

Factors Affecting Teachers' Participation in Professional Development Activities in Kathmandu Valley

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Abstract

In today's rapidly evolving world, continuous professional development is essential for teachers to enhance their knowledge, skills, and competencies, contributing to both their personal growth and the success of their institutions. However, various barriers often limit teachers' participation in professional development activities, preventing them from acquiring the competencies needed to meet changing educational demands. Therefore, this study aims to identify the factors that hinder teachers' involvement in professional development activities. This study used an explanatory research design and probability sampling. Data were gathered from 130 teachers at four different colleges. The data were analyzed using a method called Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings showed that personal factors, task factor, and work environment factor all have significant relationship with professional development activities. The biggest problems we faced were managing time well, not having enough resources, and being overworked. The respondents also revealed that these challenges can be addressed through effective time management, financial support from the college, and increased opportunities for professional development and training.

The motivation and support, encompassing financial assistance, technical resources, and human encouragement, emerge as critical factors for enhancing professional development. Organizations must prioritize providing the necessary motivation and support systems to empower teachers and foster continuous improvement in their professional development endeavors.

Keywords: Personal Factor, Task Factor and Work Environment Factor, Professional Development

1. Introduction

Professional development is a crucial aspect of teachers' careers that contributes to their effectiveness in the classroom (Nguyen, 2019). It involves continuous learning and skill-building to enhance their teaching practices, which, in turn, benefits their students' learning outcomes. Professional development is the process by which people's professionalism is improved, with a degree of permanence that exceeds short term (Popova et al., 2023). Teachers' professional development usually involves teachers learning, learning how to learn, and putting their knowledge into practice for the benefit of their students' growth (Drossel & Eickelmann, 2017). Due to the dominant sector focus on research excellence, professional development in teaching for academic staff has traditionally not been prioritized (Mulà et al., 2017). Professional development is critical for the growth and effectiveness of teachers in their roles (Romijn et al., 2021). However, various factors can hinder their professional development, leading to negative outcomes for both the teachers and the students they teach. Change is difficult for many people as this happens through active interaction with new ideas, understandings, and real-life experiences. This can be accomplished through active learning experiences (Krasnova & Shurygin, 2019).

One of the significant factors hindering the professional development of teachers is a lack of support. Teachers require support from their administrators and colleagues to improve their skills, knowledge, and practice. However, studies have found that teachers often feel unsupported in their professional development efforts, leading to low morale, burnout, and poor job satisfaction (Blase & Kirby, 2020). Limited access to professional development opportunities can also hinder the professional development of teachers (Lim, 2020). Studies have found that many teachers do not have access to relevant and high-quality professional development opportunities, or they do not have the time and resources to attend such events (Darling-Hammond et al., 2017). Teachers may also lack access to technology or materials needed to support their professional development.

Teachers often have demanding schedules, which may not allow them to dedicate enough time to professional development. Many teachers have to spend long hours in the classroom, leaving them with little time for personal and professional growth (Villegas-Reimers, 2017). Teachers may also have to juggle multiple responsibilities, such as grading, lesson planning, and meetings, which can further limit their time for professional development (Kee, 2021). Lack of funding is another factor that can hinder the professional development of teachers. Without adequate funding, schools may not be able to provide teachers with the necessary resources, technology, and training needed to support their professional development (Borko et al., 2015). Teachers may also have to pay out of their pockets for professional development opportunities, which can be a significant financial burden. Some teachers may resist change, hindering their professional development. Teachers may become complacent with their current practices and may resist adopting new teaching strategies or techniques. Resistance to change can limit the growth and development of teachers, leading to stagnation in their practice (Hargreaves, 2018). According to Ham and Dekkers (2019), in the Nepalese context, factors such as blaming culture, lack of clarity, lack of incentive, political instability, scarcity of resources, curriculum, and teacher supervision are barriers to professional development.

Schools and education leaders are under increasing pressure to provide high-quality education (Joshi et al., 2018). According to Bates et al. (2023) Professional development programs improve teacher knowledge and capacity. Professional development helps teachers to improve their quality in teaching, pedagogical skills and innovative in their subject (Padillo et al., 2021). The Nepal Planning Commission has identified education as one of the areas that must be improved in order to achieve sustainable development goals (Joshi et al., 2018). The United States demonstrates critical issues

concerning professional development accountability, engagement, relevancy, leadership, and the use of emerging online platforms and modalities (Pullen et al., 2020). 'Teachers' perceived powerlessness and absence of organizational guidance are the challenges for professional developments (Szelei et al., 2020). Regardless the benefits there are lots of challenges to implement and the teacher participation in professional development. Thus, this study finds the factors hindering the teachers' participation in professional development activities in Kathmandu Valley.

2. Literature Review

Global Practices of Professional Development

Professional development is a continuous process to increase professional skills and competencies, ensuring the growth of effective education. Different countries have different approaches for continuous professional development according to their local context such as traditions, cultural norms, policies and their school environment (Geldenhuis & Oosthuizen, 2015). In global context, some of the similarity can be found in the different countries such as in the European countries like France, Greece, Iceland, Denmark, Norway and Netherland continuous professional development is the professional obligation while participation is voluntary basic and not linked with the career advancement or financial incentives. Likewise, In South Africa, according to their rule teachers much acquire PD points to address their professional growth needs. Similarly, in context of United Nations, to fulfill the state laws and regulations educators are obliged to continue the development activities and to renew their license.

