Can Teacher Agency & Autonomy Ameliorate Teacher Attrition & Shortage in the US? An Evaluation of K-12 Teachers' Perspectives

Cordelia Azumi Yates, Morningside University

Abstract

This study examines the relationship between teacher agency, autonomy, and teacher attrition and shortage challenges in U.S. K-12 education. Utilizing a quantitative approach, a survey was carried out to 200 teachers in Iowa, achieving a 52% response rate. Findings indicate a positive correlation between teacher empowerment and reduced attrition rates. However, respondents largely disagreed that canceling teacher certification examinations would help retain educators, aligning with previous research. Most participants expressed job satisfaction but identified factors such as workload and working conditions as contributors to attrition. The study highlights the need to examine teacher shortages' root causes systematically and recommends expanding research to include diverse geographical areas. It suggests that differing perceptions of empowerment among educators may influence their views on agency and autonomy, indicating a need for more nuanced exploration in future studies.

Keywords: *Teacher Attrition, Teacher Shortage*

Introduction

The educational system in the United States is struggling with a shortage of teachers as well as high rates of teacher attrition (Buchanan et al., 2013); García & Weiss, 2020); Geert, 2017). Teacher attrition refers to the loss of teachers from the profession, either through resignation or retirement (Kelchtermans, 2017). In other words, the problem of teacher attrition and retention refers to the need to prevent good teachers from leaving their jobs for the wrong reasons. This significant issue can lead to teacher shortages and negatively impact students' learning outcomes (Ingersoll & Smith, 2023). Consequently, it is necessary to examine teacher agency and teacher autonomy if these factors are "positively related to teachers' motivation and engagement in teaching" (Lennert da Silva, 2020, p.115) and if they can ameliorate teacher attrition and teacher shortage. Furthermore, in the context of this study, it is vital to understand that "Agency is the "realistic actualization of autonomy within the constraints of the teaching profession, while autonomy is, in theory, more liberating, focusing on self-directedness, capacity for autonomous action, and freedom from control" (Erss, 2018, p. 238).

Recognizing teachers' vital role in creating a literate society, a thriving economy, and a stable socio-political environment is critical. These elements are the foundation of a solid and

prosperous nation (Sorensen & Ladd, 2020). However, the high rate of teachers leaving their jobs has a significant impact on the quality of education that children receive now and in the future (Carver-Thomas & Darling-Hammond, 2019; Ronfeldt et al., 2013, as cited by Nguyen et al., 2019). Therefore, it is crucial to ensure that every child receives an education that prepares them to become future leaders of our country. Considering this, the issue of teacher attrition deserves the attention of citizens, federal and state governments, and education professionals alike.

The U.S. education system recently faced a significant challenge as data continue to show the attrition of teachers from the field of education. This problem is expected in the U.S., as other parts of the world are experiencing similar issues (Mrstik et al., 2019; Ramos & Hughes, 2020). According to research conducted by Carver-Thomas and Darling-Hammond in 2017, about 8% of teachers leave the profession every year, and two-thirds do so for reasons other than retirement. Additionally, another 8% of teachers shift to different schools annually. This high turnover rate significantly contributes to teacher shortages in the United States. The study highlights that teacher shortages will worsen without changes in current policies in the upcoming years.

This implies that the education landscape is constantly evolving, and experts are advocating for more freedom in learning. Meanwhile, adult educationists are calling for more flexibility in organizing teaching for their specific groups of learners. Consequently, teachers must change their roles from simply transmitting information to facilitating learning (Kalaja & Ruohotie-Lyhty, 2021). Considering this, it is crucial to investigate the issue of teacher attrition and shortage in K-12 education from the teachers' perspective. Thus, this research study aims to determine if teacher agencies and autonomy can help alleviate this problem. Examining teacher agency and autonomy as variables can evaluate their relevance in addressing teacher attrition and shortage in the United States. It is essential to recognize the importance of empowering teachers and giving them more control over their work.

Research Rationale and Study Significance

Teacher shortage and attrition are significant issues in United States (US) schools. A recent report by the Learning Policy Institute (LPI; 2021) stated that the United States will have a shortage of around 100,000 teachers by 2025, with some states facing more significant challenges than others. The report reiterates that teacher shortages have become more severe during the pandemic, with schools in rural and high-poverty areas facing the most significant challenges. The LPI report also noted that the pandemic has worsened the teacher shortage crisis, with teachers leaving the profession or retiring early due to stress and burnout caused by the pandemic.

Similarly, a report by the National Center for Education Statistics (NCES) 2022 found 26,000 vacancies for full-time teachers in public schools across the United States during the 2020-2021 school year. California, Texas, Arizona, and Florida had the most significant shortages. Furthermore, a survey conducted by the RAND Corporation in 2021 revealed that more than half of the school districts they surveyed reported a shortage of teachers, with special education, math, science, and English language learning being the most challenging areas to fill. The COVID-19 pandemic has exacerbated this problem, with teachers leaving the profession or retiring early due to stress and burnout. Supporting this report, Balow (2021) stated that data from the National Center for Analysis of Longitudinal Data in Education Research indicated that approximately 500,000 teachers in 2017-2018 had left the profession, attracting the attention of concerned individuals and professionals from various fields. The critical nature of this issue also drew the attention of the President of the United States, Joseph Biden.

In his 2021 State of the Union Address, President Joseph Biden emphasized the importance of using pandemic and recovery funds and the Governor's Emergency Education Relief to attract more individuals to teaching preparation programs and the teaching profession (US Department of Education, 2021). Following the President's announcement, Miguel Cardona, the Secretary of Education, urged all governors, Chief State School Officers, and policymakers to implement concrete plans to address teacher attrition and shortage (U.S. Department of Education, 2021). These responses indicate the urgent nature of teacher shortage and attrition in the nation.

To further buttress this problem, a report by the National Center for Education Statistics (NCES) released on March 3, 2022, states that 44% of public schools are unable to find qualified teachers for full-time and part-time positions, leading to larger class sizes and the hiring of unqualified teachers. The report also highlights that attrition affects special education departments most, with over 50% of schools reporting a shortage in this area. Over half of teachers have quit their jobs, and around one-fifth have retired. It is possible to attribute these statistics to the COVID pandemic of 2019 because the teacher attrition rate for the 2020-2021 school year (7.3%) was almost one percentage point higher than for the 2019-2020 school year (6.4%), but "these rates are well within the range of turnover rates observed during the pre-pandemic years" (Goldhaber & Theobald, 2022, p. 4). Corroborating this trend, the data from the Bureau of Labor Statistics indicated a 9% decline in teacher staffing due to teacher shortage in schools before the onset of COVID-19, debunking the arguments that COVID-19 was a robust causal factor for teacher attrition and shortage (Bleiberg & Kraft, 2022).

Furthermore, according to a recent research study by Nguyen et al. (2022), U.S. schools will have a minimum of 36,500 vacant teaching positions nationwide, with the national vacancy count closer to 52,800 when extrapolating the vacancy rate per student basis to states where data was not available. In addition, Nguyen et al. (2022) estimated that underqualified teachers fill 163,650 positions due to reports of underqualification and Civil Rights data. This means that teaching vacancies amount to 1.67% of positions nationwide, and about 5.16% are held by underqualified teachers. It is worth noting that teacher attrition and shortage are not unique to the United States, as other parts of the globe are also experiencing these issues (Love & Love, 2022).

Love and Love (2022) stated that the United States is a global leader, and its teacher shortage problem continues to attract attention. The media has been urging action to address the shortage of teachers in different states. They have been using various news headlines to highlight this issue, such as "Nevada needs teachers, and it is shelling out $5 million to get them" (Whitaker, 2015, p.3) and "Why Oklahoma is racing to put nearly 1,000 uncertified teachers in its classrooms" (Nix, 2015, as cited in Sutcher et al., 2019, p. 3). This warrants a critical appraisal of these observations and statistics that have indicated that the United States is in crisis regarding its education structure. There have been responses from the government and education industry stakeholders, including reviewing teachers' working conditions and salaries and canceling teacher certification examinations in some states.

