preventive: 1-2.99; High Preventive: 3+)

		Preventat	ive Focus
		Low	High
		(150; 54%)	(128; 46%)
	Equal Variances:	One-Sided p	One-Sided p
Purchase Intention	assumed	0.049	0.131
	not assumed	0.035	0.133
Health average	assumed	0.455	0.040
	not assumed	0.453	0.055
Perceived Weight average	assumed	0.004	0.364
	not assumed	0.003	0.365
Healthy-Nutritious-Good for me average	assumed	0.000	0.017
	not assumed	0.000	0.020
Mood average	assumed	0.087	0.016
	not assumed	0.067	0.020
Convenience average	assumed	0.001	0.287
	not assumed	0.001	0.295
Sensory average	assumed	0.010	0.306
	not assumed	0.007	0.319
Natural Ingredients average	assumed	0.110	0.014
	not assumed	0.103	0.019
Price average	assumed	0.195	0.052

not assumed	0.179	0.051
assumed	0.002	0.338
not assumed	0.002	0.338
assumed	0.176	0.172
not assumed	0.158	0.161
assumed	0.045	0.412
not assumed	0.044	0.404
assumed	0.023	0.265
not assumed	0.020	0.273
assumed	0.160	0.320
not assumed	0.140	0.324
	assumed not assumed not assumed assumed not assumed not assumed assumed not assumed assumed assumed	assumed 0.002 not assumed 0.002 assumed 0.176 not assumed 0.045 not assumed 0.044 assumed 0.023 not assumed 0.020 assumed 0.160

Table 4b: Independent Samples Test for Gender Differences – Promotion Focus (Average: 3.89 on a 5-point Likert scale. Low Promotion: 1-3.89; High Promotion: 3.9+)

		Promotio	on Focus
		Low	High
		(133; 48%)	(145; 52%)
		One-Sided	One-Sided
		р	p
Preventative Focus	Equal variances assumed	0.114	0.304
	Equal variances not assumed	0.105	0.322
Promotion Focus	Equal variances assumed	0.131	0.258
	Equal variances not assumed	0.132	0.250
Purchase Intention	Equal variances assumed	0.498	0.306
	Equal variances not assumed	0.498	0.297
Health average	Equal variances assumed	0.090	0.323
	Equal variances not assumed	0.095	0.314
Perceived Weight average	Equal variances assumed	0.091	0.039
	Equal variances not assumed	0.090	0.037
Healthy-Nutritious-Good	Equal variances assumed	0.002	0.002
for me average	Equal variances not assumed	0.003	0.001

	Mood average	Equal variances assumed	0.025	0.089
		Equal variances not assumed	0.025	0.062
	Convenience average	Equal variances assumed	0.021	0.051
		Equal variances not assumed	0.018	0.064
	Sensory average	Equal variances assumed	0.081	0.452
		Equal variances not assumed	0.089	0.451
	Natural Ingredients average	Equal variances assumed	0.065	0.050
		Equal variances not assumed	0.066	0.051
	Price average	Equal variances assumed	0.025	0.396
		Equal variances not assumed	0.025	0.381
	Weight Control average	Equal variances assumed	0.010	0.105
		Equal variances not assumed	0.013	0.109
	Familiarity average	Equal variances assumed	0.164	0.302
		Equal variances not assumed	0.151	0.293
	Packaging average	Equal variances assumed	0.076	0.208
		Equal variances not assumed	0.077	0.193
	Ad Effectiveness average	Equal variances assumed	0.013	0.336
		Equal variances not assumed	0.011	0.340
	Message average	Equal variances assumed	0.281	0.463
		Equal variances not assumed	0.269	0.463

Table 5: Independent Samples T-Tests of Effect of Income Differences (High: \$65K+; Low: <\$65K)

t-test f	or Equal	ity of		
	Means			
	Signif	icance		
	One-	Two-		
	Sided	Sided		
t	p	p	N	Mean

Preventative	Equal variances assumed	-3.954	0.000	0.000	High	126	2.78
Focus	Equal variances not assumed	-3.952	0.000	0.000	Low	133	3.09
Promotion Focus	Equal variances assumed	-1.306	0.096	0.193	High	126	3.84
	Equal variances not assumed	-1.312	0.095	0.191	Low	133	3.94
Purchase Intention	Equal variances assumed	0.057	0.477	0.954	High	126	2.90
1 01 011000 1110010101	Equal variances not assumed	0.057	0.477	0.955	Low	133	2.90
Health average	Equal variances assumed	-0.812	0.209	0.417	High	126	3.40
	Equal variances not assumed	-0.812	0.209	0.417	Low	133	3.50
Perceived Weight	Equal variances assumed	2.077	0.019	0.039	High	126	3.11
average	Equal variances not assumed	2.087	0.019	0.038	Low	133	2.88
Healthy-Nutritious	Equal variances assumed	1.735	0.042	0.084	High	126	3.95
-Good for me	Equal variances not assumed	1.745	0.041	0.082	Low	133	3.78
average	=q	11, 10	0.0.1	0.002	20,,	100	2., 0
Mood average	Equal variances assumed	-0.636	0.263	0.525	High	126	3.45
	Equal variances not assumed	-0.635	0.263	0.526	Low	133	3.51
Convenience	Equal variances assumed	-0.267	0.395	0.790	High	126	3.89
average	Equal variances not assumed	-0.267	0.395	0.790	Low	133	3.92
Sensory average	Equal variances assumed	1.401	0.081	0.162	High	126	4.00
	Equal variances not assumed	1.411	0.080	0.159	Low	133	3.88
Natural	Equal variances assumed	0.354	0.362	0.724	High	126	3.46
Ingredients avg.	Equal variances not assumed	0.355	0.362	0.723	Low	133	3.42
Price average	Equal variances assumed	-1.178	0.120	0.240	High	126	3.84
	Equal variances not assumed	-1.179	0.120	0.239	Low	133	3.95
Weight Control	Equal variances assumed	1.255	0.105	0.210	High	126	3.53
average	Equal variances not assumed	1.259	0.105	0.209	Low	133	3.39
Familiarity	Equal variances assumed	-1.380	0.084	0.169	High	126	3.45
average	Equal variances not assumed	-1.381	0.084	0.169	Low	133	3.60
Packaging average	Equal variances assumed	0.416	0.339	0.678	High	126	3.19
	Equal variances not assumed	0.417	0.338	0.677	Low	133	3.14
Ad Effectiveness	Equal variances assumed	-0.305	0.380	0.760	High	126	2.85
average	Equal variances not assumed	-0.306	0.380	0.760	Low	133	2.89
Message average	Equal variances assumed	-0.467	0.320	0.641	High	126	2.97

Equal variances not assumed	-0.467	0.320	0.641	Low	133	3.02
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Table 6: Independent Samples T-Tests of Effect of Education (High = College Grad or Graduate School; Low = Less than College Grad)

		t-test f	for Equality	of Means			
			Signi	ficance			
			One-Sid	Two-Side			
		t	ed p	d p		N	Mean
Preventative Focus	Equal variances assumed	-4.566	0.000	0.000	High	153	2.79
	Equal variances not assumed	-4.594	0.000	0.000	Low	110	3.15
Promotion Focus	Equal variances assumed	-1.478	0.070	0.140	High	153	3.86
	Equal variances not assumed	-1.468	0.072	0.143	Low	110	3.97
Purchase Intention	Equal variances assumed	-0.947	0.172	0.344	High	153	2.86
	Equal variances not assumed	-0.970	0.167	0.333	Low	110	2.98
Health average	Equal variances assumed	1.378	0.085	0.169	High	153	3.52
	Equal variances not assumed	1.362	0.087	0.175	Low	110	3.36
Perceived Weight	Equal variances assumed	0.648	0.259	0.518	High	153	3.03
average	Equal variances not assumed	0.632	0.264	0.528	Low	110	2.96
Healthy-Nutritious	Equal variances assumed	2.624	0.005	0.009	High	153	3.97
-Good for me	Equal variances not assumed	2.508	0.006	0.013	Low	110	3.72
Mood average	Equal variances assumed	-0.156	0.438	0.876	High	153	3.49
	Equal variances not assumed	-0.153	0.439	0.878	Low	110	3.50
Convenience	Equal variances assumed	-1.335	0.092	0.183	High	153	3.86
average	Equal variances not assumed	-1.338	0.091	0.182	Low	110	3.98
Sensory average	Equal variances assumed	-0.143	0.443	0.887	High	153	3.93
	Equal variances not assumed	-0.140	0.444	0.888	Low	110	3.95
Natural Ingredients	Equal variances assumed	0.592	0.277	0.554	High	153	3.47
average	Equal variances not assumed	0.595	0.276	0.552	Low	110	3.40
Price average	Equal variances assumed	0.435	0.332	0.664	High	153	3.92
	Equal variances not assumed	0.427	0.335	0.669	Low	110	3.87