In context of Netherlands there is an association of teacher they called it as Velon, which organizes the conferences and provide the path to become a certified teacher, which helps the Dutch participant to develop them as a professional teacher. Likewise, In Japan, 4 out of 5 participants frequently involved in the school related professional development activities such as interview and observations and in this activities participant from other countries are more involved. In the Israel, participant involved in Mofet Institute, which specializes in teacher education research and program development.

According to Van der Klink et al. (2017), participants highlights time constraints due to the heavy workload were the driving factor hindering the teachers participation in many counties. In Turkey, teachers' express dissatisfaction with the quantity and quality of available professional development activities. They feel the connection to teaching practice is lacking, potentially affecting both teacher performance and student achievement negatively (Bellibas & Gumus, 2016).

Regional Practices of Professional Development

The current educational environment has many challenges to teachers and to enhance their quality education. The study by Spratt (2019), in United State, demonstrated that teachers feel structural issues like scheduling and the physical distance between classroom for collaborative work as well as the hierarchical mandates diverse the attention from potential growth of the teacher. Building a good relationship with students, colleagues could effectively respond to academic and social needs and they can also challenge themselves to the betterment. Sharing ideas and questions with colleagues and students is a pathway for towards their development. Similarly, traveling to new places can helped them to acquire the new experiences. Teachers development is aligning with the teacher's knowledge, beliefs, school culture and leadership. One-time workshop are unlikely to change the teachers learning and it should be sustained over time to learn, internalize and apply new instructional methods (Parsons et al., 2019). Similarly, in context of China, teacher's beliefs about the teaching thinks significantly

influenced their perceived professional development due to their dual role as both educators and learners. Moreover, increased understanding of teaching thinking led to higher perceived value, potentially reshaping their beliefs from professional development experiences.

Professional Development in Nepalese Context

The education regulation has made the National Center for Education Development (NCED) responsible for the professional development in education sector from the year 1993. NCED is established to provide the teacher professional development opportunity to all the government school teachers and it has provided 98.2% of permanent community teachers the training by the 2009. The 2009/2015 school sector reform plan made the government to be responsible for the teacher development, where teachers are required to acquire the training of 1 month of professional development at least once every 5 years. The NCED provides the four layer of training centers i) education training center, level A (ETC-A) ii) education training center, level-B iii) education training center, level-C and iv) resource center. These training centers provides the in service teachers training and the prescribed universities provide pre service training.

There are many challenges to acquire the professional development, according to the Qasr et al. (2018), lack of competent trainers, lack of materials, physical condition, lack of management tools are the factors hinders the professional development in some of the remote areas. Similarly, lack of conceptual clarity of teachers are other factor.

Theoretical Review

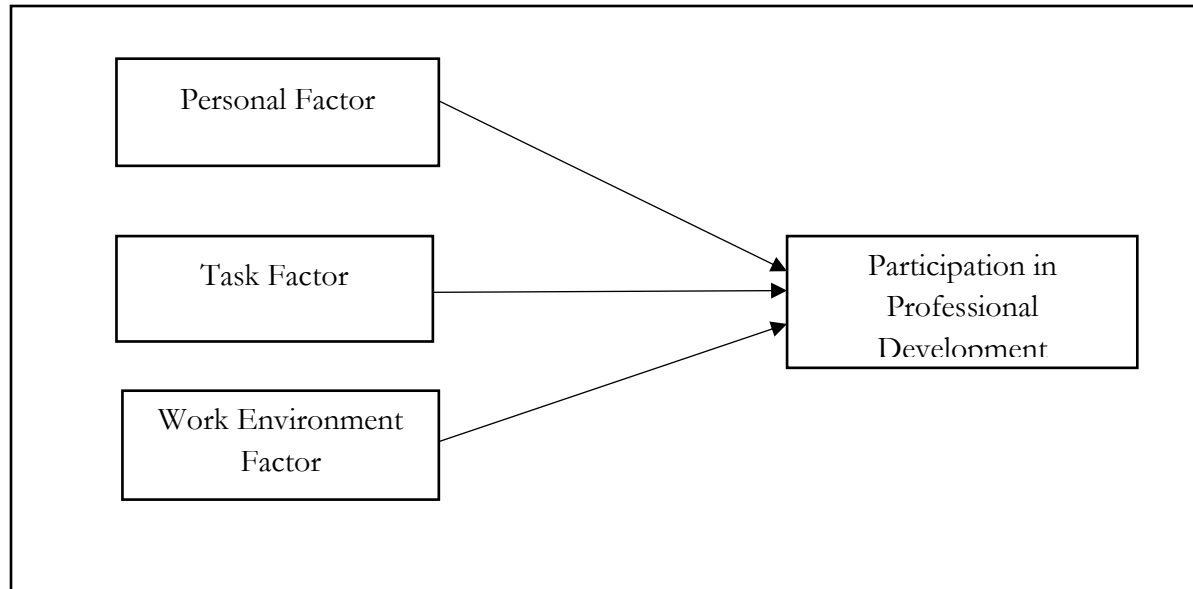
The study reviews different theories such as Self Determination Theory, Goal Setting Theory (Locke and Latham, 2015), Adult Learning Theory (Merriam, 2018), Constructivist Learning Theory (Hein, 1991), Theory of Change (Taplin et al., 2013). The Self-determination theory focuses on human motivation and personality which is the indicator of people growth and psychological needs (Deci et al., 2012). This theory focuses to understand what motivates people and how they fulfill their needs. It recommends that the three fundamental psychological needs drive them for motivation such as autonomy, competence and relatedness (Vansteenkiste et al., 2006). The goal setting theory state that the goal setting is directly linked with the task performance (Locke et al., 1981). The challenging goal with appropriate feedback contributes to better task performance (Latham & Locke, 991). The goal indicates and give direction to the employee to make the effort (Steers & Porter, 1974). As per the adult learning theory adult are always ready to learn and they directed towards growth and development, they prefer to learn practical skills that help them to solve problems (Merriam & Bierema, 2013). This theory also shows that adults are always motivated to learn and grow (Prakash et al., 2019). Wang et al. (2025) mentioned that the teacher's emphasis learning programs help to develop professional development. They need to collaborate with their colleagues in order to grow professionally. Similarly, the Constructivist leaning theory (Bada & Olusegun, 2015) demonstrate that the learners construct knowledge from their experience and reflection. The theory says that the learner constructs their knowledge through own understanding rather the receive information and with the active engagement of learner help them to explore, question and discover the new things (Fosnot, 2013). At last the theory of change describes that input, activities, output, outcomes and impact are interrelated to achieve the hope of the stakeholder (Taplin et al., 2013).