For example, in 2017, the United States Legislature enacted 47 bills in 23 states to recruit teachers to areas of severe shortages, but three bills were partially vetoed (Aragon, 2018). The nation, education professionals, and concerned citizens have expressed concerns over the worsening situation. Summing up this situation, Robinson et al. (2019) defined the crisis in the U.S. education system as pervasive and requires further investigation to find out the reasons for the mass exit of teachers from the teaching profession.

Authors like Ingersoll (2001), Darling-Hammond (2003), and Carver-Thomas and Darling-Hammond (2017) have published studies on this subject, emphasizing the challenges faced by

schools and districts across the country. Therefore, researching teacher shortage and attrition is crucial for understanding the root causes and developing effective strategies to address the issue. High teacher turnover rates in U.S. schools lead to lower student achievement (Ingersoll, 2001). Ingersoll also noted that educational underachievement is more common in schools serving low-income and minority students. Darling-Hammond et al. (2017) emphasized that teaching is one of the most critical professions in shaping the future of society. Consequently, researching teacher shortage and attrition is significant for improving student achievement, promoting positive school culture, and addressing broader issues related to workforce development and social inequity (Ingersoll, 2001).

Teacher Agency

Teacher agency in this study's context means teachers can make decisions and take actions that influence their teaching practices and their students' learning experiences (King & Nomikou, 2018; Priestley & Biesta, 2013). The concept of teacher agency involves teachers' sense of empowerment and autonomy that allows them to function as agents of change in their classrooms and schools (Biesta & Tedder, 2007). Teacher agency is an essential concept in education because of its relevance to teachers' leading role in shaping students' educational experiences (Ecclestone & Hayes, 2009). Teacher empowerment involves enabling the teachers to participate in decisions made within the school or at least within their classrooms (Balyer et al., 2017). Teachers can practice judgment to analyze, propose, and implement solutions for daily problems (Balyer et al., 2017). Unfortunately, according to Garcia (2022) and Farmer (2020), teachers have been stressed by different challenges and school policies that do not give them the leverage to use their agencies, contributing to the current issue of attrition and shortage. Reiterating this, the authors argue that government and school policies have failed to address the teachers' challenges or incorporate their perspectives on the changes implemented in education in the United States. This warrants the importance of exploring other avenues, such as investigating teacher agency from the viewpoint of K-12 teachers.

Priestley and Biesta (2013) further argued the relevance of teacher agency. They believed that teachers with a strong sense of agency are more likely to critically analyze their teaching practices, collaborate with colleagues, and engage students in curriculum development. Also, Biesta and Tedder (2007) suggest that teacher agencies can be measured by their ability to adapt teaching practices to cater to individual student needs. Ecclestone and Hayes (2009) highlight that teachers with a strong sense of agency are more likely to respond to diverse student backgrounds by incorporating various teaching strategies and technologies to create interactive and engaging learning experiences.

These views justify the necessity to investigate the option of teacher agency, autonomy, and empowerment from teachers' perspectives, as a previous study indicated that teacher agency is positively associated with job satisfaction, commitment, and retention (Hargreaves et al., 2018). Teachers who feel empowered and autonomous are more likely to be satisfied with their jobs and committed to their profession. This commitment can improve student outcomes, as teachers who feel supported and valued are more likely to be effective in the classroom. Critically appraising teacher agency is essential, especially considering that inherent characteristics such as empowerment and autonomy allow teachers to act as change agents in their classrooms and schools. Investigating teacher agency is worthwhile in determining whether the concept could ameliorate the current teacher shortage and attrition in the United States.

Literature Review

Teacher attrition and shortage have been a persistent problem in the United States for many years, attracting the attention of many researchers who want to examine the reasons for and impact of these problems and potential solutions. For example, Ingersoll and Merrill (2017) discovered that teacher turnover rates have steadily increased in the United States, with almost 50% of new teachers leaving the profession within their first five years. In addition, the author indicated that teacher shortages are more prevalent in specific subject areas, such as special education, math, and science. This problem has worsened and persisted into the 2020s, with other scholars observing that special education in the United States has been most affected by teacher shortage and attrition, with immense negative impacts on students learning and districts' operations (Beymer et al., 2022; Hester et al., 2020).

Furthermore, in evaluating the teacher attrition and shortage situation, the Learning Policy Institute (2016) identified many factors contributing to the situation, such as low salaries, inadequate preparation and support, challenging working conditions, and high-stakes accountability policies. In addition, the study highlighted that teacher shortage disproportionately affects schools in high-poverty areas and schools serving students of color. Becker and Grob (2021) found similar causes of teacher shortage. They expressed that low salaries and harsh work conditions have pressured teachers to leave the profession early in life before they mature. These reasons were further reemphasized by Marshall et al. (2022), who determined that the nation is in a critical state because of this issue based on their investigation with 830 teachers. Their results showed that three-quarters of the teachers planned to leave the profession in the 2022-2023 school year, citing work overload, progressive stress, and a lack of support from parents and school leaders as the reasons for leaving. Rustenburg and Tigchelaar (2021) also provided evidence that paying attention to the differences that exist between new teachers with 1-2 years in the field is expedient, as first-year teachers attract more support than second-year teachers who often lose interest in the profession due to minimal support. Thus, in consideration of this myriad of reasons, it is evident that job satisfaction contributes to the psychological and emotional well-being of teachers, which is reflected in their students' outcomes, and it may be a robust determinant factor in a teacher's retention (Toropova et al., 2021).

Previous research flagged this crisis, but the issue has persisted with limited results and progress, indicating the critical situation of the education system in the United States (Hagaman & Casey, 2018). Furthermore, other reasons provided by teachers for leaving were linked to COVID-19, as teachers expressed that they developed COVID anxiety in teaching and communicating with parents and lacked administrative support (Pressley, 2021; Zamarro et al., 2022). In addition, teachers expressed feeling overburdened by changing from in-class instruction to online or hybrid teaching formats, which, coupled with the fear for their health, was a motivational factor to exit the profession (Peyton et al., 2021).

Thus, scholars have suggested various solutions to address these problems, including increasing teachers' salaries and benefits, improving working conditions and support for teachers, and creating more flexible pathways to teaching for individuals from diverse backgrounds (Darling-Hammond et al., 2017). Maybe introduce the idea that "Various states have tried complex solutions to the concern. However, have these suggestions worked? Why has the situation persisted?

Reactions of Different States in the United States

Teacher shortage and attrition have garnered attention and different reactions to the issues, ranging from states exploring the idea of financial incentives to changes in policies and regulations concerning teachers' certifications. For example, in 2016, the State of Utah initiated an alternative pathway to licensure for individuals with bachelor's degrees. However, it did not finish a traditional teacher preparation program (Utah et al. of Education). Also, in 2017, the State of Texas established legislation that approved bonuses to teachers who work in high-needs schools (Texas Education Agency, 2023). Similarly, the State of North Carolina 2017 created a task force to explore ideas for improving teacher recruitment and retention (North et al.).

Similarly, in 2019, the State of California designated $89.8 million to a program to provide financial incentives for teachers who commit to working in high-need schools for a minimum of 4 years (California Department of Education). Furthermore, the State of Arizona in 2019 passed legislation that allowed individuals with expertise in specific fields to become certified teachers without meeting the expectations of the traditional teacher preparation program (Arizona Department of Education). In addition, Arizona increased funding for teacher recruitment and retention programs, offered loan forgiveness programs for teachers who work in high-need areas, and provided additional incentives for teachers who acquire additional certifications (Arizona Department of Education, 2021). Furthermore, in 2019, the State of New Jersey focused on teachers' working conditions. It passed legislation that mandated school districts to create plans to address teacher shortages and improve teacher working conditions (New et al. Department, 2021).

Recently, New York joined other states with programs to curb the teacher attrition and shortage crisis, especially in rural areas. Its interventions included scholarships and loan forgiveness programs for aspiring teachers who agreed to work in high-need areas. It also provides professional development opportunities for current teachers to help them progress in their careers (New et al. Department, 2021). Oklahoma State, like New York in 2021, increased teacher salaries and provided bonuses for teachers who agreed to work in high-need areas (Oklahoma State Department of Education, 2021). Despite many states implementing all these strategies, the teacher shortage and attrition crisis has persisted in the United States, and the crisis seems to continue for a while. Therefore, it is necessary to explore other avenues, such as teacher agency, autonomy, and empowerment, with the potential to ameliorate this situation.