Weight Control	Equal variances assumed	1.509	0.066	0.132	High	153	3.54
average	Equal variances not assumed	1.457	0.073	0.147	Low	110	3.37
Familiarity average	Equal variances assumed	-2.413	0.008	0.016	High	153	3.43
	Equal variances not assumed	-2.439	0.008	0.015	Low	110	3.68
Packaging average	Equal variances assumed	-1.233	0.109	0.219	High	153	3.12
	Equal variances not assumed	-1.213	0.113	0.227	Low	110	3.26
Ad Effectiveness	Equal variances assumed	-1.910	0.029	0.057	High	153	2.80
average	Equal variances not assumed	-1.887	0.030	0.060	Low	110	3.01
Message average	Equal variances assumed	-1.124	0.131	0.262	High	153	2.95
	Equal variances not assumed	-1.134	0.129	0.258	Low	110	3.07

Inspired to Teach

by

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Abstract

Inspired to Teach investigates factors influencing individuals' decisions to pursue teaching careers and examines how current educators inspire their students to consider teaching. Employing a quantitative methodology, the researchers administered a 35-item Likert-scale survey to 613 K-12 public school teachers across diverse school districts in New Mexico. This study addresses four primary questions: (1) What inspires individuals to enter the teaching profession? (2) What relationship exists between educators' inspiration and their views of the profession? (3) How do educators inspire their own students toward teaching careers? and (4) What is the connection between teachers being inspired and inspiring others? Findings reveal educators generally perceive teaching as honorable and influential, yet fewer than 38% actively encourage their students to pursue teaching. Positive personal experiences with former teachers and opportunities to engage in instructional roles significantly inspired teachers to enter the profession. Conversely, negative experiences had minimal impact. The study highlights the necessity of actively promoting teaching as a career choice, enhancing public perceptions of educators, and integrating opportunities for students to assume instructional responsibilities as essential recruitment strategies.

Introduction

A variety of experiences inspire people to become teachers. The inspiration to become a teacher can originate long before a potential teacher candidate enters a teacher education program (Coffee et al., 2019). A teacher may have been inspired by their own elementary or secondary teacher to consider a career in the teaching profession. The motivation to teach may also derive from experiences where one plays the role of a teacher in some capacity and thus comes to envisions oneself as an educator with an interest in teaching through an organized curriculum (McKie, 2020). These events and experiences provide the context to encourage an

individual to become a teacher. Investigating what inspires someone to become an educator must be at the forefront of educational research.

While the focus has been on the factors driving the current teacher shortages in the United States (Leib et al., 2019; Aragon, 2016; Ravitch, 2016), investigating what inspires an individual to become a teacher is imperative for understanding how to recruit individuals to the teaching profession and thus ameliorate the teacher shortage. If public school enrollment trends continue, there will be an increase in the projected demand for new teachers (Leib et al., 2019). The necessity to inspire individuals to become teachers is crucial because teachers in the United States often leave the classroom before reaching retirement (Glazer, 2018). Proactively inspiring individuals to become a teacher should be at the forefront of recruiting new teachers and addressing the teacher shortage. The classroom teacher is the first, career professional who children consistently interact with during their formative years in public education. Teachers have the potential to be effective recruiters to the profession through intentional actions and attitudes. Their own inspiration to teach can serve as a foundation for recruitment efforts with their students in their classrooms.

The purpose of this quantitative study was to determine what inspires an individual to become a teacher. Moreover, the investigation sought to identify if educators inspire their own students to become teachers and if the educators themselves were inspired by their own teachers to become a teacher. The relationship between being inspired to teach and inspiring others to teach was investigated.

Finally, the relationship between an educator's view of the teaching profession and the individual's inspiration to have become an educator was examined. Data were collected by administering a 35-question Likert survey instrument to 615 K-12 public school teachers in the field from over two dozen school districts across New Mexico. Insight into why teachers enter the field of education can provide a foundation for future recruitment initiatives.

Literature Review

Before a recruitment initiative can be successfully designed, the reasons for why an individual might not become a teacher need to be considered. According to Podolsky et al(2016), there are five factors that influence an individual's decision to enter the teaching profession. Factors that impact teacher recruitment are "salaries and other compensation," "preparation and cost to entry," "hiring and personnel management," "induction and support for new teachers," and "working conditions" (Podolsky et al., 2016). Teacher salaries are an important factor in recruitment and retention (Allegretto & Mishel, 2018; Vegas et al., 2001).

Furthermore, work conditions dissuade individuals from pursuing a career in teaching (Vegas et al., 2001).

While factors exist to discourage individuals from becoming a teacher, Podolsky et al. (2016) posit that local, state, and federal policies can help address the factors affecting teacher recruitment. Darling-Hammond (2010) posits that recruiting high-quality teachers should be a priority in our nation. Policies initiating strategies with hopes of inspiring individuals to join the teaching profession promote and support recruitment initiatives.

Efforts to recruit individuals to the teaching profession include various strategies. Many of these initiatives are reactive by nature and consider how adults can be encouraged to become teachers (Beesley et al., 2010; Gist et al., 2019; Luft et al., 2011). Efforts include supporting public-school paraprofessionals through career ladder programs and recruiting community members through alternative licensure programs (Gist et al., 2019). Gist et al. (2019) caution that teachers of color often do not successfully matriculate through nontraditional programs.

Alternative programs often require an individual to complete a teacher education program while serving as a teacher of record in the classroom. Sutcher et al. (2016) warn that "individuals who enter teaching before they have had the opportunity to prepare are less effective when they are teaching while still in training, and leave teaching at much higher rates than those who are fully

prepared when they enter" (p. 60). Alternative certification programs offer a way to attract

individuals to the field of education as they pursue a second career. However, the optimal time to recruit and inspire individuals to become a teacher is during their formal education in kindergarten through twelfth grade.

In an effort to understand the teacher shortage in the state of Utah, Christensen et al (2019) examined factors that inspire high school students to consider teaching as a career. Their study included 264 high school students in 41 school districts. They found that students were more likely to consider becoming a teacher when they had high self-efficacy about their ability to teach, when others encouraged them to become a teacher, and when they believed that the community supported teachers. Only one-third of the students felt that teacher work conditions were good, yet the students did not consider work conditions when deciding on a teaching career. Christensen et al (2019) posit that "encouragement is an essential component in teacher recruitment" (p. 11) and advocate for more research on how high school students are inspired to consider a career in teaching.

Inspiring high school students to consider a career in teaching is supported through grow- your-own (GYO) initiatives in public schools. The Teacher Cadet program was established in South Carolina in the late 1970s (Berrigan & Schwartz, 2000). This program provided students with a curriculum that focused on the teaching profession. Furthermore, Educators Rising, formerly called Future Educators of America, supports the national movement to inspire high school students to become teachers by hosting a program where students in 11th and 12th grade take classes and/or join a student organization focused on supporting a career in education (Rhodes, 2017). Thus, Educators Rising is "innovatively re-imagining ways to support the development of sustainable teacher pipelines to effectively prepare aspiring educators" (Rhodes, 2017, p. 5). Students are mentored by their Educators Rising teacher leader and other teachers in

the district and participate in educational field experiences. The purpose of the program is for classroom teachers to mentor students in becoming the next generation of teachers.

Recruitment initiatives are an effective way to attract individuals to the teaching profession. However, many who enter the profession leave within the first three to five years of teaching (Darling-Hammond, 1998). This is especially detrimental in rural areas because the geographic location can cause difficulties in recruitment (Maranto & Shuls, 2012; Monk, 2012). Teachers may leave the profession based on their dissatisfaction with salaries (Amrein-Beardsley, 2012; Connolly, 2000; Guarina et al., 2006), lack of effective mentoring programs (Ingersoll, 2003; Ingersoll & Smith, 2003), lack of administrative support (Curtis, 2012; Russell et al., 2010) and high-stakes testing (Davis, 2015; Ravitch, 2013). Teachers across our nation are faced with serious challenges, yet many continue to find and experience joy and fulfillment in teaching. Podolsky et al (2016) advocate for investigating why teachers leave the profession, what encourages them to stay, and most importantly, a better understanding of why individuals are inspired to become a teacher and enter the profession in the first place.

Methods

The data collected via the 35 question Likert survey instrument via SurveyMonkey was evaluated by looking at central tendencies through mean scores and standard deviations of all survey items. We believe these descriptive statistics directly assess the first two research questions related to teacher inspiration and how educators inspire their students to become teachers.

Utilizing the SPSS analysis tool bivariate correlation analysis was used to explore correlations between variables such as being inspired to teach and inspiring others; the relationship between an educator's view of the teaching profession and inspiration.

Chi-Squared tests were utilized to determine the significance of relationships between demographic factors (experience, level of education, teacher preparation program type, school location type) and Teacher Inspiration as well as an educator's view of the profession.

Findings

As mentioned prior the researchers attempted to answer the following questions:

- 1. What is the relationship between an educator's view of the profession and their inspiration?
- 2. What inspires an individual to become a teacher?
- 3. What is the relationship between being inspired to teach and inspiring others to teach?
- 4. How do educators inspire their students to become a teacher?