Among the several theory adult theories purposed by Bierema et al. (2025) is based suited this study as per this theory adult are always intent to learn and grow. The seminar, training programs help them to grow and make progress. In this study many conceptual frameworks are reviewed among them the

framework by Kwakman is adapted in this study as the factor affecting for the teachers' participation is suitable for the study.

The conceptual framework (see Figure 1) shows the three independent variables (personal factor, task factor and work environment) to know the factor affecting the teacher participation in professional development activity.

Figure 1: *Conceptual Framework*



Hypothesis Development

Personal Factor and Participation in Professional Development

Professional development activity involves the activity to make yourself to understand your job and improve in it (Verney & Curtis, 2026). The professional development activity enhances the necessary skills to perform the role effectively as possible (Gui et al., 2026). It is the acquisition of skills and knowledge for the career growth which develops the personal development (Orynbeikova et al., 2026). The professional development activity involves the vocational education/training and informal training and development programmes, which helps to enhance the skills. The personal factors can either facilitate or impede professional development (Kwakman, 2003). Emotional well-being, a positive attitude, belief in feasibility and meaningfulness, and a sense of personal accomplishment are all crucial elements that can drive or hinder an individual's career progress (Manuti et al., 2015). Managing and optimizing these factors can lead to more successful professional development (Kay & Karmowska, 2025). In this context, the relationship between personal factor and participation in professional development can be hypothesized as:

H₁: Personal factor has a positive relationship with participation with professional development.

Task Factor and Participation in Professional Development

The various task and responsibilities assigned to the individual within the workplace can have direct impact in their professional growth, their job satisfaction and professional development Evers et al. (2016). Task factors have the potential to hinder professional development by generating adverse working environments, emotional stress, restricted learning chances, diminished autonomy, and disengagement (Ghanizadeh et al., 2026). To foster ongoing growth and development within the workplace, it is essential for both individuals and organizations to acknowledge and tackle these barriers. Hence, there should be alignment of task that need to be fulfilled by the teachers and the involvement in the professional development activities.

H₂: Task factor has a positive relationship with participation in professional development.

Work Environment Factor and participation in Professional Development

A supportive work environment plays a pivotal role in facilitating conducive professional development (Rasool et al., 2025). It provides the necessary resources, guidance, and collaborative atmosphere that empower individuals to enhance their skills and advance in their careers (Abonyi et al., 2020). Due to the lack of clear direction and guidance from management hinders them to grow as well as lack of supportive training and fewer opportunities for learning and skill enhancement challenges them to professional development (Aryamol et al., 2026). Additionally, reward and limited sharing of knowledge from the colleagues to share their knowledge has direct impact in their professional development (Sincock et al., 2026). Thus, the relationship between work environment factor and participation in professional development can be hypothesized as:

H₃: Work Environment has a positive relationship with participation in professional development.

Variables and its Definition

Table 1: *Variables and its Definition*

Construct	Variable Notation	Description of the variables
Personal Factors	PF_1	I actively participate in professional development activities to enhance my skills.
	PF_2*	I actively seek out opportunities for professional development to enhance my skills.
	PF_3	The training and development programs offered by the organization contribute to my professional skills and knowledge.
	PF_4	I feel supported by my program head and colleagues in my pursuit of professional development.
	PF_5*	The Emotional attachment to the job does not affect my ability to focus and engage in professional development opportunities.

