

Review Of Literature On Teacher Effectiveness In Relation To Level Of Aspiration, Burnout And Self-Efficacy Of Teachers At Elementary Level Of Education

*Amila Huidrom and **Dr. Sharda Parsad Singh

*Research Scholar, Department of Education, SunRise University, Alwar, Rajasthan (India)

**Assistant Professor, Department of Education, SunRise University, Alwar, Rajasthan (India)

Email: amilahuidrom@gmail.com

Abstract: While it has become commonplace to argue that high-quality teachers are essential to student learning, unfortunately, there is little clarity about the best means for improving teacher effectiveness, with major consequences for policymakers and researchers alike. Over the last several decades, education reformers have attempted to improve the capacity of the teacher labor force and the quality of instructional content, spawning a voluminous research literature in the process. However, the relationships between measures of teacher effectiveness and student outcomes, whether understood as mean achievement or equity, are inconsistent, and this, in turn, has raised serious questions about the best approach for achieving policy goals. In this sense, the ambiguity in the research literature has left policymakers with little direction as to the best approaches to reform. In addition, variation across countries in how various measures of teacher quality are related to student outcomes has made cross-country transfer of educational ideas difficult, since without understanding whether (or why) policies work differently in different national contexts, it is hard to know whether (or when) a particular policy should be adopted. [Huidrom, A. and Upadhyay, V. **REVIEW OF LITERATURE ON TEACHER EFFECTIVENESS IN RELATION TO LEVEL OF ASPIRATION, BURNOUT AND SELF-EFFICACY OF TEACHERS AT ELEMENTARY LEVEL OF EDUCATION.** *N Y Sci J* 2025;18(3):15-18]. ISSN 1554-0200 (print); ISSN 2375-723X (online). <http://www.sciencepub.net/newyork>. 03. [doi:10.7537/marsnys180325.03](https://doi.org/10.7537/marsnys180325.03)

Keywords: Review Of Literature; Teacher Effectiveness; Aspiration; Burnout; Self-Efficacy Of Teachers; Elementary Level Of Education

Introduction:

In this study, we took advantage of the design of TIMSS to examine key teacher characteristics (experience, education, and preparedness to teach) and teacher behaviors (instructional time and instructional content) and assessed how these were related to student outcomes using data collected for both grade four and grade eight during the multiple past cycles of TIMSS. We used national curriculum data collected by the TIMSS assessments to assess the relationship between teacher instruction and national curricular standards (e.g., instructional alignment) and educational outcomes with attention paid to overall and socioeconomic status based inequality at the student and country level. We explored the evolution of these associations over time using multiple methods, including regression, fixed effect, and structural equation modeling. We also paid close attention to the methodological complexities involved with using TIMSS data and their impact in examining the relationships between teacher measures and student outcomes. Our primary focus was student learning in mathematics. Although international assessments have also examined reading and science achievement, the research and hence presents a better example of the impact of schools and teachers on student outcomes because learning of mathematics takes place principally inside the classroom. Whereas students may be well exposed to reading, the use of language, or basic scientific concepts outside school, they tend to have much more limited exposure to

mathematical concepts before they enter school (Sparks 2017).

Our approach also enabled us to examine whether the significant cross-country variation in some of the observed associations (especially the relationships of teacher experience and teacher education with achievement) was more consistent within countries. Examining trends provides a means to evaluate the success of an education system in strengthening teacher quality, improving coherence, and reducing inequality. This report builds on an initial valuable exploration of these topics undertaken by Mullis et al. (2016), in which TIMSS trend data was used to demonstrate considerable national-level curriculum reform (leading to greater instructional coherence), strengthened teacher preparation requirements, a reduction in standard deviations in student performance, but little change in the amount of time devoted to teacher professional development or to mathematics instruction. The conceptual model that we used in this report builds on the work of Blomeke et al. (2016), who applied a structural equation modeling approach to the TIMSS 2011 data, analyzing each country separately. Their model included teacher observable characteristics (years of experience, college major, and specialization), professional development (participation in broad mathematics instruction professional development, specific mathematics instruction professional student achievement. The relationship of these predictors with student outcomes are mediated by

instructional quality, operationalized as a latent variable derived from clarity of instruction, supportive climate, and cognitive activation indicators.

Review of Literature

Blomeke et al. (2016) also controlled for student gender and books in the home in their analysis. While our model is based on the Blomeke model, we incorporated several additional components. Blomeke et al. (2016) noted a weak relationship between instructional quality and student outcomes.

