



## The Influence of Technology-Enhanced Professional Development on School Teacher Empowerment

Chandrima Dey<sup>1</sup> & Professor. (Dr.) Santanu Biswas<sup>2</sup>

1. Research Scholar, Department of Education, RKDF University, Ranchi, Jharkhand, India.
2. Professor & Head Department of Education, RKDF University Ranchi, Jharkhand, [santanubb@gmail.com](mailto:santanubb@gmail.com)

### Abstract:

*As the socioeconomic environment changes rapidly, so do the demands for educational reforms, making it more important than ever to provide instructors the autonomy they need to rethink their approaches to the class room in order to better serve their students 'unique learning styles. Research in this area suggests that in order for educators to have an impact on their pupils, they, and themselves, need to feel empowered. Educator agency is therefore fundamental to the processes of quality improvement and institutional development. The researchers want to hear from primary school educators on the ways in which they feel their schools support their professional development. A total of 124 primary school teachers from North Bengal filled out an online survey based on the Teacher Empowerment Scale as part of the quantitative sample survey. Participants exhibit a moderate to high degree of agreement a cross all characteristics of empowerment, as presented and analyzed. In particular, the decision-making component has the greatest mean while the professional growth dimension has the lowest mean.*

**Keywords:** Professional Development, Empowerment, Teachers, Professional Development, Participation, Decision Making.

### 1. Introduction

The educational community faces significant demands and difficulties as a result of any and broad changes in the political, economic, social, and technical fields, with the primary goal of enhancing the quality of education offered through the efficient management of schools. In this setting, educators are being asked to rethink their pedagogical and instructional strategies in light of them any new responsibilities that have been placed on them. Teachers' poor social position and lack of acknowledgment has been linked to increasing job stress and gradual burnout, according to recent studies. The lack of a supporting framework from school administration is a major contributor to the fact that their job is meaningless (Antoniou & Dalla, 2010)

Teachers' professional empowerment, or their capacity to participate in choices about school life and general educational policy, is crucial to their growth and progress (Bolin,1989).Teachers' job satisfaction, professional prestige, and self-efficiency are all improved when they are given more agency in the classroom through opportunities to make decisions, take on leadership roles, and have their talents put to good use

(Samara, 2015; Christou, 2010). There is a dearth of Greek literature on the topic, despite the fact that empowering teachers—the central pillar of educational change implementation—is a central challenge of educational reforms for school effectiveness and continuous improvement (Day, 2003; Papanou, 1995). Accordingly, this study aims to investigate how primary school educators feel about the six facets of professional empowerment (decision making, autonomy, professional growth, prestige-self-efficacy, self-efficacy, influence) proposed by Short and Rinehart (1992). It also aims to reveal the extent to which teachers feel empowered and to provide light on specific features of the school environment that either facilitate or obstruct this process.

### **1.1. Theoretical Framework of the Study**

Empowerment is a multifaceted notion, a network of ideas, acts, and practices, and a method of connection and activation all designed to help workers grow and flourish. Employee engagement, growth, motivation, and organizational commitment are all closely tied to empowerment (Bourandas, 2002, p. 497), as are the notions of assigning and delegating authority.

In the first place, it's a procedure that alludes to the decisions made by the company and the management in order to delegate tasks and increase employee engagement and productivity. It is also seen as a culmination of sorts, with respect to the consolidation of job-related behaviours and attitudes through the idea of work (Bourandas, 2002).

In this context, empowerment means providing teachers with avenues for autonomy, accountability, professional growth, and meaningful input into policy and practice (Short & Rinehart, 1993). Teachers who feel they have agency in their classrooms are more likely to enjoy their work, grow as individuals and professionals, collaborate with one another, and provide an environment where students feel safe to share ideas and opinions. To add to this, Hobbs and Morellad (2009, p. 1) state that “people who acquire knowledge, skills, and power necessary to influence their lives and the lives of the people they care about” are those who are empowered.