Table 1: *Examples of Some States that have canceled or Modified Teacher Exam*

States that have canceled or modified teacher certification exams because of teachers.	State initiatives
Iowa State	Cancelled licensure content test requirements completely
New Mexico	No longer require licensure tests except for reading.
Maine	Cancelled licensure. Allow elementary teachers to submit portfolios.
Montana	Allow elementary teacher candidates not to take the certification test if they have a GPA of

	3.0 or above in their teacher preparation coursework.
Wisconsin	They canceled teacher licensure exams and allowed teachers to submit portfolios.
Alabama	Teacher candidates can pass with proof of a 2.75 GPA within one standard error measure of passing score in their subject area. If they do not meet the GPA requirement, they can get a temporary license if they are working towards it and graduated from an in-state college.
Delaware	The state created a temporal one-year act to allow teachers who are within two standard errors of measure of a passing score on content licensure tests to qualify for a standard teaching certificate.
Missouri	The statement created flexibility for those who score below a passing score of one standard error measure on their content licensure exams if they have a GPA of 3.0 in their coursework and student teaching experience.
Colorado	The state legislature directed the state to provide a new option for up to a thousand candidates to substitute either a portfolio or sufficiently high grades instead of taking the state test.
West Virginia	The state waived the elementary content licensure test requirement for teacher candidates who have a degree or are prominent in their content area.
New Jersey	The state created a five-year pilot that will allow districts to apply to the state for approval to hire new teachers with limited licenses and a waiver for either the minimum content test score or GPA requirements.

Impact of Teacher Attrition and Shortage

Acknowledgment the severe consequences of the current crisis of teacher attrition and shortage in the United States is necessary to address this problem. Statistics show that schools lack effective and qualified teachers and suffer higher teacher turnover rates, which have led to students' underachievement (Ingersoll, 2020). Furthermore, current teachers have had to assume more responsibilities because of the shortage of teachers. As they now teach extra classes or supervise extracurricular activities, their workloads have increased, leading to burnout and decreased job satisfaction, which can further exacerbate the problem of teacher attrition (Guin, 2017).

Also, teacher attrition and shortage have immense and disproportionate impacts on low-income and minority students. Most students from these backgrounds attend understaffed schools

or have high teacher turnover rates (Ingersoll & Strong, 2011). The resultant effect of this problem is a need for more access to quality education, which can widen the current achievement gaps and limit opportunities for these students. Besides this impact, the entire education system in the United States is currently impacted as students' achievement decreases due to schools hiring underqualified or inexperienced teachers (Sutcher et al., 2019).

Theoretical Framework: Critical Theory

The researcher, basing her argument on the critical theory perspectives, has stated that too often, many educational authorities, including the state and the federal governments, promulgate educational policies without aligning their decisions with teachers' perspectives. Thus, based on some of the literature reviewed above, teachers feel overburdened by these top-down policies, contributing to the current crisis of teacher shortage and attrition in the nation. This outcome provides a basis for becoming more reflective and exploring alternative ideas for addressing this problem, including investigating teacher agency, autonomy, and empowerment from teachers' perspectives as solutions to the current national shortage and attrition of teachers.

Teacher agency, autonomy, and empowerment are critical components of education analyzed from various perspectives, including critical theory. Critical theory in education emphasizes the role of power dynamics in shaping educational practices and outcomes, and as such, it is particularly relevant for understanding teacher agency, autonomy, and empowerment (Ericson, 1986). Teacher agency refers to the capacity of teachers to act intentionally and purposefully in their work. It involves teachers' ability to make decisions and take actions that align with their professional values and goals (Smyth, 1995). Autonomy refers to the degree of freedom teachers have in making decisions about their work (Van der Walt & Potgieter, 2015). Empowerment involves providing teachers with the necessary resources and support to exercise their agency and autonomy (Smyth, 1995).

Thus, from a critical theory perspective, teacher agency, autonomy, and empowerment are closely related to power and social injustice. Critical theorists argue that educational systems are often structured to reinforce existing power relations and perpetuate social inequalities (Apple, 2004). As such, efforts to promote teacher agencies, autonomy, and empowerment must be grounded in a commitment to social justice and equity.

Perhaps the government and school authorities need to begin to reflect on the policies and regulations that affect teachers' roles and overburden them by exploring their perspectives on their work conditions and the government's top-down policies. This investigation can be done through participatory action research (PAR), which involves teachers collaborating with researchers to identify problems in their practice and develop solutions (Carr & Kemmis, 1986). PAR can assist teachers in developing a deeper understanding of their agency and empower them to take action to address issues in their practice.

Furthermore, school authorities can provide teachers with professional development opportunities emphasizing critical reflection on their practice (Freire, 1970; Gudeta, 2022). This approach can help teachers develop a more nuanced understanding of the power dynamics in education. Through this approach, teachers can also be empowered to take action to challenge inequitable practices such as disengaging teaching practices, negative school culture, personal biases, and behavior management practices (Gudeta, 2022).

Finally, efforts to promote teacher agency must also involve programs that address broader structural issues within education, such as the overemphasis on standardized testing and the lack

of resources for schools in marginalized communities (Giroux, 2011). Without addressing these issues, the impact of the efforts to promote teacher agencies, autonomy, and empowerment is likely to be limited. Thus, the author believes that approaching the issues of teacher agency, autonomy, and empowerment from a theoretical perspective is essential to addressing power and social justice issues. Efforts to promote teacher agencies must be grounded in a commitment to equity and should include approaches such as PAR, critical reflection, and structural change.

Methodology

Participants and Procedures

This study used a quantitative approach based on data from a self-administered questionnaire. The target population included general education and special education teachers with at least two years of teaching experience serving K-12 institutions in the Mid-Western State of Iowa, United States of America. The sample comprised teachers in Iowa's elementary, middle, and high schools.

The researcher distributed the questionnaire in both print and electronic media. The researcher sought the support of five school principals to distribute paper-printed questionnaires to their teachers. Teachers accessed the electronic questionnaire through an online link sent by a university administrator who served as a gatekeeper to school districts in the State.

A minimum of 200 teachers received the questionnaire, of which 104 (52%) responded with valid responses. Sixty-nine (66%) responses were filled out electronically, and 35 (34%) were collected via paper-printed questionnaires. The respondents comprised 85 (82%) female and 19 (18%) male teachers (Table 2). Table 3 shows that respondents with a teaching experience of 0–5 years were 25 (24%), 6–10 years were 23 (22%), and 11–15 years were 18 (17%). Table 4 shows that most respondents had completed a master's degree (n = 81, 78%). Table 5 shows that 33 (32%) respondents taught urban schools, and 23 respondents taught schools with ≤ 10,000 students.

Table 2: *Gender Distribution of Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	85	81.7	81.7	81.7
	Male	19	18.3	18.3	100.0
	Total	104	100.0	100.0	

Table 3: *Years of Experience Distribution of Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 - 5 years	25	24.0	24.0	24.0
	6-10 years	23	22.1	22.1	100.0
	11 - 15 years	18	17.3	17.3	41.3
	16-20 years	8	7.7	7.7	49.0
	21-25 years	8	7.7	7.7	56.7

26 or more years	22	21.2	21.2	77.9
Total	104	100.0	100.0	

Table 4: *Education Completed Distribution of Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Masters Degree	81	77.9	77.9	98.1
	Bachelors Degree	20	19.2	19.2	19.2
	Specialist Degree	2	1.9	1.9	100.0
	Doctorate	1	1.0	1.0	20.2
	Total	104	100.0	100.0	

Table 5: *School Size Enrolled Distribution of Respondents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,001-10,000 students	23	22.1	22.1	22.1
	10,001-20,000 students	15	14.4	14.4	36.5
	30,001-40,000 students	7	6.7	6.7	43.3
	50,001-60,000 students	3	2.9	2.9	46.2
	60,001-70,000 students	1	1.0	1.0	47.1
	less than 1,000 students	20	19.2	19.2	66.3
	Sub-urban	1	1.0	1.0	67.3
	Urban	34	32.7	32.7	100.0
	Total	104	100.0	100.0	

Instruments

The questionnaire consisted of three sections. The first section collected the participants' demographic information, including gender, years of teaching, the highest level of education, and the size of the school district enrolled. The second section focused on the factors influencing teacher attrition and teacher shortage. In contrast, the third section explored the teachers' perspectives on whether teacher empowerment through teacher agency and autonomy variables could ameliorate the situation.