Task Factors	PF_6	I feel connected between my personal accomplishments and the professional development opportunities available to me.
	TF_1*	I did not find it challenging to allocate time for professional development due to the pressure of work.
	TF_2*	I did not find it challenging to balance emotional demands with the time needed for professional development activities.
	TF_3	I believe that a diverse range of job responsibilities enhances my opportunities for professional growth.
	TF_4	The level of autonomy I have in my job positively impacts my motivation to actively engage in professional development initiatives.
	TF_5	I feel motivated to participate in workshops and seminars aimed at enhancing professional skills.
Work Environment Factors	TF_6	The organization provides sufficient avenues for me to participate in relevant professional development activities.
	WE_1	My organization actively supports and encourages me to engage in professional development activities.
	WE_2	The management team recognizes the importance of continuous learning and skill development for my growth.
	WE_3	The Management team provides adequate resources and opportunities for me to pursue relevant professional development activities.
	WE_4	My colleagues actively support and encourage each other to engage in professional development activities.
	WE_5	Colleagues often share information about relevant workshops, conferences, or training opportunities.
Professional Development Activity (PDA) Factors	WE_6	The organization provides clear learning objectives professional development activities.
	PDA_1	Professional development activity helps me to share ideas about educational improvements.
	PDA_2	Professional development activity

	helps me to support colleagues in teaching problems.
PDA_3	Professional development activity helps me to read professional journals.
PDA_4	Professional development activity helps me to experience with new teaching methods.
PDA_5	Professional development activity helps me to construct and deliver lesson plans.
PDA_6	Professional development activity helps me to teach in new methods to the students.
PDA_7	Professional development activity helps me to adapt students centric methods.

3. Research Methods

Study Area and Population

The study area for this study is Kathmandu valley, Kathmandu Valley, the main educational hub of Nepal, in which there is high density of schools, teachers, universities, training centres and educational organizations, was chosen as the study area for this research. In the valley teachers have more opportunities to attend different professional development activities like workshops, seminars, training, and educational conferences organized by government, NGOs, and private organizations. Similarly, both public and private, and community schools, are also found in the valley, offering the opportunity to gather data from teachers of varying professional, socioeconomic and educational backgrounds. Teachers are more likely to have relevant experiences and perceptions on participation in professional development activities because the programs are more common in the valley than in many rural areas. Thus, the environment of Kathmandu Valley is suited and informative to explore the issues that influence the involvement of teachers in professional development activities. The population of the study consists of teachers from 8 private college teachers who have previously participated in professional development activities.

Sample Size Determination

For the data collection, sample size needs to be determined, and There are several techniques for calculating sample size. Based on consultations with the eight colleges, a total of 200 teachers were teaching, and for the population known the following formula is used to determine the sample size.. $n = \frac{N \cdot X}{(X + N - 1)}$, where, $X = \frac{Z_{\alpha/2} \cdot p \cdot (1-p)}{MOE}$, $Z_{\alpha/2}$ is the conventional distribution's critical value at $\alpha/2$ (e.g., with a confidence level of 95%, α is 0.05 and also the critical value is 1.96), MOE is the margin of error, p is the sample proportion and N is that the population size. A finite population correction has been applied to the sample size formula. $X = \frac{(1.96)^2 \cdot 0.5(1-0.5)}{(0.05)^2} = \frac{(3.8416 \cdot 0.25)}{0.0025} = 384.16 \approx 384$ Now, Sample size $(n) = \frac{N \cdot X}{(X + N - 1)} = \frac{200 \cdot 384}{(384 + 200 - 1)} = \frac{76800}{583} = 131.73 \sim 131$, We also add non-respondent error 5%, i.e., $131 \cdot 0.05 = 6.55 \sim 6$. Thus, the sample size taken for the study is $n = 131 + 6 = 137$.

Research Instrument and Data Collection

Structural questionnaire was used as the research instrument. Structured questionnaires are a quantitative research tool in which few researcher engagement and have a high number of respondents (the individuals who answer the questions) (Roopa, 2012).

A structure questionnaire has been developed to conduct a survey for collecting the primary data. The researcher has connected the questionnaire with the objectives made in the study. The study has used closed ended question to find the answer in a simple and understandable form. After formation of questionnaire research focused on the sequencing and arrangement of questionnaire. Kobo Toolbox is used for the data collection after the formation of structural questionnaire. In the Kobo Toolbox questionnaire will be inserted and a pilot testing is done for few samples questions to check the consistency and accuracy. 10 samples were used for pilot testing to know the consistency with the questionnaire used in the survey. For final data collection Kobo Toolbox is used because it is cost saving as data can be inserted through mobile device.

Data Analysis Techniques

The data analysis was conducted using descriptive analysis and inferential analysis, including structural equation modelling, to investigate relationships among latent constructs. The data analysis was performed using a combination of software tools including Kobo Toolbox, Excel, and Smart PLS. Microsoft Excel was used for data entry and tabulation, while the results of the statistical analysis were presented in tables and graphs provided below. The first section analyzes socio- demographic profiles, general understanding of the professional development activity, challenges faced by the teacher to take part in professional development activity and at last the managerial solution for such challenges. A selection of relevant descriptive and inferential analyses is discussed below.

4. Result of the Study

4.1 Socio-Demographic Characteristics of Respondents

The socio-demographic characteristics of the respondents were assessed to describe the composition of the study sample and provide contextual information regarding gender, age, educational attainment, teaching level, employment status, and teaching experience (Table 2). The sample comprised 130 teachers, with males representing 77.69% of the respondents and females accounting for 22.31%. The age distribution indicates that the majority of respondents were between 30 and 40 years of age (51.50%), followed by those below 30 years (24.60%) and those aged 40–50 years (23.08%). Only a small proportion (0.80%) were above 50 years, suggesting that the teaching workforce in the sampled institutions is predominantly composed of early- and mid-career professionals.