Furthermore, Hatzipanayiotou (2008) argues that empowering teachers is linked to the release of teachers' creative capacity, which in turn improves the efficiency of schools. Because “teachers are given the right to participate in the formulation of school goals and policies,” their “professional judgment on what and how to teach” is strengthened (Bolin, 1989, p. 82), this is seen as a worthwhile investment.

Empowerment is then seen as a mechanism of interaction and influence, as reported by Devos, Tuytens, and Hulpia (2014, p. 105). In such a setting, “leadership is distributed among all members of the leadership team and where teachers can participate in decision-making practices and processes,” they write. The school's position as a supervisor is diminished when a non-hierarchical network of equitable collaboration is formed as a result of delegated authority and increased student autonomy. According to Freire (2004), there is a nuanced understanding that empowerment does not provide authority but rather serves as potent means of influencing one's own growth and development. It is important to recognise the role that empowering teachers plays in empowering the school as a whole by fostering an environment conducive to collaboration, open dialogue, and the cultivation of students' independence, responsibility, and capacity for self-sufficiency (Avidoc-Ungar, Friedman, & Olsthain, 2014). Positive attitudes, professional satisfaction, and dedication to school organizations objectives are increased when instructors are motivated to collaborate and feel good about themselves (Bogler & Somech, 2004).

The teacher's ability to direct his or her own work and grow in expertise is proof that empowerment has been ingrained in the institutional culture of the school. Teachers Have Strong Feeling Of self-efficacy and

professionalism because they are given the freedom to make their own decisions and choices inside the classroom (Pan & Wang, 2002).

Teachers' empowerment is influenced not only by the demands of the external environment for better learning outcomes, but also by the aspirations of the teachers themselves to take a more active role in their students' education and professional development (Bolman & Deal, 2008). Principals and schools may foster a culture of trust and collaboration among staff members by distributing authority and providing opportunities for professional development and ongoing education (Fullan & Hargreaves, 1992).

However, there are challenges or impediments that make it hard for managers to empower educators and address issues including a tense environment, teacher burnout, unwillingness to engage in decision-making, and opposition to corporate change (Janssen, 2004). Empowerment attempts have also been hampered by the centralized structure of the education system (Passiardi, 2004; Koutouzis, 2008; Saitis, 2008) and the decreased autonomy of the school unit owing to the complexity of the principal's duties.

Wilson and Coolican's (1996) effort to classify teachers' sources of empowerment as external and internal power is interesting. The characteristics of empowered individuals—intrinsic motivation, efficacy, confidence, and determination—are complemented by external reinforcement, which takes the form of the provision of information and knowledge that contributes to professional development and performance improvement.

Lee and Nie (2014) "try to better record teachers' empowerment by classifying it into structural-social and psychological forms. Psychological approach relates to the concepts of meaning, self- efficiency, and autonomy as experienced by the teacher in the workplace, while structural empowerment refers to administrative practices of school leadership that favour teacher empowerment on the one hand and concession of strength and power along with the ability of participation in decision making on the other".

Both the structural-organizational and the psychological-emotional perspectives on teacher empowerment are necessary for a holistic understanding of the topic. This is due to the fact that despite the fact that teachers may work in a setting where they are objectively empowered, they may not experience such empowerment on a personal level (Gorezis, 2011). Furthermore, in a non-supportive school climate, instructors may have favorable subjective feelings of empowerment. This calls for an integrative strategy in which both forms of empowerment coexist. In this regard, short and Rinehart's suggested model of empowerment blends structural and psychological guidance into a unified and systematic strategy based on the following six basic tenets:

### **1.1.1. Participation in decision-making processes**

The extent to which educators are actively involved in making choices that impact their daily job and the school as a whole is what this dimension is measuring. The significant involvement of teachers in decision-making creates commitments to decision implementation and increased responsibility for correctness and justification of choices (Everard, & Morris, 1999).

