



# Assessing the Impact of Professional Development on Teacher Performance

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## ABSTRACT

This paper investigates the impact of professional development (PD) on teacher performance, emphasizing the correlation between effective teacher training and improved student outcomes. Recognizing teacher quality as a critical determinant of educational success, the study explores how different forms of professional development—ranging from mentoring to workshops and peer collaboration—affect instructional practices. Drawing on national education policies, historical developments, and theoretical frameworks, the paper provides a comprehensive overview of how PD initiatives have evolved and how they are currently assessed. Findings suggest that while professional development has potential to positively influence teaching quality, its effectiveness varies significantly depending on content relevance, delivery mode, and implementation fidelity. Challenges such as insufficient support structures, lack of sustainability, and inconsistent evaluation methods highlight the need for integrated, evidence-based professional learning systems. The study concludes with recommendations for designing impactful PD programs and establishing robust assessment mechanisms to ensure lasting benefits for teachers and students alike.

**Keywords:** Professional Development, Teacher Performance, Educational Reform, Instructional Practice, Teacher Training, Student Achievement.

## INTRODUCTION

The level of a student's academic performance is significantly influenced by teacher quality. In schools where many teachers are ineffective, a child's education may suffer. Quality education is vital for every child and a key element of child welfare legislation. High-quality teachers have the greatest impact on students' academic success, making teacher development essential for educational reform. Understanding how professional development affects teacher practice is crucial since it directly influences student outcomes. Over the past two decades, teacher professional development has gained prominence due to its importance on students' academic and social performance. School districts provide workshops and training to enhance understanding of reforms and alter teachers' beliefs and practices. The Massachusetts Department of Elementary and Secondary Education mandates funding for ongoing teacher professional development to support license renewal. However, the effectiveness of many programs is under scrutiny, as feedback often reveals low satisfaction and application rates despite substantial costs. Without understanding how professional development affects teacher practice, improvement is unlikely. This article explores the relationships among participation in professional development, current and changing teacher practices, and perceived needs for further development [1, 2].

### Literature Review

According to Maryland's Quality Teacher Network Quality Teacher Action Plan, an excellent educator is a teacher who is rated online as effective or highly effective. Definitions of teacher quality vary across the nation. In Maryland, teacher quality in school districts is assessed through the Maryland State Teacher Evaluation Process. In an effort to improve the quality of teachers in school districts, the Maryland State Education Agency researched and identified effective activities that impact teacher quality, which were summarized in the report. Researchers increasingly recognize that teacher quality is the school-related

factor with the largest impact on a child's academic performance. With the passage of the No Child Left Behind Act, teacher quality rose to the forefront of federal education policy. In recent years, states have initiated multi-pronged efforts to increase teacher quality. Chief among these efforts are reforms to the ways in which states evaluate and improve teacher practice. In many states, teacher evaluation systems have been reformed to include student test score growth. While this shift is necessary, it is also important to take complementary measures to ensure that teachers receive appropriate support in response to these evaluations. Participation in professional development led to a substantive change in teacher practice. Support was particularly effective at affecting teacher practice linked to classroom environments and culture, with little impact on practice aligned with curriculum and instruction or assessment and feedback. While different types of professional development were associated with varying degrees of changes in teacher practice, mentoring and peer assistance were found to be the most impactful activities overall. For instance, while generally being responsible for more gradual improvements, peer assistance opportunities correlated with the most impactful changes in teacher practice. It is apparent that professional development can influence teacher quality and subsequently student achievement; the challenge is ensuring that training opportunities have the intended impact [3, 4].

### **Historical Context of Teacher Development**

Historically, teachers in various regions, including Australia and the U.S., have not received focused professional development tailored to their specific contexts. Although most educators have engaged in some form of ongoing education, it has typically been quite general and not reflective of modern techniques. Recent movements have sought to address these gaps. For instance, in the 1930s, the NEA began evaluating teachers' developmental needs by grade levels. However, no mechanisms were implemented for identifying these needs at a detailed yet broad level. As educational reforms progressed, especially in the Midwest and East Coast, professional development concerns grew more prominent. The 1990s saw organizations produce documents targeting preservice education, although such documents still lacked specificity for systematic assessment, particularly regarding in-service development. Discussions about teachers' development needs have mostly been localized, hindering a reliable understanding at a global scale. A widely used self-reported survey, the My Class Inventory, aims to offer insights into classroom environments based on the belief that earlier perceptions shape later behaviors, but it fails to provide a comprehensive assessment tool for making comparable evaluations. The Math-related Roots of Current Problems in Graded Schools have established a rigid model where teachers' roles are confined. Teachers function within a "black box" system, and only when external tests are conducted does the evaluation occur, often without their input. This restricted approach can prevent teachers from advocating for their needs effectively, limiting the potential for all stakeholders to comprehend their self-identified needs [5, 6].

