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From Statistical to Analytic Generalization: New Directions for Qualitative Research on Teacher Retention

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Quantitative research has played a prominent role in studies and policies focused on teacher retention. However, the field would benefit from qualitative research that utilizes analytic generalization, an approach where researchers generalize from empirical data by creating theoretical propositions about how, why, and under what conditions certain phenomena occur. This essay distinguishes analytic generalization from other forms of theory and generalization (i.e., case-to-case transferability) and provides examples of the current use and utility of analytic generalization in other areas of education research. It concludes by discussing new theoretical propositions that can be tested through study replication, highlighting the need for new qualitative research directions in teacher retention, and explaining how theoretical propositions can inform the development of practical solutions.

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Abstract

Quantitative research has played a prominent role in studies and policies focused on teacher retention. However, the field would benefit from qualitative research that utilizes analytic generalization, an approach where researchers generalize from empirical data by creating theoretical propositions about how, why, and under what conditions certain phenomena occur. This essay distinguishes analytic generalization from other forms of theory and generalization (i.e., case-to-case transferability) and provides examples of the current use and utility of analytic generalization in other areas of education research. It concludes by discussing new theoretical propositions that can be tested through study replication, highlighting the need for new qualitative research directions in teacher retention, and explaining how theoretical propositions can inform the development of practical solutions.

Introduction

To the extent that evidence is used in public policy and practice, quantitative research plays an outsized role in shaping discussions and decisions (Maxwell, 2020). While this applies to many areas of public policy, one illustrative example is research on teacher retention. This essay focuses on this area of research to illustrate the potential for theoretical propositions and analytic generalization to strengthen the relevance and utility of qualitative work in this field.

Teacher shortages and turnover have been topics of concern for decades. Recent studies have only heightened these concerns: interest in teaching is at an all-time low (Kraft & Lyon, 2024), states experienced higher than average post-pandemic turnover (Barnum, 2023), and research in the last decade underscores the negative effects of chronic turnover on school culture and student achievement (Holme et al., 2017; Jabbar & Holme, 2025; Ronfeldt et al., 2013). Despite significant research on this problem, we have a limited understanding of how to solve these chronic and recurring challenges (Perrone, 2022).

While teacher turnover and shortages have earned numerous headlines and received much policy attention, there is no shortage of *research* on turnover. One systematic review of K-12 teacher turnover returned nearly 26,000 studies in the preliminary search phase, and most empirical studies were quantitative (Nguyen & Springer, 2021). Quantitative research has considerable strengths when it comes to the study of turnover. Advances in analytic techniques and large or nationally representative datasets has generated strong evidence that schools as organizations play perhaps the most powerful role in shaping teachers' decisions to stay in or leave their schools (Simon & Johnson, 2015). Compelling quantitative evidence also identifies leadership and teachers' working conditions as primary organizational drivers of turnover and

shown how these factors matter across a variety of individual, organizational, and external contexts (Merrill, 2021; Nguyen & Springer, 2021; Perrone, 2021).

Quantitative research also has important limitations. For one, it can mask how differences in context and process (e.g., the chains of events/circumstances) lead to outcomes (Maxwell, 2020). For example, researchers using waves of nationally representative Schools and Staffing Survey (SASS) data often find that levels of teacher influence and autonomy are important predictors of retention (e.g., Ingersoll & Tran, 2023). Yet the reasons behind these perceptions of autonomy and their connection to turnover can be quite different depending on the context. To illustrate: compared to novices, more experienced teachers may desire greater instructional autonomy as they grow in their expertise (Quartz et al., 2010) and research on the connection between autonomy and turnover shows how teachers of color may disagree with the racialized ways in which students of color are socialized and treated in highly structured "no-excuses" charter schools and thus desire more autonomy to influence school practices and policies (Torres, 2014). Thus, quantitative research may identify lack of autonomy as a significant cause of teachers leaving, but the underlying reasons and causes in these examples differ. In this case the connection between autonomy and turnover depends on the organizational context and the differences in preferences, characteristics, or psychological needs of the individual. This means any solutions to problems with retention are necessarily *context dependent*.