613-survey respondents came from a diverse demographic concerning school district size (see Figure 1). The categories are classified as the following: City – Medium to Large: Population over 100,000 (i.e., Albuquerque, Las Cruces). Small City - population less than 100,000 (i.e., Santa Fe). Suburban – territory outside a principal city and inside an urbanized area with a population of less than 100,000 (i.e., Los Lunas and Rio Rancho).

Large town: population above 25,000 outside a metropolitan area (i.e., Carlsbad, Clovis, Farmington, Hobbs). Small town: Population between 2,500 and 25,000 (i.e., Gallup, Ruidoso, Santa Rosa, Taos), and Rural town: Population less than 2,500 (i.e., Dexter, Dora, Fort Sumner).

[See Figure 1 Appendices].

Of 612 respondents 67.32% stated they worked at "Majority (over 50%) Hispanic"

student population, and over 79.87% taught at a school with a low to middle socioeconomic population.

Of the 612 respondents 51.96% taught at the elementary level, and 48.04% teaching at the middle/high school level.

[See Table 1 Appendices].

When the researchers inquired as the professional experience of 610 respondents, 39.35% had ten years or less in the teaching profession, with 16.07% having 11-15 years' experience, and 44.59% having 16 or more years teaching experience.

[See Table 2 Appendices].

In regard to the aforementioned specific research questions the researchers began by stating in the Likert survey, "Teaching is an honorable profession." Of the 611 respondents, 94.93% responded that they agree and or strongly agree with the statement. The response to the statement that teaching warrants the same professional status as other fields such as medicine and law of the 612 respondents, 78.76% agree or strongly agree. Of the 612 that responded to the statement, "I am proud of my occupation as a teacher", 95.91% agree or strongly agree.

[See Table 3 Appendices].

The researchers also wanted to see if teachers considered themselves as role models.

To the statement, "I see myself as a role model to my students for the teaching profession" of the 611 respondents, 97.05% agreed or strongly agreed to the statement.

[See Table 4 Appendices].

The researchers wanted to see how teachers view themselves in preparing students to shape our nation's future. To the statement, "I believe that teachers play a vital role in shaping our nation's future, of the 611 respondents 99.19% agreed or strongly agreed.

[See Figure 2 Appendices].

The researchers also found that teachers in New Mexico are deeply concerned about the public perceptions of the teaching profession. To the statement, "I am concerned with declining public perception of teaching", of the 613 respondents 96.25 % either agreed or strongly agreed with that statement.

[See Table 5 Appendices].

Specific to the topic of inspiration the researchers looked at a number of areas within the survey instrument. To the statement, "an elementary school teacher inspired me to become a teacher", of the 611 respondents 40.26% agreed or strongly agreed. To the

statement, "a secondary school teacher inspired me to become a teacher, of the 609 respondents, 50.57% agreed or strongly agreed.

The researchers also looked into whether there were specific negative experiences as a student or interaction with a teacher that motivated the respondents to become teachers. The researchers found that in both cases that was not the case. To the statement, "I was inspired to become an educator as a result of negative experiences with my teachers, of the 610 respondents 80.29% either disagreed or strongly disagreed. To the statement, "I was inspired to become an educator as a result of a negative school experience(s) as a student" of the 611 respondents, 74.64% disagreed or strongly disagreed with the statement.

The researchers wanted to look into whether or not the respondents were given teaching role opportunities in the schools as students or in the community and how that may have inspired them to teach. To the statement, "I was given an opportunity to view myself in a teaching role such as tutoring, teacher's aide, group leader, etc. of the 611 respondents 57.77% agreed or strongly agreed. To the statement, "I was given the

opportunity outside of school to view myself in a teaching role, such as church, community involvement, employment, etc. of the 611 respondents 64.63% agreed or strongly agreed.

The researchers then wanted to look at whether teachers were inspiring their students in various ways to consider the teaching profession. To the statement, "I actively encourage my students to become a teacher" of the 608 respondents, only 37.83% agreed or strongly agreed, while 62.17% disagreed or strongly disagreed. Yet, when faced with the statement, "I initiate positive conversations about the teaching profession

with my students" 73.97% of the 611 respondents agreed or strongly agreed. To the statement, I provide opportunities for my students to assume a teaching role such as tutoring, student-led instruction, etc." Of the 610 respondents 84.27% agreed or strongly agreed.

[See Figure 3 Appendices].

Lastly, to the statement, "I talk about the teaching profession in a way that will inspire students to consider becoming a teacher" of the 610 respondents 73.97% agreed or strongly agreed.

[See Figure 4 Appendices].

The research discussed in this study focuses on understanding what inspires individuals to become teachers and how teachers themselves encourage their students to consider a career in teaching. The results offer important insight into the beliefs and attitudes of current New Mexico teachers, revealing their perspectives on the teaching profession and their attempts to motivate future educators.

Most of those surveyed stated that teaching is an honorable profession that merits the same respect as medicine and law. This finding demonstrates that educators have a strong sense of pride and conviction in the worth of their work. The fact that educators consider

themselves role models and as having the ability to influence people to choose jobs in education is positive.

The study also showed that New Mexico's teachers are deeply concerned about the public's deteriorating opinion of the teaching profession. This finding emphasizes the necessity of raising public awareness of and respect for educators and their contributions. More people might be motivated to pursue a career in education if misconceptions about teaching are addressed, and a favorable image of the profession is promoted.

Interestingly, the findings show that people's negative interactions with teachers or experiences as students did not particularly drive them to become educators. The results reveal that a person's decision to become a teacher is more likely affected by positive experiences than negative ones. The study also emphasizes the crucial role of providing students with opportunities to assume instructional positions within the classroom and community. These valuable opportunities serve as an impetus, fostering an interest in teaching. The relatively low proportion of teachers who actively urge their students to become teachers is one element that needs more consideration. Less than 38% of those surveyed actively encourage their students to become educators, although most indicate they talk positively about teaching. Teachers' efforts to aggressively promote the profession and encourage their students to consider it a potential career should be improved.

This study provides valuable insights into the factors that inspire individuals to become teachers and how teachers themselves inspire the next generation of educators.

Recruitment efforts and measures to address the teacher shortage can be more informed and focused by recognizing these traits and addressing the worries and views of present

teachers. For individuals to be inspired to pursue a career in education and guarantee the

availability of high-quality teachers in the future, it is essential to promote positive perceptions of the teaching profession, give students opportunities to participate in teaching roles, and foster supportive environments for current and future teachers.

Conclusion

In conclusion, this study has shed light on the factors that inspire individuals to become teachers and the role that educators play in inspiring their students to consider a career in education. The findings indicate that New Mexico teachers hold a positive view of their profession, seeing it as honorable and vital in shaping the future.

They also see themselves as role models and actively engage in conversations about the teaching profession. While the study found that personal experiences with elementary orsecondary teachers can inspire individuals to become teachers, negative experiences as students or with teachers did not significantly impact educators' career choices. Instead, opportunities to assume teaching roles within schools and in the community were more influential in inspiring individuals to pursue a career in education.

A significant discovery is that although teachers understand the value of motivating their students to become teachers, the survey uncovered that only a few educators actively promote teaching as a career option. Nevertheless, they engage in constructive discussions about the teaching profession and offer chances for students to take on teaching responsibilities, such as tutoring or leading student instruction.

These findings have implications for recruitment efforts and addressing the teacher shortage. Education policymakers and stakeholders can develop targeted strategies to attract and retain talented educators by understanding the factors that inspire individuals to become teachers. It is crucial to emphasize the positive aspects of the teaching profession, provide opportunities for students to engage in teaching roles, and actively encourage them to consider teaching as a rewarding career option.