### **1.1.2. Professional development**

Professional development refers to teachers' beliefs about the opportunities for professional and personal development offered by the school through processes of continuous learning, enrichment, nurturing and upgrading of knowledge and the development of new skills (Hickey & Harris, 2005). "Essentially it is a lifelong learning, the sum of formal, non-formal and informal learning experiences that take place throughout teachers' career" (Varsamidou & Rees, 2006). "The role of professional development is

considered crucial and has a significant impact on the remaining dimensions of empowerment” (Lichtenstein, Mc Laughlin, & Knudsen, 1992).

### **1.1.3. Prestige–professional respect (status)**

This dimension refers to the perception or feeling that teachers have of the respect, “acceptance and recognition they enjoy at a personal and professional level” (Short, 1994). “Status refers to the attention the teacher receives from those involved in the school community. Professional respect refers to the degree of prestige a teacher receives from recognizing his work” (Sawchuk, 2012).

### **1.1.4. Self-efficacy**

Teachers ‘self-efficacy is a system of teachers’ beliefs about their ability to promote student learning (Woolfolk & Spero, 2005). According to Bandura (1994), individuals with high self-efficacy have confidence in their abilities, face difficulties as challenges, do not give up, and have strong motivations.

### **1.1.5. Professional autonomy**

“Professional autonomy concerns their ability to control dimensions of their working lives and make decisions on strategic planning issues, curriculum, textbooks, teaching” (Short,1994). It is the rival concept of centralized state policy and is defined as the ability to participate in strategic “decision-making but also as the ability to self-identify the professional identity, self-efficacy and self- evaluation of educational work”(Matsagoura, 2004).

### **1.1.6. Influence on school life**

This “particular dimension of influence concerns teachers’ perceptions of the impact their work behavior has on school life and the educational work produced. It mainly refers to teachers’ perceptions regarding the resonance their ideas and suggestions receive and the recognition that their successful practices receive by those involved in the school community” (Ashton & Webb, 1986; Davidson & Dell, 2003).

## **1.2. Statement of the Problem**

The study is entitled as “**The Influence of Technology-Enhanced Professional Development on School Teacher Empowerment.**”

## **2. Review of Related Literature**

**Kilag, O. K., Miñoza, J., Comighud, E., Amontos, C., Damos, M., & Abendan, C. F. (2023).** “Empowering Teachers: Integrating Technology into Livelihood Education for a Digital Future. *Excellencia: International Multi-disciplinary Journal of Education*, 1(1), 30-41. The digital divide remains a significant challenge, with unequal access to technology and the internet hindering inclusive education. Recommendations for addressing this gap include collaborative efforts and inclusive initiatives to extend technology access to underserved communities. Furthermore, the study underscores the importance of balancing technological education with the development of essential soft skills to prepare students for the demands of an ever-changing job market”.

**Runge, I., Lazarides, R., Rubach, C., Richter, D., & Scheiter, K. (2023).** “Teacher-reported instructional quality in the context of technology-enhanced teaching: The role of teachers’ digital competence-related beliefs in empowering learners. *Computers & Education*, 198, 104761. The results supported the bi-factor confirmatory factor analysis model with a general factor defined as empowering learners as well as two sub dimensions representing differentiation and actively engaging learners. Teachers’ competence-related beliefs

regarding differentiation and empowering learners are positively related to the teacher-reported use of technologies to enhance instructional quality. Understanding the structure of teachers' competence-related beliefs about empowering learners and their relations to instructional quality in technology-enhanced teaching is relevant for teacher education to address learners' diverse learning needs, as well as to promote active and creative engagement”.

**Yunus, M., Sukarno, S., & Rosadi, K. I. (2021).** Teacher empowerment strategy in improving the quality of education. *International Journal of Social Science and Human Research*,4(1),32-36. The results showed that improving the quality of education requires appropriate teacher empowerment strategies. Empowerment strategies: inspiring teachers to empower themselves continuously through self-taught and independent efforts; encourage teacher participation in various educational and teaching activities; encouraging the growth of innovation among teachers, by providing flexibility for teachers to come up with ideas, approaches, methods or strategies; provide the widest possible access to information to teachers through information; encourage teachers to have high accountability.