In terms of educational attainment, most respondents possessed a master's degree (80.00%), while 10.77% held MPhil qualifications and 3.08% had completed doctoral studies. Regarding teaching responsibilities, more than half of the respondents were engaged at the bachelor's level (53.85%), followed by the +2 level (35.38%). Furthermore, the majority were employed on a full-time basis (66.15%), while 31.54% served as part-time faculty members. Teaching experience was concentrated in the range of 3–10 years, with 25.38% reporting 3–5 years and 30.00% reporting 6–10 years of

experience. Overall, the sample reflects a relatively qualified and professionally active teaching population with substantial teaching experience.

Table 2: *Socio-Demographic Analysis*

Title	Category	Number	Percentage (%)
Gender	Male	101	77.69
	Female	29	22.31
	Others	0	0
Age	Below 30	32	24.6
	30-40	67	51.5
	40-50	30	23.08
	Above 50	1	0.8
Education Qualification	Bachelor	8	6.15
	Masters	104	80
	Mphil	14	10.77
	PhD	4	3.08
Current Level of Teaching	+2	46	35.38
	Bachelor	70	53.85
	Masters	11	8.46
	Above Masters	3	2.31
Job Category	Full Time	86	66.15
	Part Time	41	31.54
	Course Contract	3	2.31
Years of Teaching Experience	Less than 1 year	17	13.08
	1-2 Years	27	20.77
	3- 5 Years	33	25.38
	6-10 Years	39	30
	10-20 Years	13	10
	Above 20 Years	1	0.77

Source: Survey Data (2023)

4.2 Participation in Professional Development Activities

Participants reported on their participation in professional development events such as: nature, frequency, motivation, mode of participation. This reveals that a lot of engagement has occurred. All respondents reported attending at least one professional development activity, with the majority attending multiple activities. The most prevalent professional development activity was training programs (71.54%), followed by workshops (56.15%), conferences (43.85%), and seminars (40%). Participation in online learning was also significant, especially for the development of soft skills (32.31%) and technical skills (27.42%). With 27.69% of courses being hard-skill development courses, the relevance of digital learning becomes more and more apparent.

Regarding how often they participate, the majority of respondents indicated they participated professionally development activities occasionally (60%), while a small proportion said that they rarely or never do professional development activities (19%). This pattern indicates that professional

learning is Sustained engagement is limited and is not widely recognized by teachers. The result also revealed that about 2/3 of the respondents (33.08%) search professional development opportunities by themselves. Similarly, 57.69% said that college encourages to participate in Professional Development activities. The result reveals that Intrinsic motivation and organizational support are important in helping make it easier to engage in professional learning.

The study also identifies, principal motivation for participation was skill enhancement (78.46%) followed by professional networking (58.46%), knowledge exchange (56.92%), and career advancement (55.38%). These results indicate that the main perception of teachers about professional development is as a mechanism of: Building skilled capacity and developing job prospects. Furthermore, digital Some platforms like Coursera (47.69%), Udemy (33.85%) and university-led courses (34.62%) have Professional learning emerged as vital routes to learning and developing, suggesting a new form of flexible and technology-enabled learning modalities.

4.3 Challenges in Participating in Professional Development and Support Strategies

Respondents were asked if they faced difficulties when taking part in development activities. The results show that a large number of respondents 85.38% said they did face challenges that made it hard to take part in development. The biggest issue reported was the difficulty of balancing development with teaching duties. Other major barriers included workloads, not enough money to support their participation lack of technical tools, shortage of staff and other workplace limitations. These results show that someone engagement in professional development is not just about personal interest, It is also shaped by the conditions at their workplace and the structure of the organization.

To look for ways to fix these problems, respondents were asked if the barriers could be overcome through actions taken by institutions or managers. The results show that 93.85% believed the challenges could be reduced with organizational support (Figure 3). The effective solutions suggested were financial help setting aside time for professional learning and offering regular professional development programs. The feedback shows that organizations need to take responsibility by making a commitment, to supporting learning and growth. Without that support motivated individuals may struggle to take part in professional development.

Participants were also asked for suggestions on how teachers could be better supported to engage in professional development activities. The most common strategies that were suggested were time management support (37.50%) and institutional financial support (24.14%). In addition, 20.70% of the respondents mentioned the role of motivation and encouragement in encouraging participation. The results suggest that the factors that enable individual-level motivational mechanisms, institutional support, and sufficient resources will be required to improve the engagement of professional development.

Figure 3: Managerial Solution



In addition to professional development activities, respondents were asked what were the factors that were impeding their participation in research-related activities. From the results, it can be observed that there are several challenges that teachers have to face in engaging in research. Time constraints were determined as the most important constraint, followed by financial constraints, workload and lack of research resources and facilities. The results indicate that the current research engagement is still limited by the conflict of one's professional duties and lack of supporting structures within the institution. Overall, findings showed that teachers have expressed high interest in professional development and research but participation is limited due to resource, organizational and time-related issues. The results highlight the importance of implementing more comprehensive support structures in higher education institutions such as financial support, workload management, research support or systems, and special professional development time for teachers, to enhance the professional learning and scholarly engagement of teachers.