Principals and the working conditions they directly or indirectly create shape career outcomes, so improving teacher retention starts with the knowledge and actions of educational leaders who deal with large differences in context – different schools, students, teachers, and communities. Qualitative research is crucial for identifying causal mechanisms and the

conditions that influence outcomes in specific contexts (Maxwell, 2020). Despite this, qualitative methodology receives far less attention in advancing knowledge related to teacher retention.

The Allure of Causality and Generalizability

Generalization is an act of reasoning whereby researchers or readers apply study results to a broader context. It is widely accepted as a sign of quality in quantitative research and is arguably underutilized in qualitative research (Maxwell, 2012; Polit & Beck, 2010, p. 1451). Statistical generalization and quantitative causal methods remain "gold standards" for educational research and research on teacher attrition (Nguyen & Springer, 2021). For instance, the What Works Clearinghouse's evaluation criteria favors studies that use randomized controlled trials and quasi-experimental quantitative designs despite strong arguments that qualitative methods are "necessary" for generalization (Maxwell, 2021). Maxwell (2012) compellingly argued that qualitative research is essential for causal explanation in education because outcomes in social science are influenced by the *processes*, *contexts* (the physical, social, cultural elements at play), and the *meaning* that individuals assign to these contexts and processes which shape their cognition and behavior.

A key critique qualitative researchers face is that cases are not generalizable – that what happens in one or a handful of contexts is unique, descriptive, and thus lacks explanatory power outside of the case or cases (Yin, 2014). However, in an *Educational Researcher* essay, Firestone (1993) articulated three arguments for generalization that included two using qualitative data: "(a) extrapolation from sample to population [statistical generalizability], (b) analytic generalization or extrapolation using a theory, and (c) case-to-case translation" (p. 16). The latter two, he argued, are ways to generalize from qualitative data, with case-to-case translation (or transferability) happening through thick description of the setting, context, and conditions of a

case or cases and having readers compare how it would map onto their context. I later describe why this approach is impractical and focus here on analytic generalization, which is promising and underexplored.

Analytic generalization posits that cases are generalizable not to populations or universes (as in statistical generalization) but to *theoretical propositions* – explanatory statements about how, why, and under what conditions certain phenomena are expected to occur (Yin, 2014). Researchers do not attempt to form generalizations that will hold across people and place; they form working hypotheses that can be transferred from one context to another depending on the fit between contexts. Analytic generalization is where "researchers strive to generalize from particulars to broader constructs or theory" (Polit & Beck, 2010, p. 1453) by generating theoretical propositions from empirical data. These propositions can be sensitive to differences in context because they focus on underlying mechanisms and processes that influence specific outcomes. They can also be iteratively tested and refined. Analytic generalization involves identifying theories and testing them with qualitative data to "corroborate, modify, reject or otherwise advance theoretical concepts … or [propose] new concepts" and develop working hypotheses that can be generalized to a variety of situations (Yin, 2014, p. 41). According to Firestone (1993), "when one generalizes to a theory, one uses the theory to make predictions and then confirms those predictions…when conditions vary, successful replication contributes to generalizability" (p. 17). Analytic generalization can build theory by testing and confirming the conditions under which it applies (and does not) with varied cases and circumstances.

Theoretical Propositions and Analytic Generalization in Education Research

An example illustrates how education researchers have applied these ideas and techniques in other fields of inquiry. Mario Luis Small (2019) conducted a qualitative case study

following a set of graduate students in three academic departments to determine who they confided in and why during a time characterized by significant life change and stress. He first articulated the intuitive idea and dominant social network theory thought to predict the answers to these questions: that most people have a "core network" of close confidants (e.g., family members, best friends) who they trust and turn to for advice and disclosure. Contrary to theoretical expectations, he found that these students "seem to replace confidants easily, to avoid strong ties often, and to approach weak ones readily, even without giving the matter much thought" (Small, 2019, p. 151).