**Mahruf C. Shohel, M., & Banks, F. (2012).** “School-based teachers’ professional development through technology-enhanced learning in Bangladesh. *Teacher Development*, 16(1), 25-42. This paper presents evidence to demonstrate how such school-based technology-enhanced support systems impact on classroom practice and help teachers’ professional development. Using the case of a pre-pilot intervention in the Underprivileged Children’s Educational Programs schools, it explores the teachers’ professional development by analysing interviews with the teachers who were participating in the pre-pilot intervention programme, and draws the conclusion from the collected data that school-based teachers’ professional development through technology-enhanced learning is contributing significantly to in-service training in a resource-constrained context”.

### **3. Methodology of Study**

#### **3.1. Research Aim**

The primary education teachers’ perspectives on the possibilities afforded to them in the classroom are the focus of this research. Consequently, the following research question is an attempt to be answered by the current study: How do the educators feel about these six aspects of empowerment: a) Participation in decision making b) Autonomy c) Professional Development d) Prestige - Professional respect e) Self efficacy f) Influence

#### **3.2. Research tool and sample**

The present study selected a quantitative methodology using a questionnaire on the grounds that quantitative sampling enables the collection of data from large population samples and is used to measure views and trends in education (Greswell, 2011).It also has short duration and minimal cost. The sampling method can be described as convenient or ‘convenience’ sampling, since the researcher targets individuals easily accessed (2008). Data were analyzed with SPSS 26.

#### **3.3. Data Tool**

“The questionnaire was electronically sent to 12 elementary schools of North Bengal and was forwarded through the principals of the respective schools 153 teachers. 124 questionnaires were completed and the percentage of respondents reached 81.04%. The questionnaire includes 31 closed-ended sentences using the 5-point Likert scale. Respondents were asked to choose between 1: strongly disagree, 2: rather disagree, 3: neither agree/ disagree, 4: rather agree, 5: strongly agree. It consists of two parts.

The first part deals with the demographic characteristics of the sample (gender, age, work experience, employment relationship, specialty, education), while the second part includes the Teacher Empowerment Scale” (School Participant Empowerment Scale-Short & Rinehart, 1992). The scale consists of 25 questions and relates to the six dimensions of teacher empowerment. The scale has been translated into Greek and adapted to correspond to the Greek educational reality. Prior to sending the questionnaire, 10 teachers were piloted to obtain the necessary feedback on the timing and clarity of the questions. Following The Necessary Corrections, which mainly included spelling, numbering errors and few wording questions, the Cronbach’s Alpha Reliability indices of the individual empowerment dimensions and the final questionnaire leadership models were formulated as follows: For the dimensions of professional empowerment of teachers: a) decision- making:  $\alpha = 0.725$ , b) autonomy:  $\alpha = 0.586$ , c) professional development:  $\alpha = 0.855$ , d) prestige - professional respect:  $\alpha = 0.554$ , e) self- efficiency:  $\alpha = 0.722$  and g) influence:  $\alpha = 0.723$ , which are considered satisfactory.

#### 4. Findings

The sample of our study consisted of 124 Primary Education Teachers of North Bengal, with the following characteristics.

Gender: 72 were women (58.1%), and 52 were men (41.9%). Age: Most (42) were 31-40 years old (33.9%), 34 were 41-50 years old (27.4%), 31 were at least 51 years old (25.0%), and 17 were up to 30 years (13.7%). Work experience: Most (54) had 6-15 years (43.5%), 32 had 16-25 years (25.8%), 23 had at least 26 years (18.5%), and 15 had up to 5 years (12.2%). Employment Relationship: 80 teachers were permanent (64.5%) and 44 were substitutes (35.5%). Specialty: 96 (77.4%) were teachers and 28 (22.6%) of other specialties. Level of study: 62 teachers had only a basic degree (50.0%), 45 postgraduate (36.3%), 10 had a post-secondary education degree (8.1%), 5 a second degree (4.0%) and 2 PhD (1.6%).