4.4 Inferential Analysis

Measurement Model

The measurement model was evaluated by examining indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. As shown in **Table 4**, all retained indicators exhibited satisfactory factor loadings ranging from 0.614 to 0.842, exceeding the recommended minimum threshold of 0.60. These results indicate that the observed variables adequately represent their respective latent constructs.

Table 4: Reliability and Validity

Coding	Latent Variables and Items	Loadings	AVE	CR	Cronbach's Alpha	VIF
PF	Personal Factor		0.512	0.807	0.68	1.522
PF_1	actively participate training and development	0.66				
PF_3	programs supported by my program	0.778				
PF_4	head and colleagues	0.691				

Coding	Latent Variables and Items	Loadings	AVE	CR	Cronbach's Alpha	VIF
PF_6	Feel a connection between personal achievements and professional growth	0.726	0.643	0.844	0.723	1.466
TF	Task Factor					
TF_3	diverse range of job responsibilities	0.812				
TF_4	Autonomy in my job boosts motivation	0.792	0.58	0.892	0.855	1.334
TF_5	Motivated for workshop to improve skills	0.802				
WF	Work Environment Factor					
WF_1	organization actively supports and encourages	0.76	0.608	0.915	0.89	
WF_2	Management values continuous learning.	0.827				
WF_3	Management offers ample resources and opportunities	0.733				
WF_4	Colleagues actively support professional growth	0.671	0.608	0.915	0.89	
WF_5	Colleagues share relevant development opportunities	0.814				
WF_6	Clear learning objectives for development activities provided	0.756				
PDA	Professional Development Activity		0.608	0.915	0.89	
PDA_1	Development activities foster educational idea sharing	0.807				
PDA_2	Development activities aid in supporting teaching colleagues	0.614				
PDA_3	encourage reading professional journals	0.689	0.608	0.915	0.89	
PDA_4	Helps in experience with new teaching methods	0.827				
PDA_5	construct and deliver lesson plans	0.831				
PDA_6	teach in new methods to the students	0.842	0.608	0.915	0.89	
PDA_7	adapt students centric methods.	0.819				

The convergent validity assessment also was satisfactory. The Average Variance Extracted (AVE) ranged from 0.512 to 0.643 which was higher than the recommendation of 0.50, which means that

each construct accounted for more than 50% of the variance in its indicators. In the same way, Composite Reliability (CR) values ranged from 0.807 to 0.915 (higher than 0.70) showing the good internal consistency of the measurement items. The reliability of the constructs was acceptable to high, with Cronbach's alpha ranging from 0.680 to 0.890. The Cronbach's alpha coefficient for Personal Factor (0.680) was lower than the general criterion value of 0.70 but it was within the acceptable range for exploratory research, especially considering its satisfactory CR and AVE values. The Variance Inflation Factor (VIF) was used to check for potential multicollinearity problems. All VIF values fell within the range of 1.334 to 1.522 which are much lower than the recommended value of 3.33. The results show there is no multicollinearity problem in the predictor constructs and that the data is appropriate for the estimation of the structural model.

Furthermore, the discriminant validity was analyzed through three complementary methods: The Fornell–Larcker criterion, Heterotrait–Monotrait Ratio (HTMT) and cross-loadings. In order to validate the discriminant function of the constructs, the Fornell-Larcker criterion was applied, which resulted in it also validating that adequate discriminant validity existed (Table 5). The square root of the AVE was greater than correlations with other constructs for each construct. In addition, the square root of the AVE for Professional Development Activity (0.780) was higher than the AVE correlations with the other factors: Personal Factor (0.619), Task Factor (0.489) and Work Environment Factor (0.579). Similar results were found with all constructs with each construct having more variance with its indicators than with other constructs. Second, the HTMT ratios in Table 6 varied between 0.518 and 0.785, which are all below the conservative threshold of 0.85 and liberal threshold of 0.90. The results of these analyses further support the empirical distinctiveness of the constructs and indicate that they assess different conceptual dimensions.

Table 5: *Discriminant Validity-Fornell and Larcker*

	PDF	PF	TF	WF
PDF	0.78			
PF	0.619		0.715	
TF	0.489		0.526	0.802
WF	0.579		0.454	0.419
				0.762

Table 6: *Heterotrait-Monotrait Ratio (HTMT)*

	PDF	PF	TF	WF
PDF				
PF	0.785			
TF	0.589	0.755		
WF	0.648	0.575	0.518	

Third, discriminant validity was confirmed in the cross-loading analysis. The internal consistency of the items on each measurement construct was greater than the items on all other constructs in the

model. The mean factor loadings of the primary loading and secondary loading were significantly different, suggesting that the indicators performed well in reflecting the latent variables of interest and in not overlapping with other competing constructs. The overall results of the Fornell-Larcker criterion, HTMT analysis, and the cross-loading assessment support the discriminant validity of the measurement model.

Structural Model

After performing the adequacy test of the measurement model, the structural model was tested to check if the hypothesized relationships among the constructs were supported. The model explained was evaluated by the coefficient of determination (R^2). The three exogenous constructs account for 50.9% of the variance in the Professional Development Activity ($R^2 = 0.509$) as shown in Figure 6. This threshold value reflects the moderate level of explanatory power, according to the convention, and indicates that the combination of the three factors, Personal Factor, Task Factor and Work Environment Factor, explains a moderate level of teachers' participation in professional development activities.