But why? One argument is that these theories and prior literature examined individuals' beliefs but not their behavior, which can (and often do) contradict each other. Second, although the dominant theory was not universally wrong, whether it held true depended on contextual factors such as whether/how ties had a shared institutional or interactional context. Essentially, the original theory often held *if* networks/ties shared an institutional context (e.g., family, school). One reason they diverged, however, is because an individual spends time in many different contexts and one's strong ties do not always share knowledge and understanding of these different spaces. Based on empirical testing of prior theories, Small (2019) developed new theoretical propositions about whom individuals consider, what they consider, and how they decide who they will confide in (see Table 1, below).

Table 1: Empirically Grounded Theoretical Propositions for Confiding (Small, 2019)

Decisions to Confide	**Theoretical Proposition**
Whom They Consider	*"The pool of individuals from which people decide whom to confide in is not merely the few in their network of support but also the many in their routine interactions" (p. 157).*
What They Take Into Account	*"To the extent people deliberate on whom to talk to, what they consider is less the strength of the tie than its inherent*

	expectations, and less how well the confidant is known than how well the confidant can empathize" (p. 158).
How They Decide	*"Although people must always decide whether to confide in others, they do not always decide through the same cognitive process… [some deliberate extensively, others do not]" (p. 160).*

These new propositions considered how graduate students had interactions in multiple spaces – many of them new, which led to replacement of confidants and the willingness to confide in weak rather than strong ties (e.g., weak ties who shared a context could empathize, while strong ties often could not).

The goal of analytic generalization is to develop logical and empirically grounded arguments to explain why, how, and under what conditions a phenomenon occurs and to be able to apply these working hypotheses to a variety of contexts where it is at play. In a closing chapter dedicated to analytic (or theoretical) generalizability, Small (2019) assesses the ability of these three propositions to "explain how doctors, soldiers, teachers, and others facing difficulties…. [decide] to turn to for support" (p. 152). Examining these varied professional cases and their respective hierarchies, Small (2019) illustrates how insights from a case study of graduate students could still apply in terms of avoiding strong ties when they fear incompatible or conflicting expectations, approaching weak ties when they expect cognitive empathy, and being willing to confide in others spontaneously.

This example shows how to approach analytic generalization and make it a more transparent part of the research process. Doing so would allow findings to a) be sensitive to context, b) provide lessons that are applicable beyond the specific case, and c) be a foundation for researchers to test, corroborate, modify, or reject theories through empirical investigation.

The Limits of Existing Frameworks and Case-Specific Qualitative Research

Grand theories are useful for framing disciplinary knowledge and provide concepts and propositions that "transcend specific events and [populations]" but are overly abstract and less sensitive to context (Higgins & Shirley, 2000, p. 180). Theories around "psychic rewards" of teaching (Lortie, 1975), teachers' "sense of success" (Johnson et al., 2004), and models emphasizing organizational and personal factors that influence turnover (Nguyen & Springer, 2021) are well-established and useful for understanding the field and organizing research but are limited in helping to address or understand context-specific problems.

Qualitative studies are designed precisely to surface such nuance. Qualitative researchers have illuminated some causal mechanisms underlying teachers' decisions, yielding richly contextualized findings that are highly relevant to the focal case but a) often lack transparent pathways for transferability and b) are inconsistent or in tension with findings from other studies or cases. One example is from research on the influence of schoolwide disciplinary expectations on teachers' career decisions. A school with strict disciplinary expectations may get dramatically different reactions depending on teacher beliefs. A teacher with strong beliefs about race and inequality may perceive the school's efforts as oppressive, disrupting teacher and student well-being and autonomy while a different teacher may appreciate the practices (Torres, 2014).

Tensions like this surface a persistent challenge. Broader theories and frameworks lack the context-sensitivity needed for policy and practice while other qualitative findings are so attuned to local context that the explanatory value is limited to specific situations. This is consistent with a form of "micro-theory," in which working hypotheses are developed to explain a "particular or immediate relationship in a smaller group of persons; or frequently, a single person" and is limited in scope and generalizability (Higgins & Shirley, 2000, p. 181).

Theoretical propositions can be a useful middle ground, helping to explain how, why, and under what conditions variations in phenomena occur. These propositions are consistent with "middle-range theory" which is "more specific and less formal" than grand theory, and "sufficiently specific to guide research and practice, yet sufficiently general to cross multiple [populations] and to encompass similar phenomena" (Higgins & Shirley, 2000, p. 181). For example, table 2 (below) illustrates differences in levels of theory, with the middle row illustrating a theoretical proposition that could support analytic generalizability.