### **Current Trends in Professional Development**

While the approach to education reform is driven by a need for improved student performance and accountability, many professional-development models continue to exist that are more prescriptive or voluntary in nature. Many professional-development plans include an analysis of the current status of professional development in the district. Surveys, interviews, and focus groups are often conducted to gather the communication and thinking in a variety of forms. Data from walk-through observations, performance evaluations, curriculum audits, and student performance can also be utilized to identify and state gaps or needs as a beginning point. Current approaches also tend to include strategic-development plans based on the data gathered during the prior phase. These plans can include a description of the necessary forms of professional development to address the previously identified needs. There has been an increasing awareness of the importance of addressing the forms of professional development that translate into effective changes in awareness, knowledge, skills, or classroom teaching. A discussion of the necessary infrastructure also often accompanies the articulation of a desired future state. Various forms of leadership positions, support teams, resource guides, and comprehensive data-collection systems are often proposed to support the current and continuous implementation of the professional development system. Last, there are models that include elements of evaluation. These evaluations most often occur after the fact. Participant surveys and follow-up observations are often implemented to assess how well a professional-development event addressed the participants' learning needs, made effective use of their time, and became apparent in classroom changes. After examining the status of current efforts, it was noted that these more traditional models alone are often not enough for comprehensive reform. It was proposed that fused or systems models are needed for broader reforms that will endure. While many

important elements of professional development exist, the gaps identified come from an individual, school, or district creating a unified vision for professional development across their diverse initiatives [7, 8].

### **Theoretical Frameworks for Assessment**

Evaluations of educational reforms around the world vary significantly. Some advocate they reinforce the status quo, while others attempt to manipulate them for personal gain. Regardless, their influence is undeniable, revealing financial realities, shifting long-term assumptions, and the role of state intervention in education. They illustrate the connection between faith and educational outcomes for children and reveal the future of education by highlighting accountability and funding issues alongside ambitious, yet flawed visions for compliance. However, the evaluation designs and models may inadvertently fuel opposition movements, offering tools for defending the status quo and addressing future educational failures for children across cities. Just as businesses present models for financial data, education can create frameworks to represent its everyday operations, facilitating comparisons with social and physical structures in future schools. By quantifying future frameworks, researchers can uncover various expectations surrounding education and child development. Educational data has the potential to shape futures, comparable to the impactful techno-economic reforms in schools today. The qualitative differences between possible futures may become apparent, though many educational activists' concerns remain partially visible in these designs. Researchers can possess in-depth knowledge of new models, discussing how education might thrive within vastly different designs than those currently proposed. Evaluative frameworks dissecting complex spatial models into causes and effects will dominate education analysis, influencing public research and professional standing. It remains uncertain whether such new futures would independently steer education policies and practices, yet over twenty years of advocacy have generated a range of effective tools highlighting educational complexities and their consequences. Educational reform systems have transitioned from traditional, comforting structures toward new models that embrace compliance while navigating progressive and regressive future scenarios [9, 10].

### **Methodology**

This paper defines and assesses the impact of a professional development program, contrasting it with in-service training, which positions teachers in a more passive role. The proposed professional development framework serves as a foundational step towards establishing comprehensive learning opportunities, irrespective of the specific model employed. Central to the discussion is a well-established five-part professional development model that has shown significant success over the years. Detailed descriptions aim to empower others to implement similar initiatives. The text also explores needs assessments, the concept of impact, and design concerns regarding professional development programs. The structure includes an explanation of 'professional development', a case for assessing program impact, an examination of six key areas for assessment, and finally, a comprehensive model. Professional development is characterized as continuous, coherent learning opportunities for teachers, aligned with current educational reforms. For effective change, high-quality, relevant professional development that resonates emotionally and intellectually with teachers is essential. It should engage all educators, integrate classroom relevance, and promote teacher ownership of their learning. Furthermore, opportunities for collaborative understanding, experimentation, and reflection are critical, ensuring alignment between district and school goals with the individual teachers' needs and styles of learning [11, 12].