The significance of the hypothesized relationships was assessed using bootstrapping procedures. Table 8 shows that all three hypothesized relationships had significant statistical results. Professional Development Activity was significantly positively influenced by Personal Factor ($\beta = 0.389$, $t = 3.305$, $p = 0.001$) and this supported H1. The results of this study indicate that teachers with higher personal motivation, achievement orientation and opportunities for professional growth are more likely to participate in professional development.

Figure 6: Path Analysis

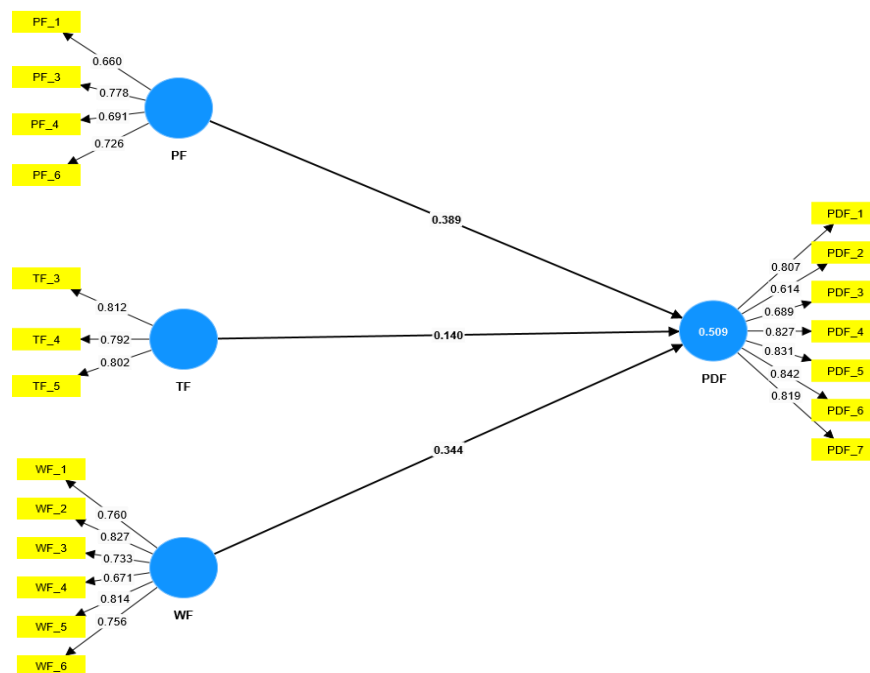


Table 8: *Test of Hypothesis*

Structural Path	Beta Coefficient (b)	SD	t-value	p-value	Confidence Interval (95%)		Conclusion
					LLCI	ULCI	
Personal Factor (PF) → Personal Development Activity (PDF)	0.389	0.118	3.305	0.001	0.153	0.612	Supported
Task Factor (TF) → Personal Development Activity (PDF)	0.14	0.064	2.174	0.03	0.015	0.269	Supported
Work Environment Factor (WF) → Personal Development Activity (PDF)	0.344	0.103	3.336	0.001	0.145	0.54	Supported

Additionally, Work Environment Factor had a significant positive effect on Professional Development Activity ($\beta = 0.344$, $t = 3.336$, $p = 0.001$) which supports H3. The outcome emphasizes the need for organizational support, learning culture, managerial encouragement, and collegial collaboration to encourage teachers' involvement in professional learning activities. Likewise, Task Factor was also shown to positively affect Professional Development Activity ($\beta = 0.140$, $t = 2.174$, $p = 0.030$), thus confirming H2. The effect of this was statistically significant but less pronounced than for Personal Factor or Work Environment Factor. The results of this finding show that the factors of job autonomy, skill diversification, and skill improvement opportunities have some impact on professional development participation, though less than the others.

The overall results show that the most significant factor affecting participation in Professional Development Activities is Personal Factor, followed by the Work Environment Factor and the Task Factor. All three of these constructs have positive and significant influences, which are reflected in the proposed research model and reinforce the multidimensionality of teachers' professional development engagement.

5. Discussion

The aim of this study was to analyze the factors influencing teachers' involvement in professional development activities in Kathmandu Valley including three important factors such as personal factor, task factor and work environment factor. The results indicate that each of the three variables has a significant positive relationship to participation in professional development activities, indicating that

teacher motivation, conditions of their jobs and institutional support combine to shape participation in professional development. The structural model was found to have moderate explanatory power with 50.9% of the variance of teachers' participation in professional development. These factors were found to be important in understanding teachers' behavior in professional development. The results show that personal factors have the highest impact on participating in professional development activities ($\beta = 0.389$, $p = 0.001$). The results showed that teachers who feel that professional development is meaningful, beneficial and relevant to their personal and professional aspirations will have the eagerness to engage in continuous learning. The findings support the propositions of Adult Learning Theory and Self-Determination Theory, which suggest that the factors of intrinsic motivation, self-improvement, and personal growth are important to drive adult learning behavior. It also confirms the results of Kwakman (2003) that found that teachers' professional attitudes, sense of accomplishment, perception of learning opportunities significantly affect their involvement in professional learning. Professional commitment and self-motivation are even more apparent in the context of the Kathmandu Valley where a majority of the respondents reported that they chose to join professional development programmes on their own.