Concerning the dimension of participation in decision-making the average of the dimension was 3.96, the median was 4 and the standard deviation is 0.499, while the individual averages all statements were above 3.68, indicating a high degree of agreement in all statements of dimension. Also, the reliability of the dimensional statements was high (Cronbach’s  $\alpha = 0.725$ ).

All assertions in the following dimension of professional autonomy were in strong agreement, with individual averages above 3.72 and a standard deviation of 0.642. The overall average of the dimensions was 3.83, the median was 4, and the standard deviation was 0.642. The dimensional claims also had a reasonable level of dependability (Cronbach’s  $\alpha = 0.586$ ).

Overall, there was a moderate to high degree of agreement in all statements of the dimension of professional growth, with a standard deviation of 0.756, a median of 3.5, and individual means of all claims over 3.15. The dimensional assertions also have a good level of dependability (Cronbach’s  $\alpha = 0.855$ ).

The prestige-professional respect dimension had an average score of 3.83, a median score of 4, and a standard deviation of 0.671. Individuals’ average scores were higher than 3.65, suggesting a high level of agreement with all dimension assertions. With a Cronbach’s  $\alpha$  of 0.554, the dimensional claims also had a reasonable level of dependability.

With respect to the self-efficacy dimension, we find that there is a high degree of agreement in all assertions of dimension (individual means of all statements were above 3.47), a median of 3.8, and a standard deviation of 0.538. With a Cronbach’s  $\alpha$  of 0.722, the dimensional claims were also quite reliable.

As a conclusion, we can see that there is moderate to high agreement across all assertions of the impact dimension, with an overall mean of 3.66, a median of 3.67, and a standard deviation of 0.653. With a Cronbach's alpha of 0.723, the dimensional claims were also quite reliable.

Participants' medium to high level of agreement in all empowerment categories (where 3 = "Neither disagree /neither agree" and 4 = "I agree") is shown by the overall average of 3.75 and the individual averages of all dimensions being above 3.39. With a mean score of 3.96, decision making has the highest average, while professional growth has the lowest (mean score of 3.39).

## 5. Conclusion

Teachers' understanding that problems in the classroom are multi-faceted and need for thoughtful discussion and methodical consultation to find the best answers may explain why this aspect of decision-making is so crucial. Moreover, teachers' increased responsibilities with regard to the school unit's self-assessment process and the recent efforts by the teachers' association to establish itself as an elector in the head teacher selection process are likely to be associated with the rising interest in decision-making.

The total average of 3.39 for the empowerment component is lower than that of professional development, suggesting that instructors are distrustful of professional development chances. The teachers' club meetings should dedicate more time to sharing ideas, best practices, and reflective evaluations of the educational work done. They also think that teachers in the area should work together more in the classroom and with their neighbours.

## Reference:

- Antoniou, AS & Dallas, M. (2010). Professional exhaustion and satisfaction of the Greek primary and secondary education teachers (special and general education): A comparative study. In Ch. Karakioulafis & M. Spyridakis (Ed.), *Work and society* (pp. 365-399). Athens: Dionikos.
- Ashton, P.T & Webb, B.W. (1986). Making a difference: Teachers' sense of efficacy and student achievement. *New York: Longman*.
- Avidov-Ungar, O., Friedman, I. & Olshtain, E. (2014). Empowerment amongst teachers holding leadership positions. *Teachers and Teaching*, 20(6), 704-720. Doi: 10.1080/13540602.2014.88570.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachandran (Ed.), *Encyclopedia of human behavior* (4, pp. 71-81). *New York: Academy Press*.
- Bogler, R., & Somech, A. (2004). Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behavior in schools. *Teaching and Teacher Education*, 20, 277-289. Doi: 10.1016/.2004.02.003.
- Bolin, F.S. (1989). *Empowering Leadership. Teachers College Record*, 91,81-96.
- Bolman, L. G., & Deal, T.E. (2008). *Reframing organizations: Artistry, Choice and leadership*. San Francisco, CA: Jossey-Bass.
- Christou, E. (2010). *Leadership and Management in Education: Empirical Investigation in Cyprus School Units*. (Unpublished Master Thesis). Harokopio University, Athens.