The dependent variable was teacher attrition and teacher shortage, represented by 19 items (Q1–Q19). The independent variable was teacher empowerment (agency and autonomy), represented by seven items (Q20–Q26). For all 26 items, participants were requested to rate their perspectives on a five-point Likert scale questionnaire (1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, and 5 = *strongly agree*).

Analysis Strategies

Data Cleaning

The researcher first merged the responses from the electronic questionnaires with those from the paper-printed questionnaires, compiled them into a single Microsoft Excel document, and

then imported the data into SPSS and AMOS. The next step was checking the data for consistency and missing values. Because there were a few missing data items, the researcher treated them as missing completely at random (MCAR) and applied listwise deletion (Kumar & Upadhaya, 2017).

Research Question

RQ1: Does empowerment of teachers through teacher agency and autonomy ameliorate teacher attrition and teacher shortage?

$H1_0$: Teacher empowerment through teacher agency and autonomy does not significantly influence teacher attrition and teacher shortage.

$H1_A$: Teacher empowerment through teacher agency and autonomy significantly influences teacher attrition and teacher shortage.

Structural Equation Modeling (SEM)

To evaluate the impact of teacher empowerment, specifically through teacher agency and autonomy, on teacher attrition and shortage, the researcher conducted a Structural Equation Modeling (SEM) analysis. SEM is often applied to test hypotheses to examine the relationships between observed and latent variables in a statistical framework (Ajayi & Adebayo, 2021). Observed variables are the measurable aspects of a construct or phenomenon (Ajayi & Adebayo, 2021). In this study, the observed variables were the 26 questions in the questionnaire. Alternatively, latent variables are constructs or factors that are not directly measured but inferred from linking observed variables (Ajayi & Adebayo, 2021). This study contained two latent variables: teacher empowerment as the independent variable and teacher attrition and teacher shortage as the dependent variable.

Before conducting the SEM analysis, the researcher used a Confirmatory Factor Analysis (CFA) to examine the measurement model's reliability, discriminant validity, and convergent validity. First, convergent validity was evaluated to check whether the items (observed variables) consistently described the latent factors (Cheung et al., 2023). Convergent validity for each observed variable was confirmed by checking that the factor loadings are ≥ 0.7 (Kumar & Upadhaya, 2017) and the average variance extracted (AVE) value is> 0.5 (Ajayi & Adebayo, 2021).

Then, the researcher examined composite reliability. Reliability is used to examine the ability of the observed variables to define the latent factor (Kumar & Upadhaya, 2017). In SEM, a composite reliability value ≥ 0.7 confirmed that the observed variables are reliable (Kusmaryono & Wijayanti, 2022).

The next step entailed examining discriminant validity, which measures the level at which the latent constructs differ in structure. It signifies a low correlation between the constructs of one latent variable and the constructs of another latent variable (Ajayi & Adebayo, 2021). The square root of the AVE measure for every construct was higher than the interdimensional correlation (Fornell & Larcker, 1981), confirming discriminant validity.

Finally, SEM was performed to obtain the path coefficients for the direct effect of teacher empowerment on teacher attrition and teacher shortage. The following measures confirmed the SEM model fitness; absolute fit measures including root mean square error of approximation (RMSEA) ≤ 0.08, goodness of fit index (GFI) ≥ 0.90, and adjusted goodness of fit (AGFI) ≥ 0.90, and incremental fit measures including comparative fit index (CFI) ≥ 0.90 and tucker lewis index (TLI) ≥ 0.90 (Kusmaryono & Wijayanti, 2022). The path coefficient signified the strength and direction of the relationship between teacher empowerment, teacher attrition, and teacher shortage.

The p-value was used to determine whether the relationship was statistically significant. A p-value of < 0.05 was considered statistically significant to reject the null hypothesis.

Findings

Preliminary Analysis

The mean on a five-point Likert scale is represented by 1–1.80 = *strongly agree*, 1.81–2.60 = *agree*, 2.61–3.40 = *neutral*, 3.41–4.20 = *disagree*, and 4.21–5.0 = *strongly disagree* based on the arrangement of ratings in this study's questionnaire.

Table 6: *Descriptive Statistics for Teacher Attrition and Teacher Shortage Questions*

Question	Strongly Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5	Total Count	Mean	Std. Deviation
1. I am satisfied with teaching as a career choice.	28	51	19	6	0	104	2.03	0.83
2. Job satisfaction is contributing to the current teacher shortage.	44	41	9	8	2	104	1.88	0.99
3. Job satisfaction contributes to teacher attrition and teachers leaving the profession.	51	40	5	6	2	104	1.73	0.94
4. Workload is contributing to the current teacher shortage.	53	31	15	3	2	104	1.75	0.94
5. Workload is contributing to teacher attrition.	61	28	11	2	2	104	1.62	0.90
6. Disciplinary issues in the classroom contribute to the current teacher shortage.	67	31	4	1	1	104	1.44	0.71
7. Disciplinary issues in the classroom are contributing to teacher attrition.	72	26	4	0	2	104	1.40	0.74
8. Working conditions in schools are contributing to the current teacher shortage.	37	32	27	7	1	104	2.07	0.99
9. Working conditions in schools are contributing to teacher attrition.	35	40	21	7	1	104	2.03	0.95

10. Teacher wages are contributing to the current teacher shortage.	46	35	17	5	1	104	1.85	0.93
11. Teacher salary is contributing to teacher attrition.	40	39	18	6	1	104	1.93	0.94
12. Parental and family support are contributing to the current teacher shortage.	31	38	23	8	4	104	2.19	1.07
13. Parental and family support are contributing to teacher attrition.	32	44	18	7	3	104	2.09	1.01
14. Support from school leaders and administrators contributes to the current teacher shortage.	28	32	32	10	2	104	2.29	1.03
15. Support from school leaders and administrators is contributing to teacher attrition.	32	40	22	8	2	104	2.12	1.00
16. State and federal policies are contributing to the current teacher shortage.	47	30	18	8	1	104	1.90	1.01
17. State and federal policies are contributing to teacher attrition.	55	25	16	8	0	104	1.78	0.97
18. Post-secondary teacher preparation programs are contributing to the current teacher shortage.	2	9	45	33	15	104	3.48	0.91
19. Post-secondary teacher preparation programs are contributing to teacher attrition.	3	6	49	26	20	104	3.52	0.97

Table 6 presents the descriptive statistics for each question relating to teacher attrition and teacher shortage. The results for the means of each construct indicate that, on average, the participants either agreed (mean range, 1.81–2.60) or strongly agreed (mean range, 1–1.80) with all constructs, except for constructs 18 and 19, where on average the participants disagreed (mean range, 3.40–4.20) with the constructs. Most participants indicated satisfaction with their teaching career (n = 79, 76%). They indicated that job satisfaction, workload, disciplinary issues in the classroom, school working conditions, teacher salaries, parental and family support, support from school leaders and administrators, and state and federal laws contribute to teacher shortage and attrition. Alternatively, most participants indicated that the post-secondary teacher preparation program does not contribute to teacher shortage and attrition.