Table 2: Examples of Grand, Middle, and Micro Theory to Explain Retention Outcomes

Theory type	**Level of Abstraction**	**Example of Inference or Proposition**
Grand theory	Disciplinary knowledge; relevant to a population (i.e., "sense of success")	Perceptions of student discipline strongly shape teacher efficacy or "sense of success"
Middle-range theory (*theoretical proposition*)	Generalizable across cases with similar, relevant phenomena (*transferability*)	When teachers' ideas about what is best for students or teachers conflicts with school practices, and they have little voice in the process or autonomy to influence them, teachers experience internal or external conflict and leave
Micro-theory	Specific to a case or context	A teacher of color with strong "racial literacy" experiences a school's disciplinary system and expectations as oppressive for students and teachers

While existing frameworks often describe what factors predict turnover, they do less to highlight how, why, or when these factors operate differently depending on context. By contrast, most qualitative work provides case-specific causal logic but rarely identify elements that might apply across different contexts. Theoretical propositions help predict how social processes operate, can be systematically evaluated and refined, support generalizable insights that apply to different contexts, and explain social phenomena beyond simple description (Small, 2019).

Theoretical Propositions: Bridging Theory and Context

Theoretical propositions surface insights that are relevant to the specific phenomena or construct that might apply in different kinds of contexts. This is an important distinction because practitioners and researchers can focus on processes or constructs that seem relevant to their context and not just whether the individual or organization being studied is sufficiently similar to another. Table 3 (below) highlights three constructs that are known to influence mobility and turnover (see Nguyen & Springer, 2021 for a review).

Table 3: Theoretical Propositions for How Teachers' Sense of Success Varies by Context

Construct	**Relevant Contexts**	**Theoretical Proposition**
Student Behavior	• High poverty schools • Teachers of Color • New Teachers	*Perceptions of student engagement, motivation, and behavior that are shaped by teachers' background (i.e., preparation, race), and mediated by perceptions of support affect job mobility*
Autonomy	• Experienced Teachers • Teachers of Color • Recruitment (Fit)	*When teachers' ideas about what is best for students or teachers conflicts with school practices, and they have little voice in the process or autonomy to influence them, teachers experience internal or external conflict and leave*
Connection to People and/or Place	• Rural Teachers • Teachers of Color • Returning to "Home"	*To the extent that teachers feel a sense of connection to the community or place within and/or outside the school, they may have a deeper sense of commitment, have or be better able to create strong relationships, and thus be more likely to stay*

Looking at the middle row, the causes of autonomy or lack of teacher voice influencing teacher mobility can differ based on context, whether it is experienced teachers who desire greater autonomy from prescriptive curricula because their expertise has grown (Quartz et al., 2010), or teachers of color feeling underappreciated and overlooked for their cultural funds of knowledge and ideas that are not listened to or integrated into school policies or practices (Dixon, Griffin, &

Teoh, 2019). Although the root causes are different, the processes and mechanisms are similar: teachers can have strong expertise and opinions that may be ignored or stifled, which can affect how they experience the job in ways that influence their decisions to stay or leave.

Similarly, other possible theoretical propositions can bridge radically different cultural contexts, one is the connection to people or place. Scholars have noted that many teachers have a preference to return to teach near where they grew up, and that teachers of color disproportionately work with students of color, often for culturally affirming and humanistic reasons (Bristol & Carver-Thomas, 2024). The theoretical proposition in the last row of Table 3 might apply in these cases but might also extend to rural communities. Scholars note the centrality of the school within rural communities, as a hub for events and relationships (e.g., Brenner, Azano, & Downey, 2021), especially when communities must rely on the same set of institutions across dimensions of race and class in a way that is not the case in urban locales (Marietta & Marietta, 2021). Since many rural locales are at the same time more isolated from other communities *and* the local community is more intimately connected within and outside of the school, whether teachers have or develop connections often has stronger salience to their career decisions than more densely populated spaces (Seelig & McCabe, 2021). However, empirical qualitative work is needed from different contexts (i.e., urban, rural, teachers with different relationships with people and place) to corroborate, reject, and/or modify these claims. Developing and testing a set of theories and theoretical propositions in this way might be more useful than current forms of evidence and provide new directions for research.