- Cohen, L., Manion, L., & Morrison, K.(2008). Educational Research Methodology. Athens: Metaichmio.
- Creswell, J. (2011). Research in education: Design, conduct and evaluation of quantitative and qualitative research. Athens: Ion
- Davidson, B. M., & Dell, G. L. (2003, April).A school restructuring model: A toolkit for building teacher leadership. *Paper presented at the annual meeting of the American Educational Research Association, Chicago: IL.*
- Day, C. (2003). The evolution of teachers (ed.A.Vakali). The challenges of lifelong learning. Athens: Typothito.
- Acharya A., Samanta, A., Maity, A., Pal, D., Ghosh, A., Gupta, A., and Saha. R. 2024. Green Synthesis of Silver Nanoparticles from *Sarcochlamy Pulcherrima*: Enhanced Antimicrobial and Anti-biofilm Activity. *Proceedings of 2nd International Conference on Modern Tools and Approaches in the Emerging Field of Pharmaceutical and Biomedical Research* 20-22, Nov 2024. 17(1): pp 219.
- Biswas, S (2014), Role of ICT Improving the Quality of school Education in India, *Gurukul International Multidisciplinary Research Journal (GIMRJ)*, 1 (1), Pages: 168.
- Biswas, Dr. S, (2016), A Study on Probable Causes of Dropout and Retention of Tribal Children in Secondary Level, *International Journal of Trend in Scientific Research and Development – IJTSRD*, 1(1), 237-240.
- Khan,E.S, & Biswas, Dr. S, (2024), An Assessment on the Student’s Attitude towards ICT Integrated Learning at Higher Secondary Level, *International Journal of Humanities, Engineering, Science and Management (IJHESM)*, 5 (1), 38-44.
- Pal, D., Sinha, A., and Majumder, S. 2024. Groundwater Quality and its Effects on Human Health in Ranchi: A Study of Sources and Factors of Concern. *International Journal of Research Publication and Reviews*. 5(4): 427-430.
- Pandey, S., Ray, P., and Pal. D., 2023. Influence of Sustainable Biocoagulants *Trigonellafoenumgraecum* and *Moringaoleifera* for Improving Water Potability.
- Paul, B., Das, D., Aich T., and Pal, D. 2024. Plant Based Biocoagulants from *Cucurbita pepo* and *Cicer arietinum* for Improving Water Quality. *International Journal of Agriculture Environment & Biotechnology (IJAEB)*. 17 (1): 29-36.
- Sarkar, S. 2017. Characterization of pond water quality in the freshwater intensive culture of Indian Major Carps (IMC). *International Journal of Advanced Research and Development*. 2 (6): 262 – 268.
- Sarkar, S. 2018. Hourly Variations of Dissolved Oxygen in the Intensive Culture of Indian Major Carps. *Education Plus*. 8 (1): 210-216.
- Sarkar, S. and Mal, B. C. (2005). The Status of Aquaculture in India: Development, Adoption and Constraints. *Agricultural Engineering Today*. 29 (5): 46-52



**Citation:** Dey. C. & Biswas. Professor. (Dr.) S., (2024) “The Influence of Technology-Enhanced Professional Development on School Teacher Empowerment”, *Bharati International Journal of Multidisciplinary Research & Development (BIJMRD)*, Vol-2, Issue-11, December-2024.