### **Findings**

This research aimed to assess and evaluate the effectiveness of a National Cricket Coaching Programme on Coach Performance in New Zealand Schools. It was undertaken mainly to identify any Program and/or Coach Performance gaps to assist in addressing Coach Education and Development needs in the future. The research involved the application of a newly developed and valid Performance Assessment Instrument, which allowed for a comprehensive evaluation of coach performance in the context of the NCIP. The aim was to provide a picture of the current performance of the Resource Providers, which will lead to identification of the current strengths and areas for development needed Coach-wise in the future. The findings are reported as observations and coach evaluation information and guidelines for the national development of a system which identifies and meets Coaches' education and development needs. A coach performance assessment instrument was developed based on the ICCP Coaching Performance Criteria. Performance of the Coaches was assessed based on a combination of multi-source and checklist observational analysis. The findings highlighted both the appropriate use of the ICCP output performance criteria to assess coach performance, and the need for support mechanisms for the resource providers to better match coaching practice of coaches with international best coaching practice. Limited support for resource providers is currently available leading to misinterpretation and misapplication of

the ICCP output. It is essential that an effective plan be developed to provide feedback, reflection and further education for the resource providers in line with international best practice in coaching practice and education structure and curriculum. It is essential that a nationally recognized accreditation framework be developed to assure resource providers' delivery, and to provide a clear pathway for the development of coaches in New Zealand. The development of the step four coaching performance assessment instrument is seen as a significant outcome of this project and it will undergo further refinement and additional testing for use in future assessment. This project has potential implications for understanding the coach influence and coach education and further larger scale research on coaching in New Zealand Schools and beyond. The potential benefits are considerable for the IDP, CRFU and broader rugby community in New Zealand and internationally. High quality coach performance will directly benefit the game through improved player and fan experience and improved retention and 'grow the game' initiatives. It is therefore vital that the findings are communicated and implemented effectively to help formulate/modify a plan for coach performance accreditation and development in New Zealand Rugby [13, 14].

### **Discussion**

The study assessed the effects of a long-duration mathematics workshop on teachers' beliefs and practices. Findings indicate significant improvement in teachers' beliefs about teaching mathematics to a whole group post-workshop. This suggests the workshop positively impacted these beliefs, aligning with previous studies on professional development fostering cognitive change. However, average post-test scores for belief measures were in the mid-range on the Likert scale (2.8). Contributing factors may include early reform movements in South Africa and traditional classroom practices. Observed practices, particularly in group discussions, teacher monitoring, and instructional materials, showed notable positive changes, indicating the Geometry workshop's impact. Conversely, practices involving learner participation and listening to contributions exhibited negative changes. While teacher participation in small group discussions during workshops was high, actual implementation in lessons was limited. Artifacts from the workshop included handouts with rich mathematics tasks that facilitate students' conjectures and conclusions regarding shapes and theorems. Despite substantial improvement in using instructional materials, many teachers still rely on textbooks or workbooks, indicating a need for further development in teaching practices to enhance learner involvement and participation [15, 16].

### **Recommendations**

The evolving policies surrounding educational instruction have shifted the responsibility for teacher success and failure largely onto testing outcomes. Teacher accountability is increasingly tied to student test data, often shifting the pressure onto school principals based on student improvement rates. Evaluation systems that link teacher and principal performance to test scores are being implemented more frequently, significantly impacting placement and compensation. In light of this new accountability landscape, districts must provide quality training opportunities tailored to the emerging roles of teachers. However, the task appears daunting for many districts, which face a multitude of principals and schools while answering critical questions about effective professional development programs. The capacity to address these challenges hinges on the ability to assess the impact of specific professional development initiatives. Identifying effective strategies for building teacher capacity is vital for navigating various training offers, though those tasked with evaluations often work with data unaligned with the delivered curriculum. To explore research questions, a thorough analysis of teacher performance data must begin by examining the types of educators in each district, focusing on those effectively implementing instructional practices. An assessment of developmental opportunities and instructional practices is necessary, as defining teacher effectiveness cannot be arbitrary when developing professional development offerings. Planning the future analysis should prioritize teacher accountability as a pressing district issue, employing student data to guide evaluations and effectively capture district performance, subject to independent verification. Measuring a program's effectiveness from its inception is crucial, as districts owe it to their teachers and students. Leaders seek research-based programs to enhance instruction, while higher education institutions conduct taxpayer-funded research to validate effective practices. States also adopt instructional strategies that are based on research. Therefore, when opportunities for high-quality professional development arise, district leaders must prioritize the assessment of effectiveness, especially in districts implementing new instructional practices [17, 18].