Advantages of Analytic Generalization for Research and Practice

Again, analytic generalization involves testing these theories or propositions in different contexts to modify, reject, or advance them (Polit & Beck, 2010; Yin, 2014). One way to do this

is by identifying contexts where certain constructs have known salience. For instance, nationally representative data suggests that rural schools are increasingly challenged with turnover, and that limited autonomy and input into decision-making are cited as one of the biggest influences on rural teachers' decisions to leave (Ingersoll & Tran, 2023). But why? Are there specific issues with rural leadership? Common organizational problems/practices, or cultural aspects that are unique to rural schools? Testing propositions about autonomy in different contextual spaces would simultaneously advance theory while helping us understand the unique organizational or cultural elements at play in rural schools.

Theoretical propositions may be particularly useful to practitioners compared to statistical generalization or more typical qualitative models of generalization such as transferability or *reader generalizability* (Polit & Beck, 2010). Quantitative generalization finds important patterns but fails to identify explanations and solutions. In terms of transferability, qualitative studies often provide rich contextual details and causal links but generalization is in the eyes of the reader, who is expected to "make good judgments about the proximal similarity of study contexts and their own environments" based on thick description about the setting, participants, and observed interactions and processes (Polit & Beck, 2010, p. 1453). Under this second model there are practical constraints-- practitioners or policymakers would need to *read* all these details. Even if they had the time, inclination, and training to do so, authors would be restricted in writing at the level of depth and detail needed to support transferability because of page and word limits in peer-reviewed journals (Polit & Beck, 2010). To be clear, qualitative studies with thick description and logical inferences specific to the data/case are necessary and relevant but the field would be stronger if complemented by building a robust theoretical knowledge base.

Solutions to local problems are context dependent, and theoretical propositions can at least identify causal mechanisms and conditions that are meaningful across contexts (Maxwell, 2020). Principals or other leaders might use data from school climate surveys, informal and exit interviews, and other local knowledge to some of the issues at play in their building that align with theories for why teachers leave. If they suspect teachers are dissatisfied with autonomy or voice, they might theorize what these issues are in their local context (i.e., what exactly do they want a voice in?), and how it might be at play for the school and different kinds of teachers within it. Schools can use improvement science and design-based approaches to test propositions and devise solutions, using different kinds of data collection and analysis strategies (i.e., 5 essentials-style surveys, PDSA cycles, driver diagrams, focus groups, appreciative inquiry) to identify salient issues and organizationally relevant problems of practice.

Theoretical propositions move us away from simply using studies that detail "what happened here" to the notion that a specific set of conditions tends to produce these outcomes, according to theory. Understanding these conditions provides more of a framework that helps practitioners identify likely root causes rather than attempting to replicate approaches from other contexts or apply findings from other studies that may or may not fit one's own.

New Directions for Research

Given these insights, there are many new directions and implications for researchers. Case study methodologists argue that there are three axes that require attention for holistic understanding of social phenomena: 1) a vertical axis that attends to how the local and broader external policy environments (i.e., state, national, global) influence outcomes, 2) a horizontal axis that compares how phenomena unfold in different locations or contexts, and 3) a transversal

axis comparing changes over time, accounting for historical considerations, processes, and relationships (Bartlett & Vavrus, 2016).