Table 7: *Descriptive Statistics for Teacher Empowerment Questions*

Question	Strongly Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5	Total Count	Mean	Std. Deviation
20. I am an agent of change in my classroom.	51	41	8	3	1	104	1.67	0.82
21. I am an agent of change in the district where I currently teach.	17	29	31	19	8	104	2.73	1.17
22. Teacher agency contributes to the current teacher shortage.	10	33	45	14	2	104	2.66	0.90
23. Autonomy contributes to teacher attrition.	20	37	36	10	1	104	2.38	0.94
24. Improving teacher empowerment and autonomy can reduce the current teacher shortage.	26	52	16	9	1	104	2.11	0.91
25. Improving teacher empowerment and autonomy solves the current teacher shortage and attrition problem.	21	37	24	18	4	104	2.49	1.11
26. Teacher certification examination cancellation will encourage teachers not to leave teaching.	4	20	27	35	18	104	3.41	1.10

Table 7 shows the descriptive statistics for each question relating to teacher empowerment. The results for the means of each construct indicate that out of the seven constructs, on average, the participants either agreed (mean range, 1.81–2.60) or strongly agreed (mean range, 1–1.80) with four of the constructs, the participants were neutral (mean range, 2.61–3.40) regarding two of the constructs, and disagreed (mean range, 3.40–4.20) with one construct. Most participants indicated that they were agents of change in their classrooms (n = 92, 88%), autonomy contributes to teacher attrition (n = 57, 55%), improving teacher empowerment and autonomy can reduce the current teacher shortage (n = 78, 75%), and improving teacher empowerment and autonomy is the solution to the current teacher shortage and attrition problem (n = 58, 56%). On average, participants were neutral regarding whether they are agents of change in the district they teach and whether teacher agency contributes to the current teacher shortage. On average, participants disagreed that canceling the teacher certification examination would encourage teachers not to leave teaching.

Table 8 presents the descriptive statistics for the independent and dependent variables. On a five-point scale, the mean score for the 15 items representing teacher attrition and teacher short-

age was 1.87 (*SD* = 0.51). For the four items representing teacher empowerment (agency and autonomy), the mean score was 2.41 (*SD* = 0.69). The findings reveal that, on average, the respondents disagreed with the items measuring the variable of teacher attrition and teacher shortage and those measuring teacher empowerment (agency and autonomy). Teacher empowerment showed a positive correlation between teacher attrition and teacher shortage. The results of the correlation analysis determined that teacher empowerment and teacher attrition and teacher shortage are positively correlated ($r = .431$, $p < .01$). This indicated that a higher teacher empowerment score also results in a higher teacher attrition and teacher shortage score.

Table 8: *Mean and Correlation*

	Mean	SD	Teacher empowerment
Teacher empowerment	2.41	0.69	
Teacher attrition and teacher shortage	1.87	0.51	.431**

Note. ** $p < 0.01$

Measurement Model

CFA was conducted to assess the measured model's reliability, convergent, and discriminant validity. The results showed that the standardized regression weights ranged from -0.12 to 0.95, demonstrating that convergent validity was lacking (Table 9). Only four items had standardized regression weights ≥ 0.7. Two items of teacher attrition and teacher shortage (Q8 and Q9) had weights of 0.89 and 0.95, and two items of teacher empowerment (Q24 and Q25) had weights of 0.90 and 0.70 (Figure 1).

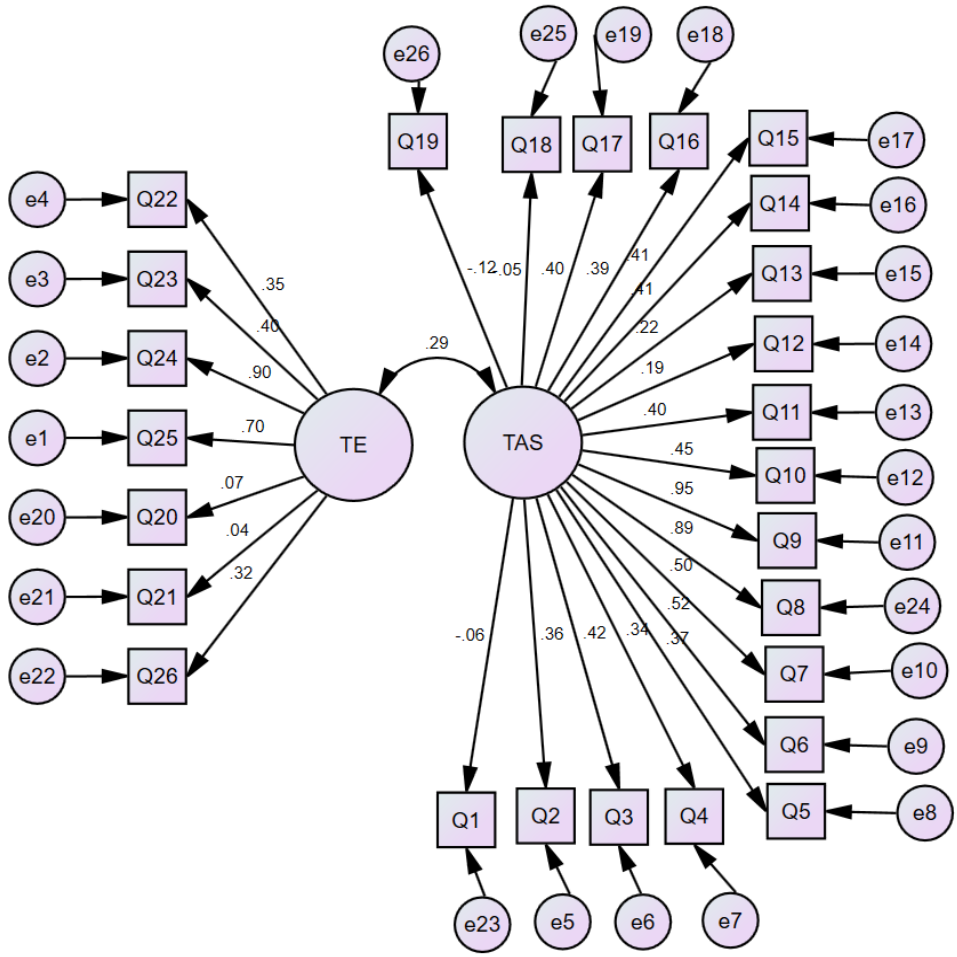
Table 9: *Measurement Model Results*

		Model Parameter Estimation				Convergent Validity		
Variable	Items	Regression Weights	S.E.	C.R.	*P*	Standard Regression Weights	Composite Reliability (CR)	Average Variance Extracted (AVE)
Teacher Attrition and Teacher Shortage (TAS)	Q1	-0.153	0.241	-0.632	0.527	-0.065	0.760	0.210
	Q2	1.000				0.356		
	Q3	1.104	0.383	2.881	0.004	0.415		
	Q4	0.917	0.353	2.598	0.009	0.343		
	Q5	0.938	0.346	2.710	0.007	0.370		
	Q6	1.049	0.329	3.186	0.001	0.523		
	Q7	1.050	0.336	3.126	0.002	0.498		
	Q8	2.503	0.680	3.680	***	0.894		
	Q9	2.568	0.692	3.710	***	0.954		
	Q10	1.199	0.399	3.004	0.003	0.454		
	Q11	1.061	0.376	2.824	0.005	0.399		
	Q12	0.576	0.339	1.698	0.089	0.190		

	Q13	0.636	0.329	1.934	0.053	0.223		
	Q14	1.194	0.418	2.858	0.004	0.409		
	Q15	1.169	0.407	2.873	0.004	0.413		
	Q16	1.107	0.398	2.777	0.005	0.387		
	Q17	1.101	0.390	2.822	0.005	0.399		
	Q18	-0.117	0.264	-0.444	0.657	-0.045		
	Q19	-0.336	0.290	-1.162	0.245	-0.123		
Teacher Empowerment (Agency and Autonomy)	Q20	0.076	0.112	0.672	0.501	0.072	0.590	0.240
	Q21	0.055	0.161	0.341	0.733	0.036		
	Q22	0.406	0.125	3.244	0.001	0.351		
	Q23	0.480	0.131	3.663	***	0.398		
	Q24	1.058	0.195	5.419	***	0.900		
	Q25	1.000				0.697		
	Q26	0.460	0.153	3.004	0.003	0.324		