References

- Allegretto, S., & Mishel, L. (2018). The teacher pay penalty has hit a new high:

 Trends in teacher wage and compensation gaps through 2017. Economic

 Policy Institute. https://www.epi.org/publication/teacher-pay-gap-2018/
- Amrein-Beardsley, A. (2012). Recruiting expert teachers into high-needs schools:

 Leadership, money, and colleagues. *Education Policy Analysis Archives*,

 20(27), 1-22. https://doi.org/10.14507/epaa.v20n27.2012
- Aragon, S. (May 2016). *Teacher shortages: What we know.* Education Commission of the States. https://www.ecs.org/wp-content/uploads/Teacher-Shortages-What-We-Know.pdf
- Beesley, A. D., Atwill, K., Blair, P., & Barley, Z. A. (2010). Strategies for recruitment and retention of secondary teachers in central U.S. rural schools. *Rural Educator*; 31(2), 1–9. https://doi.org/10.35608/ruraled.v31i2.937
- Berrigan, A, & Schwartz, S. (2000). *Urban teacher academy project toolkit: A guide to developing high school teaching career academies*. Council of the Great City Schools: Recruiting New Teachers.
- Christensen, S. S., Davies, R. S., Harris, S. P., Hanks, J., & Bowles, B. (2019). Teacher recruitment: Factors that predict high school students' willingness to become teachers. *Education Sciences*, *9*(4), 282. https://doi.org/10.3390/educsci9040282
- Coffee, H., Putman, S. M., Handler, L. K., and Leach, W. (Winter 2019). Grow them

- early: Recruiting and preparing future urban teachers through an early college collaboration between college of education and an urban school district. *Teacher Education Quarterly*, 35-54. https://files.eric.ed.gov/fulltext/EJ1202462.pdf
- Connolly, R. A. (2000). Why do good teachers leave the profession? What can be done to retain them? *Momentum*, *31*(3), 55-57.

 https://www.researchgate.net/publication/234744401 Curtis, C. (2012). Why do they choose to teach and why do they leave? A study of middle school and high school mathematics teachers. *Education*, *132*(4), 779-788.
- Darling-Hammond, L. (1998). Teachers and teaching: Testing policy hypotheses from national commission report. *Educational Researcher*, *27*(1), 5-15. https://doi.org/10.2307/1176922
- Darling-Hammond, L. (2010). Recruiting and retaining teachers: Turning around the race to the bottom in high-need schools. *Journal of Curriculum and Instruction*, *4*(1), 16-32. https://doi.org/10.3776/joci.2010.v4n1p16-32
- Davis, J. M. (2015). Higher education to K-12: Preparing for reality. *National Teacher Education Journal*, 8(3), 103-108.
- Gist, C. D., Bianco, M., & Lynn, M. (2019). Examining Grow Your Own programs across the teacher development continuum: Mining research on teachers of color and nontraditional educator pipelines. *Journal of Teacher Education*, 70(1), 13-15. https://doi.org/10.1177/0022487118787504
- Glazer, J. (2018). Learning from those who no longer teach: Viewing teacher attrition through a resistance lens. *Teaching and Teacher Education*, *74*, 62-71. https://doi.org/10.1016/j.tate.2018.04.011
- Guarino, C. M., Santibanez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational*

Research, 76(2), 173-208. https://doi.org/10.3102/00346543076002173

- Ingersoll, R. (2003). Is there really a teacher shortage? *GSE Publications*, 133. *Research*, 76(2), 173–208. https://respository.upen.edu/gse_pubs/133
- Ingersoll, R., & Smith, T. (2003). The wrong solution to the teacher shortage. *Educational Leadership 60*(8), 30-33. https://www.gse.upenn.edu/pdf/rmi
- Leib, S., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States.

 Education Policy Analysis Archives, 27(35).

 https://dx.doi.org/10.14507/epaa.27.3696
- Levine, A. C. (2013). The sustaining power of hope: Perspectives of public school teachers.

 *Research in the Schools, 20(1), 57–75.
- Luft, J. A., Wong, S. S., & Semken, S. (2011). Rethinking recruitment: The comprehensive and strategic recruitment of secondary science teachers. *Journal of Science Teacher Education*, 22(5), 459-474. https://doi.org/10.1007/s10972-011-9243-2
- Maranto, R., & Shuls, J. V. (2012). How do we get them on the farm? Efforts to improve rural teacher recruitment and retention in Arkansas. *Rural Educator*; 34(1), n1.https://files.eric.ed.gov/fulltext/EJ1000101.pdf
- McKie, M. (2020). Building a teacher pipeline by implementing an Educators Rising chapter.

 *Collegial Exchange, 86(4), 19-21.
- Monk, D. H. (2007). Recruiting and retaining high-quality teachers in rural areas. *The Future of Children*, 17(1), 155-174.

 https://doi.org/10.1353/foc.2007.0009
- Podolsky, A., Kini, T, Bishop, J, & Darling-Hammond. (2016). Solving the teacher

- shortage: How to attract and retain excellent educators. Learning Policy Ravitch, D. (2014). Reign of error. Vintage. Institute. https://doi.org/10.54300/262.960
- Ravitch, D. (2016). Death and live of the great American school system: How Testing and choice are undermining education. Basic Books.
- Rhodes, D. E. (2017). Teacher by design, not accident! Partnering with Educators

 Rising to prepare tomorrow's teachers, today (Publication No. 28223148)

 [Doctoral dissertation, Harvard Graduate School of Education]. ProQuest Dissertations LLC.
- Russell, E. M., Williams, S. W., & Gleason-Gomez, C. (2010). Teachers' perceptions of administrative support and antecedents of turnover. *Journal of Research in Childhood Education*, *24*(3), 195-208.

 https://doi.org/10.1080/02568543.2010.487397
- Sutcher, L., Darling-Hammond, L, & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* Learning Policy

 Institute. https://learningpolicyinstitute.org/product/coming-crisis-teaching
- Vegas, E., Murnane, & Willett, J. B. (2001). From high school to teaching: Many steps, who makes it? *Teachers College Record*, 103(3), 427-449.

 https://doi.org/10.1111/0161-4681.00121



Appendices

(figures/charts

sourced from

SurveyMonkey)

Figure 1

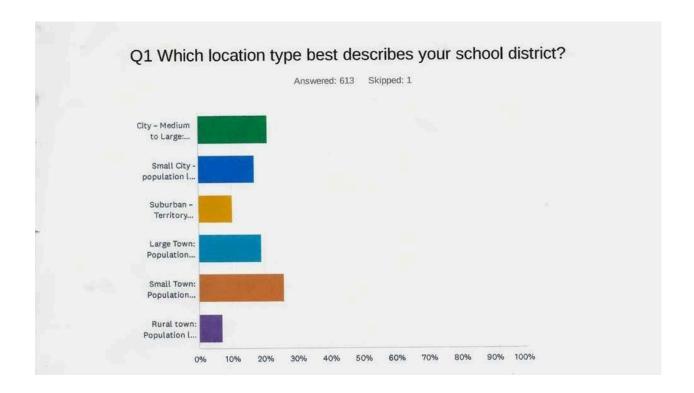


Table 1

ANSWER CHOICES	RESPONSES	
Elementary (Primary): K-3	29.41%	180
Elementary (Intermediate): 4-6	14.05%	86
Middle school/Junior high: 6-8	18.63%	114
High school: 9-12	18.95%	116
Elementary: K-6	8.50%	52
Secondary: 7-12	10.46%	64
TOTAL		612

Table 2

ANSWER CHOICES	RESPONSES	
1 year	6.56%	40
2-3 years	8.36%	51
4-5 years	6.56%	40
6-10 years	17.87%	109
11-15 years	16.07%	98
16 or more years	44.59%	272
TOTAL		610

Table 3

ANSWER CHOICES	RESPONSES	
Strongly agree	68.46%	419
Agree	27.45%	168
Disagree	3.27%	20
Strongly disagree	0.82%	5
TOTAL		612

Table 4

ANSWER CHOICES	RESPONSES	
Strongly agree	60.72%	37:
Agree	36.33%	222
Disagree	2.29%	14
Strongly disagree	0.65%	
TOTAL		611

Figure 2

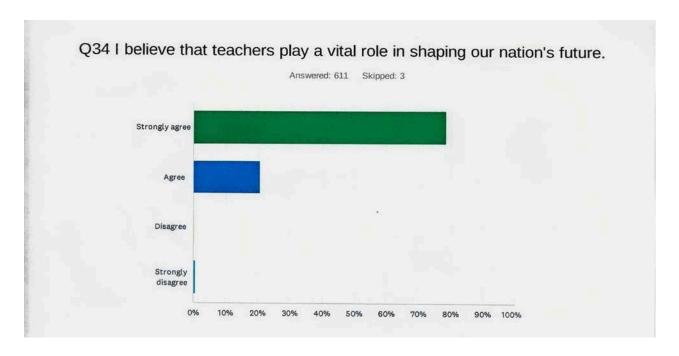


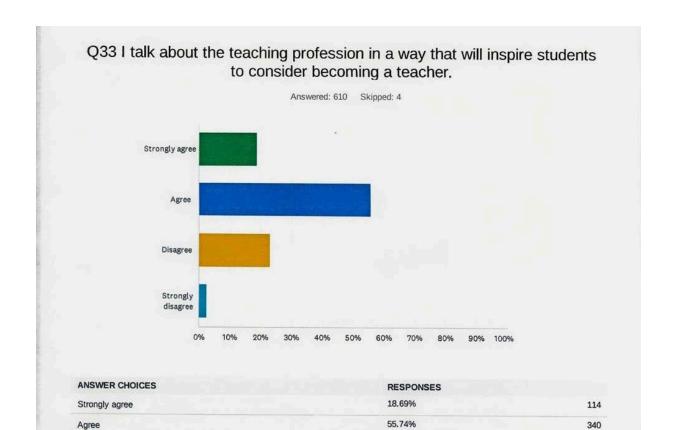
Table 5

ANSWER CHOICES	RESPONSES	
Strongly agree	73.41%	450
Agree	22.84%	140
Disagree	2.28%	14
Strongly disagree	1.47%	9
TOTAL		613
	1.47%	