There is a need for more qualitative work that attends to all three axes, particularly the transversal axis. Susan Moore Johnson and collaborators (2004) led one of the largest, most methodologically rigorous qualitative studies of teachers' careers and career decisions, following 50 new teachers over a 3-year period who worked in different contexts to understand their experiences and how personal and organizational factors influenced their decisions to stay in or leave their jobs. They argued that the context for teachers' work and expectations of and for the new generation of teachers was very different compared to prior generations: shifts like one's expectations for a career in teaching, greater expectations and accountability for teachers from policymakers and the public, and changes in women's access to the broader labor market made it necessary to see how new teachers made decisions about whether to persist in light of how they were experiencing their jobs (Johnson et al., 2004). The project began in 1999, yet this remains one of the only large scale qualitative, longitudinal studies on teachers' career decisions. An argument that the context for teachers' work has changed significantly 25 years later can easily be made: accountability policy changes, generational differences in orientations towards work, the increased salience of partisan politics in schools, the influence of social media and technology, increases in child absenteeism, anxiety, and depression, and growing concerns about the adequacy of teacher pay arguably affect and reflect how the newest teachers view their work and a career in teaching (Will, 2019). There are also more recent developments affecting whether and how teachers experience the psychic rewards that keep them committed to their work, such as the introduction of artificial intelligence and newer pathways to teaching like for-profit asynchronous teacher preparation programs and Grow Your Own programs.

There are also ways to attend to the horizontal axis: few qualitative studies examine specific contexts like rural schools/teachers, special education and STEM teachers, comparisons between suburban contexts and other schools, or how and why career decisions and experiences vary for early career teachers who are more effective than their peers. So, what should researchers do? Qualitative methodologists argue as explicitly for replication as experimental researchers, to clarify and confirm theory to support generalization. According to Firestone (1993), single studies provide weak support for a theory: replication under conditions that exactly repeat the original study can support reliability of conclusions, and replication with intentionally varied conditions can support analytic generalizability in two ways. First, "similar results under different conditions illustrate the robustness of the finding," and second, different results can help clarify the scope and conditions of theories (Firestone, 1993, p. 17). For example, connection to people and place in rural schools might apply in certain kinds of communities but less so in others in ways that clarify when the theory is most and least salient. Replication can also capture the influence of broader contextual changes on teachers' experiences and careers that have transpired in recent years. Attending to analytic generalization and replicating Johnson's (2004) qualitative, longitudinal design in different, understudied contexts while accounting for recent changes in the external environment would improve the theoretical and practical knowledge base on teacher retention and teachers' careers.

Conclusion

In this essay, I argue that more qualitative research on teacher retention is warranted, and that using analytic generalization to develop theory would advance this field of knowledge and have practical value. This is not to say that current research is unimportant or lacks value. Many advances have been made in the last several decades, from gathering convincing evidence around

the most important drivers of turnover to carefully detailed qualitative studies that examine context, process, and the meaning individuals make from their experiences in very specific settings that resonate with practitioners, researchers, and policymakers. I am simply making a case for how we can use analytic generalization to *complement* the strengths of existing approaches that predominantly favor causality, statistical generalizability, and transferability.

Analytic generalization is a way to generalize from data to theory by creating theoretical propositions, or logically articulated hypotheses that specify the conditions and mechanisms under which outcomes occur that can then be tested, adapted, or applied in both future research and practical settings based on the degree of contextual fit. In this way, they provide a framework for understanding how or why things work beyond the description or specifics of a case, as is typical for reader transferability. Theoretical propositions anticipate under what conditions certain interventions or decisions to improve teacher retention may succeed or fail and can establish an empirically grounded theoretical knowledge base to improve conditions for teachers.

References

Bartlett, L., & Vavrus, F. (2016). *Rethinking case study research: A comparative approach*. New York, NY: Routledge.

Barnum, M. (2023, June 27). The teaching profession is facing a post-pandemic crisis. *Chalkbeat.* https://www.chalkbeat.org/2023/6/27/23774375/teachers-turnover-attrition-quitting-morale-burnout-pandemic-crisis-covid/

Brenner, D., Azano, A. P., & Downey, J. (2021). Helping new teachers stay and thrive in rural schools. *Phi Delta Kappan*, *103*(4), 14-18.

Bristol, T. J., & Carver-Thomas, D. (2024, May). *Facing the Rising Sun: Black Teachers' Positive Impact Post-Brown*. Learning Policy Institute. https://learningpolicyinstitute.org/media/4320/download?inline=&file=Spencer_Brown_Rising_Sun_PAPER.pdf

Dixon, R.D., Griffin, A.R., & Teoh, M.B. (2019). "If you listen, we will stay: Why teachers of color leave and how to disrupt teacher turnover." *The Education Trust & Teach Plus*, Washington DC.