Note: S.E. = Standard Error; C.R. = Critical Ratio

Figure 1: *Measurement Model CFA*



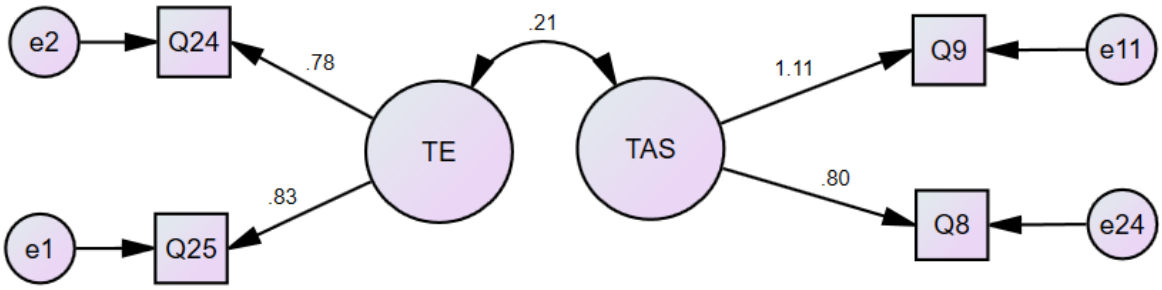
Note: TE = Teacher empowerment; TAS = Teacher attrition and shortage

Teacher attrition and teacher shortage had a composite reliability value of 0.76, which is ≥ 0.70, confirming the scale's internal consistency. The AVE value was 0.21, which is < 0.5, confirming the lack of convergent validity (Cheung et al., 2023). Teacher empowerment had a composite reliability value of 0.59, < 0.70, indicating a lack of internal consistency in the scale. The AVE value was 0.24, which is < 0.5, confirming the lack of convergent validity (Cheung et al., 2023). All items with standardized regression weights < 0.70 were eliminated from further analysis to enhance the measurement model.

Modified Measurement Model

Figure 2 presents the CFA for the modified measurement model.

Figure 2: *CFA for Modified Measurement Model*



Note: TE = Teacher empowerment; TAS = Teacher attrition and shortage

The results indicated that the standardized regression weights ranged from 0.80 to 1.11, demonstrating the convergent validity of the items in the constructs (Table 10). The composite reliability and AVE of the teacher attrition, teacher shortage, and teacher empowerment variables were *CR* ≥ 0.70 and *AVE* ≥ 0.50, confirming both constructs' internal consistency and convergent validity.

Table 10: *Final Measurement Model Results*

		Model Parameter Estimation				Convergent Validity		
Variable	Items	Regression Weights	S.E.	C.R.	*P*	Standard Regression Weights	Composite Reliability (CR)	Average Variance Extracted (AVE)
Teacher Attrition and Teacher Shortage (TAS)	Q8	1				0.798	0.97	0.94
	Q9	1.341	0.439	3.057	0.002	1.113		
	Q24	0.767	0.321	2.39	0.017	0.777	0.78	0.65

Teacher Empowerment (Agency and Autonomy)	Q25	1		0.83

Note: S.E. = Standard Error; C.R. = Critical Ratio

To check discriminant validity, the square root of each construct's AVE was compared to the correlation between the two constructs. Both constructs exhibited discriminant validity (Table 11).

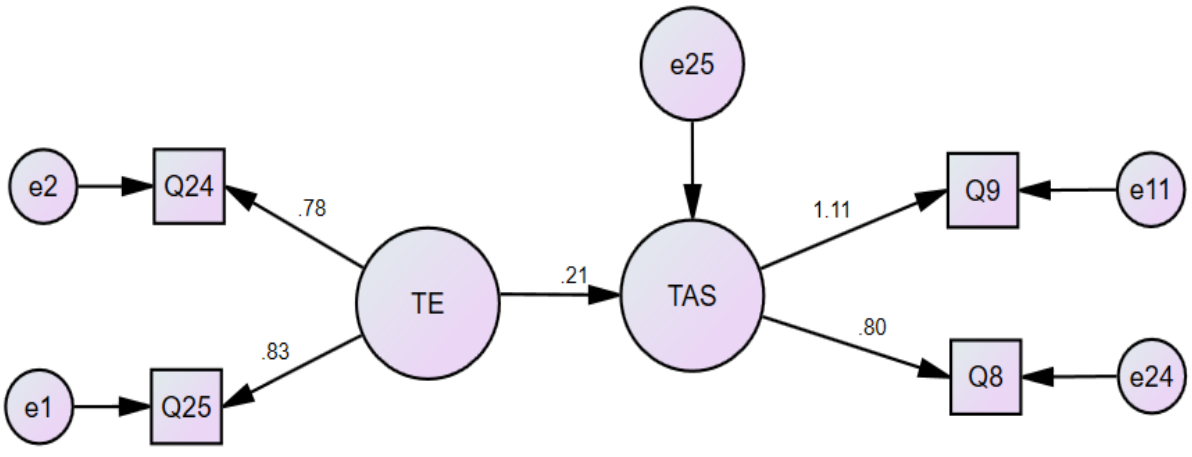
Table 11: *Discriminant Validity of Constructs*

Variable (Construct)	AVE	$\sqrt{AVE}$	Correlation Teacher Empowerment
Teacher Empowerment (Agency and Autonomy)	0.94	0.970	
Teacher Attrition and Teacher Shortage (TAS)	0.65	0.806	0.209

Structural Model

The structural model was used to evaluate the relationship between teacher empowerment variable and teacher attrition and teacher shortage variable. The model fit was assessed using the goodness of fit index (*GFI* = 0.99), the adjusted goodness of fit index (*AGFI* = 0.99), the root mean square residual (*RMR* = 0.01), root mean square error of approximation (*RMSEA* = 0.00), comparative fit index (*CFI* = 1.00) and incremental fit index (*IFI* = 1.00). The results showed that the model is a good fit for the data, that is, GFI, AGFI, CFI, and IFI ≥ 0.90 (Kusmaryono & Wijayanti, 2022); and RMR and RMSEA ≤ 0.06 (Kumar & Upadhaya, 2017). Therefore, the model was adopted to investigate the relationship between the two variables (Figure 3).

Figure 3: *SEM Analysis*



Note: TE = Teacher empowerment; TAS = Teacher attrition and shortage

The SEM analysis indicated that teacher empowerment through agency and autonomy was positive but insignificant on teacher attrition and teacher shortage ($\beta = 0.21$, $p < 0.156$). As a result, the null hypothesis is not rejected, and the conclusion is that teacher empowerment through teacher agency and autonomy does not ameliorate teacher attrition and teacher shortage.

Summary

Using a predetermined questionnaire to collect data, the researcher explored the relationship between teacher empowerment through agency and autonomy and teacher attrition and teacher shortage. The composite reliability of the questionnaire instrument was scrutinized, and its convergent validity and discriminant validity were checked using factor loadings, AVE, square root of AVE, and correlations. A total of 22 items out of the 26 items had low factor loadings and were deleted from the measurement model. The modified measurement model confirmed the items' reliability, convergent, and discriminant validity. Model fit indices confirmed that the SEM model fit the data well. The results indicated that the influence of teacher empowerment through agency and autonomy was positive but not significant on teacher attrition and teacher shortage.

Discussion and Conclusion

On average, participants were neutral regarding whether they are agents of change in the district they teach and whether teacher agency contributes to the current teacher shortage. Also, based on participants' responses to the survey item, on average, participants disagreed that canceling the teacher certification examination would encourage teachers not to leave teaching. Furthermore, most participants indicated that they were satisfied with their teaching career ($n = 79$, 76%) and job satisfaction, workload, disciplinary issues in the classroom, working conditions in schools, teacher salaries, parental and family support, support from school leaders and administrators, and state and federal laws contribute to teacher shortage and attrition. Alternatively, most participants indicated that the post-secondary teacher preparation program does not contribute to teacher shortage and attrition.