Figure 3

Q32 I provide opportunities for my students to assume a teaching role, such as tutoring, student-led instruction, etc. Answered: 610 Skipped: 4 Strongly agree Agree Disagree Strongly 50% 20% 40% 60% 70% 80% ANSWER CHOICES RESPONSES 21.48% Strongly agree 131 Agree 62.79% 383 13.11% 80 Strongly disagree 2.62% 16 TOTAL 610

Figure 4



Building a Research Foundation for Creativity and Innovation Lab Experiences in Undergraduate Teacher Preparation Programs By

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Abstract

This paper explores how integrating creativity and innovation into university teacher preparation programs can enhance pre-service teachers' (PST) confidence and adoption of educational technologies. Drawing on interdisciplinary research and grounded in the progressive pedagogy of John Dewey (1934), the literature review highlights the importance of experiential learning to prepare PSTs for 21st-century classrooms. Building a research foundation for the Creativity and Innovation Lab (CIL), a makerspace designed by visual art and technology education faculty to promote interdisciplinary integration and hands-on engagement with educational robots (ER), is one objective of this research. The researchers intend to design future CIL workshops; therefore, a literature review is necessary to support ongoing research and the development of a pedagogical model. Utilizing validated survey instruments, such as the Technology Acceptance Model (TAM), can assist in providing insight into the PSTs' perceived ease of use and usefulness of ERs, examining how these perceptions predict their integration of such tools into future teaching (Davis, 1989; Davis, 1993). Findings from the literature suggest that makerspace environments, when scaffolded effectively, can improve PSTs' confidence in using unfamiliar technologies and support the development of creative pedagogy. The CIL model illustrates how structured innovation labs can provide transformative learning experiences by bridging creativity, technology, and teacher education. This approach empowers PSTs to envision and enact engaging, interdisciplinary instruction that prepares K-12 students for a



rapidly evolving world. Implications for curriculum design, faculty collaboration, and scalable innovation in teacher education are discussed.

Keywords: creativity, pre-service teacher education, educational robots, interdisciplinary learning

Introduction

Essential skills emphasized in 21st-century education include critical thinking, problem-solving, collaboration, communication, creativity, and innovation (Dilekçi & Karatay, 2023). In this context, student learning involves cognitive development and the cultivation of attitudinal traits such as perseverance and adaptability, alongside the acquisition of transferable skills (Bertrand & Namuskasa, 2020). The ability for a learner to transfer knowledge and skills from one discipline or topic of study to another can be emphasized through creative and innovative activities. The scholarship on creativity and innovation has evolved beyond the traditional, romanticized notion of the muse, moving instead toward a broader understanding that creativity and innovation can be cultivated both individually and collectively. Drawing from diverse disciplines such as neuroscience, economics, psychology, design, social justice, and the arts, scholars have expanded the conceptualization of creativity and innovation as learnable and applicable skills (Kaufman & Sternberg, 2010; Starko, 2021). Through thoughtful curriculum design that integrates creativity, innovation, and technology, educators can simulate real-life experiences in the classroom, fostering students' practical and creative abilities. This approach is rooted in the progressive educational philosophy of John Dewey (1934), who advocated that child-centered learning environments mirror real-world contexts and emphasized experiential learning. Dewey (1934) illustrated how learners, when engaged in creative activities, can develop new insights and heightened aesthetic awareness, enabling them to transform their ideas



into innovative solutions. Ultimately, this educational approach enables students to make meaningful connections between classroom learning and their lived experiences, preparing them to navigate and contribute to an increasingly complex and dynamic world.

Integrating creativity and innovation in education not only involves students but educators as well. University teacher preparation programs provide foundational training for future educators or pre-service teachers (PST). In this article, we provide supporting literature review for integrating creativity and innovation in university teacher preparation programs. Connecting technology with creativity and innovation, specifically with the use of educational robots (ER), may allow PSTs to expand their skills and adapt strategies for their future classrooms. How can university teacher preparation programs provide experiences for PSTs to explore creativity and innovation? A university art education professor and a university technology education professor share one approach to answer this question through the development of Creativity and Innovation Lab (CIL) experiences that focus on the visual arts, technology, and real-world issues integrated with related disciplines such as science, reading, and mathematics.

The CIL developed by the researchers offers a makerspace that encourages undergraduate and graduate students to apply design thinking strategies and technology in conjunction with visual art to develop and share new ideas that can enhance instruction and influence the field of education. Its mission is to inspire education students to create, explore, and share their ideas on the connections between creativity and technological innovation. During CIL events, participants engage in activities that could be adapted for their own teaching and address real-world issues concerning society. The CIL creates a space for PSTs to develop teaching strategies that can be



applied in their future classrooms through hands-on engagement, which supports self-efficacy. Experimenting with educational robots through an interdisciplinary lesson allows PSTs to gain confidence in implementing similar engaged activities in their curriculum.

Guiding Questions for the Creativity and Innovation Lab

Since the objective of the CIL is to promote unique and novel concepts that may impact PSTs' future instruction and potentially contribute to the field of education, the researchers focused on how CIL workshops build self-efficacy to teach creativity and impacts on their use of ERs as an instructional tool. The following questions guide the literature review:

- 1. How does a Creativity and Innovation Lab with hands-on, engaged activities build PSTs' self-efficacy to teach creativity?
- 2. What are the benefits and challenges of integrating ERs into PST preparation?
- 3. How can the Technology Acceptance Model (TAM) be used to help explain PSTs' adoption of ERs as an instructional tool for future classroom use?

Literature Review

Narrowing the topics to educational applications assists in developing a foundation in support of integrating creativity and innovation in classrooms. Defining creativity and innovation in general helps in building support for this approach to curriculum.

Creativity and Innovation in Education

Most definitions of creative ideas share three key components: they must be novel, of high quality, and relevant to the task at hand or to redefinition. In other words, a creative response is new and good but also appropriate and meaningful (Sternberg & Lubart, 1991). Education plays a crucial role in shaping children's lives by broadening their awareness. Creative



teachers inspire students to think independently, enhancing their knowledge, interests, strengths, teamwork, and freedom of expression. Creativity empowers students in problem-solving, recognizing weaknesses, adapting results, generating unique ideas, and applying skills like fluency, flexibility, elaboration, and redefining problems. Sternberg and Lubart (1991) suggest that creative individuals possess the ability to transform familiar ideas into brilliant new ones, driven by a sense of purpose and strategy. These individuals think beyond the present moment, examining problems from multiple angles and considering all possible limitations. They are not confined to the past or present; their confidence stems from thorough preparation, allowing them to overcome challenges and weaknesses with resilience and creativity (Kaufman & Sternberg, 2010).

In educational settings, innovation involves action and purposeful doing to create improvements. Innovation involves three essential stages: generating an idea, putting it into action, and achieving a result that brings about meaningful change. In the context of education, innovation can take the form of a new pedagogical theory, teaching method, instructional strategy, educational tool, learning process, or institutional model. When effectively implemented, these innovations lead to significant improvements in teaching and learning, ultimately enhancing student outcomes. The goal of educational innovation is to boost efficiency, effectiveness, and quality of learning experiences (Serdyukov, 2017).

Maker's Spaces in Education

Although the use of makerspaces in education has gained increasing attention, there remains limited research on their impact, particularly in relation to pre-service teachers (PST), who often exhibit low confidence in STEM-related subjects (Halliburton et al., 2024). Halliburton et al. (2024) investigated how various elements of makerspaces influence PST



confidence. As part of a formal assessment in a primary education science course, participating PSTs collaborated in small groups within a university makerspace to design and develop a product. The case study involved four groups and drew upon interviews, observations, and artifact analysis to gather data. Findings indicate that PSTs experienced notable growth in confidence, with several key factors within the makerspace contributing to this development, especially the opportunity to learn sophisticated equipment and the critical support provided by makerspace facilitators (Halliburton et al., 2024).

Makerspaces are inherently flexible environments that promote creativity, open-ended exploration, and hands-on engagement with tools and technologies, while also fostering collaboration and knowledge sharing (Stevenson et al., 2019). Research by Cohen et al. (2017) demonstrated that teachers engaged in makerspace activities developed a deeper understanding of maker pedagogies and experienced increased confidence. Similarly, Stevenson et al. (2019) found that primary teachers who participated in makerspace professional learning reported improved confidence and a greater capacity to implement inquiry-based and student-centered practices in their classrooms.

Makerspaces, therefore, present a valuable context for engaging PSTs in authentic, creative, and innovative learning. However, to realize their full potential, such professional development experiences must incorporate scaffolded support, particularly when PSTs are interacting with unfamiliar tools and technologies (Halliburton et al., 2024).

Cohen (2017) conducted a study to report on the extent to which teacher education programs in the United States have begun to integrate maker principles and technologies. Participants in a survey included deans, associate deans, or department chairs of US colleges and



universities with teacher education programs (n = 811), generated from a membership roster on the American Association of Colleges for Teacher Education (AACTE) public website. Of those invited to complete the survey, 123 responded, and nearly half indicated that maker principles and technologies were incorporated into teacher education programs (Choen, 2017). While research on the maker movement's potential to enhance student outcomes is still emerging, there is growing optimism about its future impact. Research (Cohen, 2017) suggests that, in the coming years, many teacher candidates will have opportunities to explore how maker technologies and principles can be integrated into their teaching practices.