Firestone, W. A. (1993). Alternative arguments for generalizing from data as applied to qualitative research. *Educational Researcher*, *22*(4), 16-23.

Higgins, P. A., & Shirley, M. M. (2000). Levels of theoretical thinking in nursing. *Nursing Outlook*, *48*(4), 179-183.

Holme, J. J., Jabbar, H., Germain, E., & Dinning, J. (2018). Rethinking teacher turnover: Longitudinal measures of instability in schools. *Educational Researcher*, *47*(1), 62-75.

Ingersoll, R. M., & Tran, H. (2023). Teacher shortages and turnover in rural schools in the US: An organizational analysis. *Educational Administration Quarterly*, *59*(2), 396-431.

Jabbar, H., & Holme, J. J. (2025). Teacher Turnover, Social Capital, and Improvement: How Instability Disrupts Schools. *Educational Evaluation and Policy Analysis*, 01623737241311304.

Johnson, S. M. and the Project on the Next Generation of Teachers (2004). *Helping new teachers survive and thrive in our schools.* San Francisco, CA: Jossey-Bass.

Kraft, M. A., & Lyon, M. A. (2024). The Rise and Fall of the Teaching Profession: Prestige, Interest, Preparation, and Satisfaction Over the Last Half Century. *American Educational Research Journal, 61*(6), 1192-1236. https://doi.org/10.3102/00028312241276856

Lortie, D. C. (1975). *Schoolteacher: A sociological study*. University of Chicago Press.

Marietta, G., & Marietta, S. (2021). *Rural education in America: What works for our students, teachers, and communities*. Cambridge, MA: Harvard Education Press.

Maxwell, J. A. (2021). Why qualitative methods are necessary for generalization. *Qualitative Psychology*, *8*(1), 111.

Maxwell, J. A. (2020). The value of qualitative inquiry for public policy. *Qualitative Inquiry*, *26*(2), 177-186.

Maxwell, J. A. (2012). The importance of qualitative research for causal explanation in education. *Qualitative inquiry*, *18*(8), 655-661.

Merrill, B. C. (2021). Configuring a construct definition of teacher working conditions in the United States: A systematic narrative review of researcher concepts. *Review of Educational Research*, *91*(2), 163-203.

Nguyen, T. D., & Springer, M. G. (2021). A conceptual framework of teacher turnover: a systematic review of the empirical international literature and insights from the employee turnover literature. *Educational Review*, 1-36.

Perrone, F. (2022). The role of educational leadership in teacher retention. In D. Fisher (Ed.), *Routledge encyclopedia of education*. Routledge. https://doi.org/10.4324/9781138609877-REE85-1

Polit, D. F., & Beck, C. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International journal of nursing studies*, *47*(11), 1451-1458.

Quartz, K. H., Olsen, B., Anderson, L., & Lyons, K.B. (2010). *Making A Difference: Developing Meaningful Careers in Education.* Boulder, Colorado: Paradigm Publishers.

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, *50*(1), 4-36.

Seelig, J. L., & McCabe, K. M. (2021). Why teachers stay: Shaping a new narrative on rural teacher retention. *Journal of Research in Rural Education, 37*(8). https://doi.org/10.26209/jrre3708

Simon, N., & Johnson, S. M. (2015). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record*, *117*(3), 1-36.

Small, M. L. (2019). *Someone to talk to*. New York, NY: Oxford University Press.

Torres, A.C. (2014). "Are we architects or construction workers?" Re-examining teacher autonomy and turnover in charter schools. *Education Policy Analysis Archives, 22*(124). http://dx.doi.org/10.14507/epaa.v22.1614

Will, M. (2019, December 12). 10 Ways the Teaching Profession Has Changed Over the Past 10 Years. *Education Week.* https://www.edweek.org/teaching-learning/10-ways-the-teaching-profession-has-changed-over-the-past-10-years/2019/12

Yin, R.K. (2014). *Case Study Research Design and Methods.* Thousand Oaks, CA: Sage.