Researchers agree that teachers are one of the most important school-based resources in determining students' future academic success and lifetime outcomes (Chetty et al. 2014; Rivkin et al. 2005; Rockoff 2004). As a consequence, there has been a strong emphasis on improving teacher effectiveness as a means to enhancing student learning. Goe (2007), among others, defined teacher effectiveness in terms of growth in student learning, typically measured by student standardized assessment results. Chetty et al. (2014) found that students taught by highly effective teachers, as defined by the student growth percentile (SGPs) and value-added measures (VAMs), were more likely to attend college, earn more, live in higher-income neighborhoods, save more money for retirement, and were less likely to have children during their teenage years. This potential of a highly effective teacher to significantly enhance the lives of their students makes it essential that researchers and policymakers properly understand the factors that contribute to a teacher's effectiveness. However, as we will discuss in more detail later in this report, studies have found mixed results regarding the relationships between specific teacher characteristics and student achievement (Wayne and Youngs 2003). In this chapter, we explore these findings, focusing on the three main categories of teacher effectiveness identified and examined in the research literature: namely, teacher experience, teacher knowledge, and teacher behavior. Here we emphasize that much of the existing body of research is based on studies from the United States, and so the applicability of such national research to other contexts remains open to discussion.

Teacher experience refers to the number of years that a teacher has worked as a classroom teacher. Many studies show a positive relationship between teacher experiences and student achievement (Wayne and Youngs 2003). For example, using data from 4000 teachers in North Carolina, researchers found that teacher experience was positively related to student achievement in both reading and mathematics (Clotfelter et al. 2006). Rice (2003) found that the relationship between teacher experience and student achievement was most pronounced for students at the secondary level. Additional work in schools in the United States by Wiswall (2013), Papay and

Kraft (2015), and Ladd and Sorenson (2017), and a Dutch twin study by Gerritsen et al. (2014), also indicated that teacher experience had a cumulative effect on student outcomes. Meanwhile, other studies have failed to identify consistent and statistically significant associations between student achievement and teacher experience (Blomeke et al. 2016; Gustaffsson and Nilson 2016; Hanushek and Luque 2003; Luschei and Chudgar 2011; Wilson and Floden 2003). Some research from the United States has indicated that experience matters very much early on in a teacher's career, but that, in later years, there were little to no additional gains (Boyd et al. 2006; Rivkin et al. 2005; Staiger and Rockoff 2010). In the first few years of a teacher's career, accruing more years of experience seems to be more strongly related to student achievement (Rice 2003). Rockoff (2004) found that, when comparing teacher effectiveness (understood as value-added) to student test scores in reading and mathematics, teacher experience was positively related to student mathematics achievement; however, such positive relationships leveled off after teachers had gained two years of teaching experience. Drawing on data collected from teachers of grades four to eight between 2000 and 2008 within a large urban school district in the United States, Papay and Kraft (2015) confirmed previous research on the benefits experience can add to a novice teacher's career. They found that student outcomes increased most rapidly during their teachers' first few years of employment. They also found some further student gains due to additional years of teaching experience beyond the first five years. The research of Pil and Leana (2009) adds additional nuance; they found that acquiring teacher experience at the same grade level over a number of years, not just teacher experience in general (i.e. at multiple grades), was positively related to student achievement.

A teacher's professional knowledge refers to their subject-matter knowledge, curricular knowledge, and pedagogical knowledge (Collinson 1999). This professional knowledge is influenced by the undergraduate degrees earned by a teacher, the college attended, graduate studies undertaken, and opportunities to engage with on-the-job training, commonly referred to as professional development (Collinson 1999; Rice 2003; Wayne and Youngs 2003). After undertaking in-depth quantitative analyses of the United States' 1993–1994 Schools and Staffing Survey (SASS) and National Assessment of Educational Progress (NAEP) data sets, Darling-Hammond (2000) argued that measures of teacher preparation and certification were by far the strongest correlates of student achievement in reading and mathematics, after controlling for student poverty levels and language status. As with experience, research on the impact of teacher advanced degrees, subject specializations, and certification has been inconclusive, with several

studies (Aaronson et al. 2007; Blomeke et al. 2016; Hanushek and Luque 2003; Harris and Sass 2011; Luschei and Chudgar 2011) suggesting weak, inconsistent, or non-significant relationships with student achievement. However, several international studies comparing country means found that teacher degrees (Akiba et al. 2007; Gustaffsson and Nilson 2016; Montt 2011) were related to student outcomes, as did Woessman's (2003) student-level study of multiple countries.

In their meta-analysis of teacher effectiveness, Wayne and Youngs (2003) found three studies that showed some relationship between the quality of the undergraduate institution that a teacher attended and their future students' success in standardized tests. In a thorough review of the research on teacher effectiveness attributes, Rice (2003) found that the selectivity of undergraduate institution and the teacher preparation program may be related to student achievement for students at the high school level and for high-poverty students. In terms of teacher preparation programs, Boyd et al. (2009) found that overall these programs varied in their effectiveness. In their study of 31 teacher preparation programs designed to prepare teachers for the New York City School District, Boyd et al. (2009) drew from data based on document analyses, interviews, surveys of teacher preparation instructors, surveys of participants and graduates, and student value-added scores. They found that if a program was effective in preparing teachers to teach one subject, it tended to also have success in preparing teachers to teach other subjects as well. They also found that teacher preparation programs that focused on the practice of teaching and the classroom, and provided opportunities for teachers to study classroom practices, tended to prepare more effective teachers. Finally, they found that programs that included some sort of final project element (such as a personal research paper, or portfolio presentation) tended to prepare more effective teachers. Beyond the institution a teacher attends, the coursework they choose to take within that program may also be related to their future students' achievement. These associations vary by subject matter. A study by Rice (2003) indicated that, for teachers teaching at the secondary level, subject-specific coursework had a greater impact on their future students' achievement. Similarly Goe (2007) found that, for mathematics, an increase in the amount of coursework undertaken by a trainee teacher was positively related to their future students' achievement. By contrast, the meta-analysis completed by Wayne and Youngs (2003) found that, for history and English teachers, there was no evidence of a relationship between a teacher's undergraduate coursework and their future students' achievement in those subjects.