Teaching with Educational Robots

Educational robots (ERs) are increasingly used to foster the development of computational thinking in K-12 classrooms, serving as a valuable tool across various disciplines, including Science, Technology, Engineering, and Mathematics (STEM), as well as sociology, dance, music, and visual art (Sheridan et al., 2013). Zhang et al. (2021) highlight the widespread popularity of ERs, noting that their open-source programming and user-friendly interaction have made them key instruments for cultivating students' innovative practices, analytical skills, and problem-solving abilities. Robotics education has been praised for enhancing learning experiences and has been recognized as a pathway to increasing participation in STEM and related careers (Sheridan et al., 2013).

Integrating ERs into K-12 classroom instruction is increasingly recognized as important and potentially beneficial for students. Pre-service teachers are well-positioned to explore and adopt innovative educational approaches, such as robotics, early in their career development.



While integrating ERs into PST preparation offers several potential advantages, the practice also presents notable challenges (Adler & Beck, 2020).

Benefits of Integrating ERs into PST Education

A primary benefit of incorporating robotics into PST preparation is its potential to foster critical thinking and problem-solving skills. Robotics activities encourage PSTs to engage in critical thinking, reflection, and trial and error, all of which are valuable for effective teaching (Adler & Beck, 2020). The practice of coding with ERS has been shown to enhance computational thinking (CT) skills in pre-service teachers (Jaipal-Jamani & Angeli, 2017). One review of studies indicated that a significant majority of PSTs reported increased knowledge of coding, robotics, or CT (Mason & Rich, 2019). Research also indicates that ERs can enhance students' cognitive and social skills, a finding relevant to PSTs who will guide K-12 students in their future classrooms (Ioannou & Makridou, 2018). Thus, the integration of ERs offers a robust method for building critical thinking, computational skills, and broader cognitive and social competencies essential for effective PST preparation and future classroom success.

Beyond skill development, integrating ERs into PST education can positively impact PSTs' attitudes and pedagogical views. Modifying a science methods course to include robotics led to an increase in PSTs' interest in learning about robotics, their self-efficacy to use robotics when teaching science, and their computational thinking skills. Using a preassessment/post assessment design, the intervention included 21 elementary PSTs who worked in pairs and one group of three to construct and program three LEGO WeDo robots, ultimately building and programming three robot models. A paired sample t-test revealed a statistically significant difference between pre-knowledge and post-knowledge scores. However, PSTs showed significant gains in learning how to write algorithms and debug programs over repeated programming tasks (Jaipal-Jamani &



Angeli, 2017). Collectively, these outcomes suggest that integrating ERs into PST education can help prepare future teachers who are more knowledgeable, confident, and willing to use ERs in their practice.

The potential impact of ERs on PSTs' views and skills has been investigated in studies such as the one conducted by Kaya et al. (2017), who examined the implementation of an engineering unit centered on ERs in a pre-service elementary science methods course. The researchers used tools, including LEGO Mindstorms EV3 robotics kits, as part of the digital engineering unit. The results indicated that the experience positively shaped the views of the eleven PSTs who participated in the Nature of Engineering (NOE) in all four dimensions: demarcation, engineering design process, tentativeness, creativity, and social and cultural. Participants reported enjoying the coding and building process with robots. Overall, the number of PSTs who held uninformed or partially informed NOE views declined on the post-test survey, and the number of PSTs who held informed NOE views increased at the end of the unit. The qualitative findings indicated that all of the PSTs enjoyed coding and building LEGO EV3 robots (Kaya et al., 2017). Ultimately, the study demonstrates the potential of ERs to positively influence PSTs' attitudes towards engineering and their readiness to incorporate such tools in their future teaching.

Another potential benefit of teaching PSTs to integrate ERs into their future classrooms is that these tools can be a platform for teaching artificial intelligence (AI). Literature suggests that ERs are increasingly recognized for their capacity to serve as a platform for introducing AI concepts. Teaching abstract ideas like AI can be challenging, as students often struggle to grasp them without hands-on application and manipulation of physical objects (Karalekas et al., 2023). This is where educational robots offer value, providing a tangible and engaging bridge to



understanding fundamentals of AI. Specific ERs, such as the Dash robot, can effectively facilitate learning about core AI principles. Programming Dash involves developing algorithms and conditional logic based on sensors, inputs, and outputs, directly mirroring key components of AI systems (Hughes et al., 2022). The robot's use of sensors to interact with its environment provides a concrete example of how AI systems perceive and process information. Furthermore, programming Dash to react to its surroundings and make adjustments allows PSTs to explore the concept of feedback loops, which are fundamental to adaptive AI systems. Utilizing Dash in problem-solving challenges helps build foundational programming and algorithmic skills essential for AI development. These hands-on experiences make abstract AI concepts like algorithms, data, and feedback loops more relatable and understandable, fostering critical thinking and problem-solving skills valuable for future STEM and AI careers (Hughes et al., 2022). In essence, robots like Dash serve as building blocks for comprehending how AI systems function.

Researchers (Kaya et al., 2017) have also examined various factors associated with PSTs' adoption of ERs as an instructional tool, often linking this to their perceptions of ERs' utility. For instance, Kaya et al. (2017) found that PSTs who engaged in building and coding robots often expressed intentions to integrate robotics into their future elementary science curriculum. PSTs recognized the usefulness and practicality of robotics for engaging elementary students, noting its ease of use and potential for integration into other core subjects (Kaya et al., 2017). Reflections from the PSTs in the study on including ERs in their future classrooms were consistently positive and encouraging (Kaya et al., 2017). This positive outlook highlights how engagement with ERs can shape PSTs' understanding of their educational value and their willingness to integrate them into future teaching practices.



Challenges of ER Integration

Despite the benefits, integrating ERs into PST preparation is not without its challenges. Many elementary PSTs lack relevant prior experience in engineering and coding, leading to feelings of unpreparedness and low self-efficacy (Kidd et al., 2025). Current pedagogical strategies often rely on complex coding simulations and programming tools, which can overwhelm PSTs new to these concepts, causing stress and hesitation (Wang & Kale, 2025). Additionally, the effectiveness of these interventions can be influenced by contextual factors, such as the level of support from engineering partners and student engagement, which can impact a PST's sense of success and self-efficacy (Kidd et al., 2025). Yet another hurdle relates to the technical aspects of working with robots. Discussions around integrating ERs have highlighted "practical examples" and "technical challenges" as recurring themes (Hrastinski et al., 2019). These technical difficulties can impede PSTs' ability to utilize and teach robotics effectively. Finally, research using robotics to examine PSTs' debugging methods found that locating errors when using robotics was difficult, suggesting a need for more effective debugging strategies (Kim et al., 2018; Kim et al., 2015). All of these challenges emphasize that further work is needed to ensure PSTs can overcome them to facilitate ER integration.

Measures for Future CIL Applications

As the researchers continue to design research methodology for this study various measures of perceived usefulness and pedagogical approaches are essential. Surveys and other observational instruments are necessary to capture the PSTs growth and development while participating in CIL experiences.

Technology Acceptance Model (TAM)



As a focus for the CIL involves the use of technology, specifically ERs, utilizing a validated measure of participant perceived usefulness and application is an important step in developing research support for this approach. The CIL has adopted the Technology Acceptance Model (TAM) as a theoretical lens for examining PSTs' adoption of ERs within pedagogical contexts. Developed to evaluate the market potential for a variety of emerging computer-based applications under contract with IBM in the mid-1980s (Davis & Venkatesh, 1996), the TAM posits that two fundamental and distinct constructions, perceived ease of use (PEOU) and perceived usefulness (PU), influence a person's behavioral intention (BI) to use a technology and that BI influences actual system usage of the given technology (Bogazzi, 2008). Davis (1989) defined PEOU as "the degree to which a person believes that using a particular system would be free of effort" and PU as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p. 320).

Davis (1989) developed and validated measurement scales for PEOU and PU, theorized as fundamental determinants of user acceptance of technology. The development process began by generating 14 candidate items for each construct based on their conceptual definitions, which were then pretested for content validity. The items were measured utilizing a 7-point Likert scale with endpoints labeled "likely" and "unlikely." This initial phase resulted in a refined set of 10 items for each construct. These 10-item scales were empirically tested for reliability and construct validity in a field study involving 112 users of two interactive computer systems. Following this, the scales were further streamlined to six items per construct. A subsequent study involving 40 participants provided further validation for these refined scales. The final six-item scales demonstrated high reliability (0.94 for PEOU and 0.98 for PU) and strong convergent, discriminant, and factorial validity (See Table 1).