The most significant result of this analysis was that most participants in this study disagreed with the idea that cancellation of teacher certification examinations would ameliorate teacher shortage and attrition. The results of the analysis determined that canceling teacher certification does not encourage teachers to stay in teaching. Therefore, the study's results coincide with findings from previous literature (Aragon, 2016). Utah initiated an alternative pathway to licensure for individuals with bachelor's degrees. However, individuals did not finish a traditional preparation program (Utah et al. of Education). Also, the State of Arizona 2019 passed legislation 016). To ameliorate the teacher shortage and attrition, many states in the United States created flexible hiring standards that deviated from the traditional requirements for achieving teacher certification (Aragon, 2016). For example, as noted in the literature, the State of Arizona allows individuals with expertise in specific fields to become certified teachers without meeting the expectations of the traditional teacher preparation program (Arizona Department of Education). The implication of this finding is that state and federal governments need to redirect their sweeping actions for ameliorating teacher shortage and attrition, including the cancellation of teacher certification examinations and the lowering of hiring standards, which has dire consequences, such as hiring unqualified teachers and the lowering of students' achievement (Aragon, 2016). In other words, a more systematic research approach is needed to investigate the root cause of the problem of teacher

shortage and attrition in the United States by researchers, policy leaders, education professionals, and different stakeholders (Behrstock-Sherratt, 2016). This multi-stakeholder approach will lead to more awareness, a strategic plan of action, and lasting effective solutions compared to the unsubstantiated remedies that have yielded minimal results as teacher attrition and shortage continue to be a problem in the United States.

Furthermore, the participants' neutral responses that teacher empowerment through agency and autonomy was positive but insignificant in influencing teacher attrition and teacher shortage need further exploration. This result shows that empowerment and autonomy have different meanings to educational professionals (Lawson, 2004). The difference in conceptual understanding might have primarily contributed to respondents' responses to the questions in that category.

Study Limitations

The researcher must explain how potential contradictions in teacher autonomy and empowerment could impact teacher agency. This lack of clarity may have made it difficult for participants to answer questions in this area. Additionally, some states changed their teacher certification examination, but the information needed to be updated promptly on their websites. This made it difficult to determine when these changes took effect. Finally, the information on teacher cancellation exams was collected from experienced teachers and may not accurately reflect the views of those who have left the field of education.

Recommendations

Future research should investigate the 'contradictory potentials' in autonomy and empowerment in teacher agencies. Furthermore, this study's results indicated that disciplinary issues in the classroom have the most substantial impact on teacher shortage and attrition. This finding suggests a need to investigate parents, families, and teachers' perspectives on the root cause of student misbehavior and disciplinary issues in schools, focusing on the support required to help teachers navigate the challenges of addressing student misbehavior.

The study results suggest that teacher certification exam cancellations do not address teacher shortage and attrition. Consequently, the cancellation would result in hiring unqualified teachers, affecting their students. The research results suggest that local and state governments should develop a more systematic approach to investigate the root cause of the problem of teacher shortage and attrition in the United States. This multi-stakeholder approach will increase awareness, create a strategic action plan, and provide lasting, practical solutions for academic institutions. Programs should also be directed towards the professional development of teachers to empower them to handle inequalities within the schools, specifically within their classrooms.

References

Ajayi, B. L., & Adebayo, A. T. (2021). Structural Equation Model (SEM). *American Journal of Humanities and Social Sciences Research (AJHSSR), 5*(7), 11–19. https://www.ajhssr.com/wp-content/uploads/2021/07/C21571119.pdf

Apple, M. W. (2004). Creating difference: Neoliberalism, neo-conservatism, and the politics of educational reform. *Educational Policy, 18*(1), 12–44. https://doi.org/10.1177/0895904803260022

Aragon, S. (2016). Teacher shortages: What we know. Teacher shortage series. *Education Commission of the States*. www.ecs.org@EdCommission

Aragon, S. (2018). Targeted teacher recruitment: What is the issue, and why does it matter? Policy snapshot. *Education Commission of the States*. http://files.eric.ed.gov/fulltext/ED582978.pdf

Balow, C. (2021). *Teacher attrition: A critical problem for America's schools.* https://blog.schoolmint.com/teacher-attrition-a-critical-problem-for-americas-schools

Balyer, A., Ozcan, K. & Yildiz, A. (2017). Teacher empowerment: School administrators' roles. *Eurasian Journal of Educational Research. 17*. 1-18. 10.14689/ejer.2017.70.1.

Becker, J., & Grob, L. (2021). *The school principal and teacher retention.* Metropolitan Educational Research Consortium.

Behrstock-Sherratt, E. (2016). *Creating coherence in the teacher shortage debate: What policy leaders should know and do.* Education Policy Center at American Institutes for Research.

Beymer, P. N., Ponnock, A. R., & Rosenzweig, E. Q. (2022). Teachers' perceptions of cost: Associations among job satisfaction, attrition intentions, and challenges. *The Journal of Experimental Education, 91*(3), 1–22. http://dx.doi.org/10.1080/00220973.2022.2039997

Biesta, G., & Tedder, M. (2007). Agency and Learning in the Life Course: Towards an Ecological Perspective. *Studies in the Education of Adults, 39*(2), 132–149. http://doi.org/10.1080/02660830.2007.11661545

Bleiberg, J., & Kraft, M. A. (2022). What happened to the K-12 education labor market during COVID? The acute need for better data systems. (EdWorkingPaper: 22-544). *Annenberg Institute at Brown University*. https://doi.org/10.26300/2xw0-v642

Buchanan, J., Prescott, A., Schuck, S., Aubusson, P., Burke, P., & Louviere, J. (2013). Teacher Retention and attrition: Views of early career teachers. *Australian Journal of Teacher Education, 38*(3), Article 8. http://ro.ecu.edu.au/ajte/vol38/iss3/8

Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, Knowledge, and action research.* Falmer Press.

Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2023). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management*. https://doi.org/10.1007/s10490-023-09871-y

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Sage.

Darling-Hammond, L., Whisnant, E., & Pecherone, R. (2017). Teacher preparation for quality Teaching: International perspectives on promising practices. *European Journal of Teacher Education*.

Ecclestone, K., & Hayes, D. (2009). *The dangerous rise of therapeutic education.* Routledge.

Ericson, D. (1986). On critical theory and educational practice. 10.1007/978-94-009-4229-5_5.

Erss, M. (2018). 'Complete freedom to choose within teachers' views of curricular Autonomy agency, and control in Estonia, Finland, and Germany. *The Curriculum Journal, 29*(2), 238–256.

Farmer, D. (2020). Teacher attrition: The impact of stress. *Delta Kappa Gamma Bulletin, 87*(1), 41-50

Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50. https://doi.org/10.2307/3151312

Freire, P. (1970). *Pedagogy of the oppressed.* Seabury Press.

García, E., Han, E., & Weiss, E. (2022). Determinants of teacher attrition: Evidence from district-teacher matched data. *Education Policy Analysis Archives, 30*(25), n25.

García, E., & Weiss, E. (2020). A policy agenda to address the teacher shortage in US public Schools: The sixth and final report in the 'Perfect Storm in the Teacher Labor Market' series. *Economic Policy Institute*. https://www.epi.org/publication/a-policy-agenda-to-address-the-teacher-shortage-in-u-s-public-schools/

Geert, K. (2017). 'Should I stay or should I go?': Unpacking teacher Attrition/retention as an educational issue. *Teachers and Teaching, 23*(8), 961–977. https://doi.org/10.1080/13540602.2017.1379793

Giroux, H. A. (2011). *On critical pedagogy*. Bloomsbury Publishing USA.

Goldhaber, D., & Theobald, R. (2022). Teacher attrition and mobility over time. *Educational Researcher, 51*(3), 235–237. https://doi.org/10.3102/0013189X211060840Gudeta, D. (2022). Professional development through reflective practice: The case of Addis Ababa secondary school EFL in-service teachers. *Cogent Education, 9*(1). https://doi.org/10/1080/2331186X.2022.2030076

Hagaman, J. L., & Casey, K. J. (2018). Teacher attrition in special education: Perspectives from The field. *Teacher Education and Special Education, 41*(4), 277–291. https://doi.org/10.1177/0888406417725797

Hargreaves, E., Elhawary, D., & Mahgoub, M. (2018). 'The teacher who helps Children learn best': Affect and authority in the traditional primary classroom. *Pedagogy, Culture and Society, 26*(1), 1–17. https://doi.org/10.1080/14681366.2017.1314318

Hester, O. R., Bridges, S. A., & Rollins, L. H. (2020). 'Overworked and underappreciated': Special education teachers describe stress and attrition. *Teacher Development*, *24*(3), 348–365. https://doi.org/10.1080/13664530.2020.1767189

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*(3), 499–534. https://doi.org/10.3102/00028312038003499

Ingersoll, R. M. (2020). Misdiagnosing the teacher quality problem. In H. M. Gunter (Ed.), *The State of education policy research* (pp. 291–306). Routledge.