In a review of 14 studies, Wilson and Floden (2003) were unable to identify consistent

relationships between a teacher's level of education and their students' achievement. Similarly, in their review of data from 4000 teachers in North Carolina, Clotfelter et al. (2006) found that teachers who held a master's degree were associated with lower student achievement. However, specifically in terms of mathematics instruction, teachers with higher degrees and who undertook more coursework during their education seem to be positively related to their students' mathematics achievement (Goe 2007). Likewise, Harris and Sass (2011) found that there was a positive relationship between teachers who had obtained an advanced degree during their teaching career and their students' achievement in middle school mathematics. They did not find any significant relationships between advanced degrees and student achievement in any other subject area. Further, using data from the United States' Early Childhood Longitudinal Study (ECLS-K), Phillips (2010) found that subject-specific graduate degrees in elementary or early-childhood education were positively related to students' reading achievement gains.

Another possible indicator of teacher effectiveness could be whether or not a teacher holds a teaching certificate. Much of this research has focused on the United States, which uses a variety of certification approaches, with lower grades usually having multi-subject general certifications and higher grades requiring certification in specific subjects. Wayne and Youngs (2003) found no clear relationship between US teachers' certification status and their students' achievement, with the exception of the subject area of mathematics, where students tended to have higher test scores when their teachers had a standard mathematics certification. Rice (2003) also found that US teacher certification was related to high school mathematics achievement, and also found that there was some evidence of a relationship between certification status and student achievement in lower grades. Meanwhile, in their study of grade one students, Palardy and Rumberger (2008) also found evidence that students made greater gains in reading ability when taught by fully certified teachers. In a longitudinal study using data from teachers teaching grades four and five and their students in the Houston School District in Texas, Darling-Hammond et al. (2005) found that those teachers who had completed training that resulted in a recognized teaching certificate were more effective than those who had no dedicated teaching qualifications. The study results suggested that teachers without recognized US certification or with non-standard certifications generally had negative effects on student achievement after controlling for student characteristics and prior achievement, as well as the teacher's experience and degrees. The effects of teacher certification on student achievement were generally much stronger than the effects for teacher experience. Conversely,

analyzing data from the ECLS-K, Phillips (2010) found that grade one students tended to have lower mathematics achievement gains when they had teachers with standard certification. In sum, the literature the influence of teacher certification remains deeply ambiguous.

References

1. Brenner, S. O., & Bartell, R. (1984). The teacher stress process: A cross-cultural analysis. *Journal of Organizational Behavior*, 5, 183–195.
2. Brouwers, A., & Tomic, W. (1999). Teacher burnout, perceived self-efficacy in classroom management, and student disruptive behaviour in secondary education. *Curriculum and Teaching*, 14(2), 7–26.
3. Eaton, W. W., Anthony, J. C., Mandel, W., & Garrison, R. (1990). Occupations and the prevalence of major depressive disorder. *Journal of Occupational and Environmental Medicine*, 32, 1079–1087.
4. Eddy, C., Herman, K. C., & Reinke, M. W. (2017, August). Single-item teacher stress and coping measures. Poster presented at the American Psychological Association Conference, Washington, DC.
5. Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. *Journal of Personality and Social Psychology*, 50, 571–579.
6. Geving, A. M. (2007). Identifying the types of student and teacher behaviours associated with teacher stress. *Teaching and Teacher Education*, 23, 624–640.
7. Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of Abnormal Child Psychology*, 33, 665–679.
8. Hemmeter, M. L., Santos, R. M., & Ostrosky, M. M. (2008). Preparing early childhood educators to address young children's social-emotional development and challenging behavior. *Journal of Early Intervention*, 30, 321–340.
9. Herman, K. C., & Reinke, W. (2015). *Stress management for teachers: A proactive guide*. New York, NY: Guilford Press.
10. Huberman, A. M., Grounauer, M. M., & Marti, J. (1993). *The lives of teachers*. London, England: Cassel.
11. Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38, 499–534.
12. Ingersoll, R. M. (2002, August 15). High turnover plagues schools. *USA Today*, p. 13A.
13. Jennings, P. A., & Greenberg, M. (2009). The prosocial classroom: Teacher social and emotional competence in relation to child and classroom outcomes. *Review of Educational Research*, 79, 491–525.
14. Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20, 178–187.

3/2/2025