Table 1Davis' Final Survey Ouestions for PU and PEOU

Davis Tinai survey Questions for TO and TEOO	
PU	PEOU
Using TECHNOLOGY NAME in my job	Learning to operate TECHNOLOGY NAME
would enable me to accomplish tasks more	would be easy for me.
quickly.	
Using TECHNOLOGY NAME would	I would find it easy to get TECHNOLOGY
improve my job performance.	NAME to do what I want it to do.
Using TECHNOLOGY NAME would	My interaction with TECHNOLOGY NAME
increase my productivity.	would be clear and understandable.
Using TECHNOLOGY NAME would	I would find TECHNOLOGY NAME to be
enhance my effectiveness on the job.	flexible to interact with.
Using TECHNOLOGY NAME would make	It would be easy for me to become skillful at
it easier to do my job.	using TECHNOLOGY NAME
I would find TECHNOLOGY NAME useful	I would find TECHNOLOGY NAME easy to
in my job.	use.

Note: TECHNOLOGY NAME would be replaced with a specific type (i.e., educational robots). Referenced from: Davis, F. (1989).

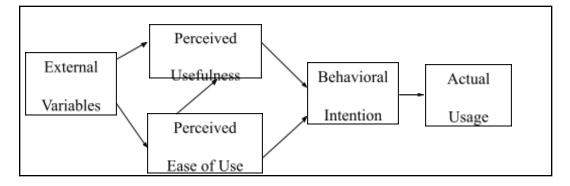
Perceived ease of use and PU shape users' affective responses, including their attitudes toward and intention to use the technology, ultimately leading to actual usage behavior (Davis, 1989; Davis, 1993). The TAM positions behavioral intention as the primary predictor of technology use, determined by the PEOU and PU of the system. Perceived ease of use and PU reflect users' expectations that the technology application or device will result in positive outcomes and require minimal effort (Davis, 1989). Moreover, the researchers (Davis et al., 1989) noted that various external variables may influence technology usage. They explained that external variables provide a bridge between the internal beliefs, attitudes, and intentions represented in the TAM and the various individual differences, situational constraints, and managerially controllable interventions impacting behavior (Davis et al., 1989). Davis et al. (1989) cited user support consultants, training, documentation, and educational programs concerning the merits of a system as examples of external variables that may influence the



technology adoption process. The model has been refined through several TAM studies and was depicted by Davis and Venkatesh (1996) as shown in Figure 1.

Figure 1

Technology Acceptance Model



Note: Referenced from: Davis, F. and Venkatesh, V. (1996), *International Journal of Human – Computer Studies*, 45, p. 20.

The TAM has been utilized as a framework examining technology usage among a wide variety of technologies, users, and settings. In fact, according to Davis and Venkatesh (1996), the TAM is among the most effective models in the information systems literature for predicting user acceptance and usage behavior. In fact, TAM has been found to routinely explain up to 40% of behavioral intention to use and 30% of actual systems usage (Burton-Jones & Hubona, 2006). For these reasons, the TAM was utilized as a theoretical lens to study PSTs' acceptance of ERs as instructional tools in the CIL.

Researchers (Ali et al., 2023) have used TAM to study teachers' acceptance of a variety of classroom technologies, including ERs. For example, Ali et al. (2023) explored teachers' perceptions of a training program on Lego Mindstorms in the UAE. This study specifically investigated how teachers perceived Lego Mindstorms based on the TAM, finding a positive correlation between perceived learning usefulness, perceived teaching usefulness, PEOU, attitudes, and teachers' intention to use Lego Mindstorms in their future teaching. Teachers



showed positive perceptions of robotics integration, emphasizing its potential to enhance teaching and learning. In other research, Casey et al. (2021) aimed to determine whether PSTs would accept floor robots as a useful instructional tool to support learning. During an undergraduate education course, PSTs were introduced to two types of floor robots to enhance their awareness and use of this unfamiliar educational technology. The researchers were interested in gauging PSTs' willingness to accept and/or use new technologies as an additional instructional strategy (Casey et al., 2021). Finally, Schina et al. (2021) investigated pre-service preschool teachers' acceptance and self-efficacy toward ERs during a university course. Their findings indicated that PSTs' acceptance of ER, specifically in PEOU, enjoyment, and attitudes, as well as their self-efficacy, improved after completing the ER teacher training course. Collectively, these studies demonstrate that the TAM is a valuable tool for understanding the factors influencing teachers' and PSTs' willingness to adopt and integrate ERs into their instructional practices (Ali et al., 2023; Burton-Jones & Hubona, 2006; Casey et al., 2021; Davis & Venkatesh, 1996; Schina et al., 2021).

Teaching for Creativity Scales (TCS)

As a focus for the CIL, teaching approaches that support creativity, utilizing a validated measure of participant perceived self-efficacy for creativity, and impacting future K-12 students' creativity are key elements in developing research support for this pedagogy. PSTs' perceived ability to foster creativity development in their future K-12 students affects PSTs' motivation to apply creative and innovative teaching practices. Rubenstein et al. (2013) designed, tested, and validated an instrument, Teaching for Creativity Scales (TCS), which involved 366 teachers who reported their perceived self-efficacy, environmental encouragement, societal value, and student



potential. In relation to this study, the subscale for teacher self-efficacy aligns with the research questions for PSTs. Rubenstein et al. (2013) examined self-perceived teachers' ability to develop creativity in their students. The questions in the subscale of TCS focus on teachers' beliefs about their ability to teach their students to be more creative and the teachers' perceptions of their creativity in general and in their teaching practice. As shown in Table 2, the questions use a Likert scale to focus on flexible thinking, meaningful academic risks, creating unique solutions, imagination, elaboration, finding connections, and new perspectives.

Table 2 *Teaching for Creativity Scales: Teacher Self-Efficacy Survey Items*

- 1. I am capable of helping students to become more flexible in their thinking,
- 2. I am capable of enhancing my students' abilities to take meaningful academic risks.
- 3. I am capable of promoting flexible thinking.
- 4. I am capable of increasing my students' abilities to create unique solutions.
- 5. I am capable of fostering creative problem solving in my classroom.
- 6. I have helped many students to become more creative.
- 7. I am capable of developing a classroom atmosphere that welcomes imagination.
- 8. Teaching creative thinking is one of my strengths.
- 9. I am capable of teaching my students to find connections in seemingly unconnected ideas.
- 10. Teaching creative problem solving is not one of my strengths.
- 11. I am capable of helping students to elaborate on their own unique ideas.
- 12. I am capable of helping my students to see the world from new perspectives.
- 13. I am capable of increasing the quantity of original thoughts my students have.
- 14. In general, how creative do you consider yourself?
- 15. As a teacher, how creative do you consider yourself?

Note: Referenced from: Rubenstein, L. D., McCoach, D. B., & Siegle, D. (2013)

The topics are traits of creativity in general and are often applied to educational settings (Kauf\fman & Sternberg, 2010). Concerning self-efficacy of creativity in teaching practice, Bandura's (1997) theory concerning an individual's beliefs affecting motivation and implementation of actions guided the development of the TCS subscale on self-efficacy. Bandura



(1997) found that one's belief about abilities influences motivation to apply concepts or skills and whether or not action is taken in various settings.

Conclusion

To conclude, this foundational literature drew on interdisciplinary research to emphasize the role of experiential learning in supporting creativity and innovation within university-based teacher preparation programs. The review sought to inform the design of CIL experiences that position PSTs to build confidence, take pedagogical risks, and engage meaningfully with instructional technology, particularly educational robotics, as part of PSTs' future instructional practice. By establishing the theoretical and practical foundations for continued development of CIL workshops, the researchers hope to inform future iterations to intentionally blend the visual arts and student-centered technology integration through hands-on methods.

Future research within the CIL will adapt two validated instruments to examine how maker-space adjacent experiences shape PSTs' beliefs, confidence, and instructional philosophies. While the TAM model (Davis, 1989) will be adapted to assess PSTs' perceived usefulness and ease of use of ERs and provide insight into PSTs' intentions to integrate these tools into authentic classroom contexts, Teaching for Creativity Scales (Rubenstein et al., 2013) will be tailored to measure PSTs' self-efficacy in designing for and supporting creative learning. Each instrument will be revised to reflect the interdisciplinary nature of CIL lessons, emphasizing artistic expression, design-based inquiry, and cross-disciplinary problem solving. Future data collection with these instruments will inform ongoing research, serving as a guide to reframe how teacher education programs prepare candidates for an increasingly complex instructional landscape and by creating space for PSTs to explore, iterate, and reflect in ways that traditional coursework rarely affords.



Further research can examine how PSTs' attitudes, confidence, and instructional choices evolve across different points of engagement within the CIL. In practice, the CIL may provide direction for scalable interventions in teacher preparation as well as professional development for in-service teachers. The CIL also provides opportunities to facilitate faculty collaboration through interdisciplinary integration, thus contributing to a high-impact learning environment for PSTs. Ultimately, the CIL model offers a future-oriented approach to cultivating the creative and technological fluencies essential to teaching and learning in the 21st century.