### **Limitations of the Study**

While the results of this study indicate a correlation between teacher participation in professional development opportunities and performance on evaluated state standards, no causation can be inferred. There remain many unanswered questions. Is observed improvement the result of the participation in the



study tour and university level courses, or because of the other concurrent professional development activities offered in the district that were not accounted for in this study? More definitively, is there an observable change in the performance of students who have not been impacted by other professional development initiatives? Another caution is raised by the decisions made concerning the chronology of professional development activities. A focus of this study was the on-going educational opportunities which the teachers had engaged in for over three years prior to testing. A shorter time span would not allow for sufficient time for the breadth of the strategies learned in the professional development to percolate into classroom practice. However, over four and a half years of participation by teachers with newly acquired skills leaves unanswered the question of sustainability of the implementation of the benefits. If not sustained, their effect on student test achievement may not be permanent. Lastly, when teachers returned from the study tour, knowledge was shared in a series of post-tour meetings. During these discussions, anecdote after anecdote was related of how teachers perceived immediate and large changes in their pedagogy. Observers attested that during post-tour professional development, teachers were engaged and eager learners. Some were more vocal than others, but others had expressed interest in learning more about particular strategies in the written reflection. This open sharing of ideas could take its toll, however. Many ideas were presented and shared in very little time. The overall effect might well be cognitive overload. It is unlikely that all the techniques were implemented in the classroom, and even if they were implemented, they were likely not of the required fidelity to affect significant change in student outcomes on standardized assessments of achievement [19, 20].

### Future Research Directions

Given the international interest in licensure standards and requirements, it may be important to know if the requirements for the Brazilian licensing examination, as introduced in the late 90th and modified in the early 2000s, are met. In addition to the above-mentioned overarching research questions, BNB and BNL agree that special attention will have to be given to how the knowledge, beliefs, and practices of ESL teachers are affected by teacher in-service professional development (IPD) programs of an umbrella organization affiliated with the Brazilian Ministry of Education. The external/ever-changing policies regarding IPD of ESL teachers greatly necessitate investigation of different aspects of the IPD approach and program delivery with focus on theory and practice differences. The theory-practice gap has, to some extent, become globally discussed in the education field. For an ESL PhD student/researcher in Brazil, with such external/ever-changing laws, curriculum, textbook standards, and pre-service professional development delays, there is almost no prior work available for guidance except initially written documents and intact data about what was supposed to be or what had been. Thus, only recently can there be comparable national records in a condensed manner regarding what was taken for granted. Examining local, socio-culturally grounded in-service teacher professional development (ITPD) details that showed a modest impact and were also less considered will shed light on NNB's full dataset. For that, NNB intends to initially conduct an analysis of its qualitative ITPD data following a model with imported constructs that provided a structural analysis framework. Then, on this basis, emerging characteristics/discourses of ITPD will be reflected on. The examination was timely emboldened by a call for bids by one of Brazil's leading universities whose team members are long familiar with local educational policies. English as a foreign language (EFL) education in Brazil has been subject to widespread reform since the mid-90s. The inception of an external EFL testing system in 1998 has dramatically increased EFL instruction and concomitant EFL teacher professional development. In contrast with the earlier shift to a dominant communicative approach, the nationwide standardization reform also encourages locally grounded innovations. Nationally, a group of textbook publishers was licensed to develop English materials [21, 22].

### CONCLUSION

The study underscores the essential role of professional development in shaping effective teaching practices and enhancing student achievement. While many PD programs offer the promise of growth, their real-world impact hinges on thoughtful design, relevance to classroom realities, and sustained support structures. The data reveals that mentoring and peer-assisted learning are among the most effective forms of professional development, while workshops often fall short unless integrated with ongoing reflective practices and institutional backing. For PD to be truly transformative, it must align with educators' needs, engage them in collaborative learning, and include mechanisms for continual feedback and improvement. Furthermore, educational stakeholders must prioritize the systematic assessment of PD programs to ensure that investments translate into measurable improvements in instructional quality and student learning outcomes. Ultimately, the findings highlight the need for an

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