Ingersoll, R. M., & Merrill, E. (2017). *Seven trends: The transformation of the teaching force*. CPRE Research Reports.

Ingersoll, R., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers. *Review of Educational Research, pp. 81,* 201–233.https://doi.org/10.3102/0034654311403323

Ingersoll, R.M., and Thomas M. Smith. "The wrong solution to the teacher shortage." Educational leadership 60 (8), p. 30-33.

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, *38*(3), 499–534.

Kalaja, P., & Ruohotie-Lyhty, M., (2021). Autonomy and agency. The Routledge Handbook of the Psychology of Language Learning and Teaching, 245-259.

Kelchtermans, G. (2017). 'Should I stay or should I go?: Unpacking teacher attrition/retention as an educational issue. *Teachers and Teaching*, 23(8), 961–977.

King, H., & Nomikou, E. (2018). Fostering critical teacher agency: The impact of a science capital pedagogical approach. *Pedagogy, Culture & Society, 26*(1), 87–103. https://doi.org/10.1080/14681366.2017.1353539

Kumar, S., & Upadhaya, G. (2017). Structure equation modeling basic assumptions and concepts: A novice's guide. *International Journal of Quantitative and Qualitative Research Methods, 5*(4), 10–16. https://www.eajournals.org/wp-content/uploads/Structure-Equation-Modeling-Basic-Assumptions-and-Concepts-A-Novices-Guide.pdf

Kusmaryono, I., & Wijayanti, D. (2022). The number of response options, reliability, validity, and potential bias in using the Likert scale education and social science research: A literature review. *International Journal of Educational Methodology, 8,* 625–637.https://doi.org/10.12973/ijem.8.4.625

Lawson, T. (2004). Teacher autonomy: Power or control? *Education 3-13, 32*(3), 3–18. http://dx.doi.org/10.1080/03004270485200261

Learning Policy Institute. (2016). *Addressing California's growing teacher shortage: 2016 Update.* Author.

Lennert da Silva, A.L., & Molstad, C.E. (2020). Teacher autonomy and teacher agency: A comparative study in Brazilian and Norwegian lower secondary education. *The Curriculum Journal* 31(1), p. 115-131.

Love, T. S., & Love, Z. J. (2022). The teacher recruitment crisis: Examining influential Recruitment factors from a United States technology and engineering teacher preparation program. *International Journal of Technology and Design Education*, 1–17. http://dx.doi.org/10.1007/s10798-022-09727-4

Marshall, D. T., Pressley, T., Neugebauer, N. M., & Shannon, D. M. (2022). Why teachers are Leaving and what we can do about it. *Phi Delta Kappan, 104*(1), 6–11. https://doi.org/10.1177/ 00317217221123642

Mrstik, S., Pearl, C., Hopkins, R., Vasquez, E., III., & Marino, M. T. (2019). Combating Special educator attrition: Mentor teachers' perceptions of job satisfaction, resiliency, and retention. *Australasian Journal of Special and Inclusive Education*, *43*(1), 27–40. http://dx.doi.org/10.1017/ jsi.2018.20

National Center for Education Statistics. (2022, March 3). *U.S. schools report increased teacher vacancies due to the COVID-19 pandemic, new NCES data show*. https://nces.ed.gov/whatsnew/press_releases/3_3_2022.asp

New York State Education Department. (2021). *Congress expands loan forgiveness programs to Teachers in BOCES.* http://www.nysed.gov/

Nguyen, T. D., Lam, C. B., & Bruno, P. (2022). Is there a national teacher shortage? A systematic Examination of reports of teacher shortages in the United States. *Ed-WorkingPaper 22-631*. https://doi.org/10.26300/76eq-hj32

Nguyen, T.D., Pharm, L., Springer, M.G., & Crouch, M. (2019). The factors of teacher attrition and retention: An updated and expanded meta-analysis of the literature. *Annenberg Institute at Brown University,* p. 19-149.

Oklahoma State Department of Education. (2021). *Comprehensive teacher pay reform.* https://sde.ok.gov/comprehensive-teacher-pay-reform

Peyton, D. J., Acosta, K., Harvey, A., Pua, D. J., Sindelar, P. T., Mason-Williams, L., Dewey, J., Fisher, T. L., & Crews, E. (2021). Special education teacher shortage: Differences between high and low shortage states. *Teacher Education and Special Education*, *44*(1), 5–23. https://doi.org/10.1177/0888406420906618

Pressley, T. (2021). Factors contributing to teacher burnout during COVID-19. *Educational Researcher*, *50*(5), 325–327. https://doi.org/10.3102/0013189X211004138

Priestley, M., & Biesta, G. (2013). *Reinventing the Curriculum: New trends in curriculum policy And practice*. Bloomsbury Publishing.

Ramos, G., & Hughes, T. (2020). Could a more holistic policy addressing classroom discipline Help mitigate teacher attrition? *jeep: eJournal of Education Policy*, *21*(1), Article 1. http://dx.doi.org/10.37803/ejepS2002

Robinson, O. P., Bridges, S. A., Rollins, L. H., & Schumacker, R. E. (2019). A study of the Relation between special education burnout and job satisfaction. *Journal of Research in Special Educational Needs*, *19*(4), 295–303. http://doi.org/10.1111/1471-3802.12448

Ruitenburg, S. K., & Tigchelaar, A. E. (2021). Longing for recognition: A literature review of Second-career teachers' induction experiences in secondary education. *Educational Research Review*, *33*, Article 100389. http://dx.doi.org/10.1016/j.edurev.2021.100389

Smyth, J. (Ed.) (*1995*). *Critical discourses in teacher development*. Continuum.

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*, *27*(35). https://doi.org/10.14507/epaa.27.3696

Sorensen, L.C., & Ladd,H.F.(2020). The hidden costs of teacher turnover. Aera Open 6.1(2020). 6(1)2332858420905812

Texas Education Agency. (2023). *College, career, or military readiness outcomes bonus thresholds*. https://tea.texas.gov/

Toropova, A., Myrberg, E., & Johansson, S. (2021). Teacher job satisfaction: The importance of School working conditions and teacher characteristics. *Educational Review, 73*(1), 71–97. https://doi.org/10.1080/00131911.2019.1705247

U.S. Department of Education. (2021). *Fact sheet: The U.S. Department of Education announces Partnerships across states, school districts, and colleges of education to meet Secretary Cardona's call to action to address the teacher shortage.* https://www.ed.gov/coronavirus/factsheets/teacher-shortage

Van der Walt, J., & Potgieter, H. (2015). Postmodern relativism and the challenge to overcome the "value-vacuum." *Stellenbosch Theological Journal*, *1*(1), 235–254. http://dx.doi.org/10.17570/stj.2015.v1n1.a12

Whitaker, I. (2015, November 27). Nevada needs teachers, and it is shelling out $5 million to get them. *The Las Vegas Sun.* https://lasvegassun.com/news/2015/nov/27/nevada-needs-teachers-and-its-shelling-out-5-milli/

Zamarro, G., Camp, A., Fuchsman, D., & McGee, J. B. (2022). Understanding how Covid-19 has changed teachers' chances of remaining in the classroom. Working paper 2022-01. *Department of Education Reform, University of Arkansas.* https://scholarworks.uark.edu/edrepub/132

Dr. Cordelia Azumi Yates is an Assistant Professor of Education at Morningside University in Sioux City, Iowa. She primarily teaches in the undergraduate program, preparing preservice teachers enrolled in special education programs. Additionally, she teaches graduate students in the Education summer program. Dr. Yates' areas of expertise include special education, inclu-

sion, and teaching English as a second language, with a focus on creating culturally inclusive environments. She has published several articles in the field of teacher education. Dr. Yates is happily married and has five children. Contact Information: Yatesc@morningside.edu.