References

- Adler, R. F., & Beck, K. (2020). Developing an introductory computer science course for pre-service teachers. *Journal of Technology and Teacher Education*, 28(3), 519-541. https://doi.org/10.70725/626531ylmcal
- Ali, N., Santos, I. M., AlHakmani, R., Khurma, O. A., Khine, M. S., & Kassem, U. (2023). Exploring technology acceptance: Teachers' perspectives on robotics in teaching and



- learning in the UAE. *Contemporary Educational Technology*, 15(4), ep469. https://doi.org/10.30935/cedtech/13646
- Bandura, A. (1997). Self-efficacy: The exercise of control. New York, NY: W. H. Freeman.
- Bertrand, M. G. & Namukasa, I. K. (2020). STEAM education: Student learning and transferable skills. *Journal of Research in Innovative Teaching & Learning*, 13(1), 43-56.

https://doi.org/10.1108/JRIT-01-2020-0003

- Bogazzi, R. P. (2008). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 244-254. http://aisel.aisnet.org/jais/vol8/iss4/3
- Burton-Jones, A., & Hubona, G. S. (2006). The mediation of external variables in the technology acceptance model. *Information & Management, 43,* 706-717. https://doi.org/10.1016/j.im.2006.03.007
- Casey, J. E., Pennington, L. K., & Mireles, S. V. (2021). Technology acceptance model:

 Assessing pre-service teachers' acceptance of floor-robots as a useful pedagogical tool. *Technology, Knowledge and Learning*, 26(3), 499-514. https://doi.org/10.1007/s10758-020-09452-8
- Cohen, J. (2017). Maker principles and technologies in teacher education: A national survey. *Journal of Technology and Teacher Education*, *25*(1), 5-30. https://www.learntechlib.org/primary/p/172304/
- Cohen, J. D., Huprich, J., Jones, W. M., & Smith, S. (2017). Educators' perceptions of a maker-based learning experience. *The International Journal of Information and Learning Technology, 34*(5), 428–438. https://doi.org/10.1108/ijilt-06-2017-0050

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008

Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International Journal of Man-Machine Studies*, *38*(3), 475-487. https://doi.org/10.1006/imms.1993.1022

- Davis, F., Bogazzi, R., & Warshaw, P. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003. https://doi.org/10.1287/mnsc.35.8.982
- Davis, F., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: Three experiments. *International Journal of Human Computer Studies*, 45, 19-45. https://doi.org/10.1006/ijhc.1996.0040

Dewey, J. (1934). Art as experience. The Berkley Publishing Group.

Dilekçi, A., & Karatay, H. (2023). The effects of the 21st century skills curriculum on the development of students' creative thinking skills. *Thinking Skills and Creativity*, 47, 101229. https://doi.org/10.1016/j.tsc.2022.101229

Halliburton, P., Georgiou, H., & Nielsen, W. (2024). Makerspaces: Building Confidence in STEM for Primary Pre-service Teachers. *Research in Science Education*, 54, 573–594. https://doi.org/10.1007/s11165-024-10153-w

Hrastinski, S., Olofsson, A.D., Arkenback, C., <u>Ekström</u>, S., Ericsson, E., Fransson, G.,
Jaldemark, J., Ryberg, T., <u>Ericsson</u>, E., <u>Fransson</u>, G., <u>Öberg</u>, L., Fuentes, A.,
Gustafsson, U., Humble, N., Mozelius, P., Sundgren, M., & Utterberg, M. (2019).
Critical Imaginaries and Reflections on Artificial Intelligence and Robots in Postdigital
K-12 Education. *Postdigital Science and Education*, 1, 427–445.

https://doi.org/10.1007/s42438-019-00046-x

- Hughes, C. E., Dieker, L. A., Glavey, E. M., Hines, R. A., Wilkins, I., Ingraham, K., Bukaty, C. A., Ali, K., Shah, S., Murphy, J., & Taylor, M. S. (2022). RAISE: Robotics & AI to improve STEM and social skills for elementary school students. *Frontiers in Virtual Reality*, 3, Article 968312. https://doi.org/10.3389/frvir.2022.968312
- Ioannou, A., & Makridou, E. (2018). Exploring the potentials of educational robotics in the development of computational thinking: A summary of current research and practical proposal for future work. *Education and Information Technologies*, 23(6), 2531–2544. https://doi.org/10.1007/s10639-018-9729-z
- Jaipal-Jamani, K., & Angeli, C. (2017). Effect of Robotics on Elementary Pre-service
 Teachers' Self-Efficacy, Science Learning, and Computational
 Thinking. *Journal of Science Education and Technology*, 26(2), 175–192.
 https://doi.org/10.1007/s10956-016-9663-z
- Karalekas, G., Vologiannidis, S., & Kalomiros, J. (2023). Teaching Machine Learning in K–12 Using Robotics. *Educ. Sci.*, *13*(1), 67. https://doi.org/10.3390/educsci13010067
- Kaufman, J. C., & Sternberg, R. J. (Eds.). (2010). *The Cambridge handbook of creativity*. Cambridge University Press. https://doi.org/10.1017/CBO9780511763205
- Kaya, E., Newley, A., Deniz, H., Yesilyurt, E., & Newley, P. (2017). Introducing engineering design to a science teaching methods course through educational robotics and exploring changes in views of pre-service elementary teachers. *Journal of College Science Teaching*, 47(2), 66-75. https://doi.org/10.2505/4/jcst17_047_02_66
- Kim, C., Yuan, J., Vasconcelos, L., Shin, M., & Hill, R. B. (2018). Debugging

during block-based programming. *Instructional Science*, *46*(5), 767–787. https://doi.org/10.1007/s11251-018-9453-5

- Kim, C., Kim, D., Yuan, J., Hill, R. B., Doshi, P., & Thai, C. N. (2015). Robotics to promote elementary education pre-service teachers' STEM engagement, learning, and teaching. *Computers* & *Education*, 91, 14–31.
 https://doi.org/10.1016/j.compedu.2015.08.005
- Kidd, J., Gutierrez, K., Lee, M. J., Rhemer, D., Pazos, P., Kaipa, K., Ringleb, S., & Ayala, O. (2025). Teaching to whom and with whom: the role of context in developing pre-service teachers' self-efficacy for teaching engineering and coding via robotics. *International Journal of Technology and Design Education*, 1-28. https://doi.org/10.1007/s10798-024-09955-w
- Mason, S. L., & Rich, P. J. (2019). Preparing elementary school teachers to teach computing, coding, and computational thinking. *Contemporary Issues in Technology and Teacher Education*,

 19(4).

https://citejournal.org/volume-19/issue-4-19/general/preparing-elementary-school-teachers-to-teach-computing-coding-and-computational-thinking

Rubenstein, L. D., McCoach, D. B., & Siegle, D. (2013). Teaching for Creativity Scales: An Instrument to Examine Teachers' Perceptions of Factors That Allow for the Teaching of Creativity. *Creativity Research Journal*, *25*(3), 324–334.

https://doi.org/10.1080/10400419.2013.813807

Schina, D., Valls-Bautista, C., Borrull-Riera, A., Usart, M., & Esteve-González, V. (2021). An associational study: Preschool teachers' acceptance and self-efficacy towards Educational

- Robotics in a pre-service teacher training program. *International Journal of Educational Technology in Higher Education*, *18*, 1-20. https://doi.org/10.1186/s41239-021-00264-z
 Serdyukov, P. (2017). "Innovation in education: what works, what doesn't, and what to do about it?", *Journal of Research in Innovative Teaching & Learning*, 10(1), 4-
 - 33. https://doi.org/10.1108/JRIT-10-2016-0007
- Sheridan, K. M., Clark, K., & Williams, A. (2013). Designing games, designing roles: A study of youth agency in an urban informal education program. Urban Education, 48(5), 734–758. https://doi.org/10.1177//00 42085913491220
- Starko, A. J. (2021). Creativity in the Classroom: Schools of Curious Delight (7th ed.).

 Routledge. https://doi.org/10.4324/9781003105640
- Sternberg, R.J. and Lubart, T.I. (1991) An Investment Theory of Creativity and Its Development. Human Development, 34, 1-31. https://doi.org/10.1159/000277029
- Stevenson, M., Bower, M., Falloon, G., Forbes, A., & Hatzigianni, M. (2019). By design:
- Professional learning ecologies to develop primary school teachers' makerspaces pedagogical capabilities. *British Journal of Educational Technology, 50*(3), 1260–1274. https://doi.org/10.1111/bjet.12743
- Wang, Y., & Kale, U. (2025). Unplugged activities to support pre-service teachers' competence, interest, and utility value on computational thinking: A mixed-method inquiry. *Education and Information Technologies*, 1-35. https://doi.org/10.1007/s10639-025-13552-2
- Zhang, Y., Luo, R., Zhu, Y., & Yin, Y. (2021). Educational robots improve K-12 students' computational thinking and STEM attitudes: Systematic review. *Journal of Educational Computing Research*, *59*(7), 1450-1481. https://doi.org/10.1177/0735633121994070