The study also found that task factors were a significant positive influence on participation in professional development ($\beta = 0.140$, $p = 0.030$), but the influence of task factors was relatively low among the other factors. The result shows that autonomous, varied and decision-making opportunities promote teachers' professional learning. Teacher experiences of greater flexibility and empowerment in the role may lead them to feel that professional development is a worthwhile way to become more effective and overcome challenges in the workplace. This finding corroborates the findings of earlier research which has highlighted the importance of job characteristics in encouraging learning-related behaviours, Kwakman (2003) concluded that autonomy and participation in tasks are factors that provide environments conducive to professional learning. The relatively less impact of the task factor, on the other hand, suggests structural constraint like workload and competing tasks still play a role in limiting teachers' full participation in development activities, which is also evident in the descriptive findings in which the time management and work pressure emerged as the main constraints.

The participation in professional development activities (PDAs) is also significantly affected by work environment factors ($\beta = 0.344$, $p = 0.001$). The importance of organisational support, collegial collaboration and learning resources in professional development of teachers is important. Teachers are more likely to be motivated to participate in professional development activities when the school/college supports their lifelong learning, offers resources, and facilitates an environment that supports the professional culture. This finding aligns with the study of Noe and Wilk (1993), and later studies, which identified attitude and organizational climate and managerial support as significant factors for employee learning and development. This is especially germane to the context of Nepalese education, where teachers often complain of a lack of institutional support, limited resources, and opportunities for professional development. This conclusion is also supported by the descriptive results which revealed that financial support, time allocation and regular training opportunities are important managerial interventions that would improve participation in professional development activities. In addition to the structural relationships, information was gathered to describe teachers'

professional learning behavior. The findings indicate that most respondents engaged in various training programs, workshops, conferences, and online courses and learning platforms like Coursera and Udemy, demonstrating the increasing diversification of professional development opportunities. Teachers engaged with the program mainly for the purpose of skill development, building professional networks, and sharing of knowledge, reflecting a shift in professional development from a mandate to a career development tool to improve teaching. Overall results highlight the need for a multi-faceted approach to enhancing teacher involvement in teacher professional development. This said, although it is important to have individual motivation, the school should also consider workload pressure, availability of resources, and the formation of a conducive educational atmosphere. By reinforcing these aspects, a culture of lifelong learning among teachers can be promoted, which in turn can improve the quality of the teaching and learning process and educational results. The study contributes to the generalizability of Kwakman's framework in the sector of higher education in Nepal, and adds empirical evidence to those policymakers and educational leaders interested in building up effective teacher professional development systems in developing nations.

6. Conclusion

The purpose of this study was to find out the factors affecting teachers involvement in PD activities in Kathmandu Valley. The results show that teachers have a high level of participation in different professional development activities such as training programs, workshops, conferences, online courses and higher education programs. In spite of this engagement, there are a number of constraints that hinder teachers' engagement, including time constraints, workload pressures, lack of financial and technical resources, and lack of institutional support. The structural model shows that the personal factors, task factors and work environment factors have significant effects on participation in professional development activities. Of these, personal factors was the most significant factor, underscoring the need for individual motivation, perceived meaningfulness and dedication to professional development. Work environment factors also had a significant impact, which highlights the importance of organizational support, collegial cooperation and access to learning resources. While the effect of the task factors was comparatively smaller, it is still significant in determining the willingness and ability of teachers to engage in professional learning. The results indicate that a more systemic approach is needed to improve the participation of staff members in PD, encompassing the individual and organizational levels. Educational institutions must make the necessary financial and technical resources and reduce workload constraints, set aside time for professional learning, and create an environment where there is an appreciation for ongoing professional growth. The enhancement of these enabling conditions can not only help to improve teachers' professional skills but can motivate teachers to lifelong learning and ultimately lead to better education. The study adds to the literature by offering empirical evidence from Nepal and corroborate the significance of personal, task-related, and environmental factors in explaining teachers' involvement in professional development activities. The work can be expanded in future by involving teachers from different parts of the country, also analyzing the difference in the effectiveness of the teachers of public and private institutions, and by studying the impact of participation in professional development courses on the learning outcomes of students and teachers.

References

- Abonyi, U. K., Yeboah, R., & Luguterah, A. W. (2020). Exploring work environment factors influencing the application of teacher professional development in Ghanaian basic schools. *Cogent Social Sciences*, 6(1), Article 1778915. <https://doi.org/10.1080/23311886.2020.1778915>
- Adom, D., Hussain, E. K., & Joe, A. A. (2018). Theoretical and conceptual framework : mandatory ingredients. *International Journal of Scientific Research*, 7(1), 93–98.
- Aryamol, K. B., Sasikumar, J., & John, A. (2026). Language teachers in the digital age: The Relevance of Institutional Support and Professional Development. In *Transforming Language Education* (pp. 269-298). CRC Press.
- Bada, S. O., & Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research & Method in Education*, 5(6), 66-70.
- Baskerville, R., & Pries-Heje, J. (2010). Explanatory design theory. *Business & Information Systems Engineering*, 2(5), 271-282.
- Bellibas, M. S., & Gumus, E. (2016). Teachers' perceptions of the quantity and quality of professional development activities in Turkey. *Cogent Education*, 3(1), 1-16. <https://doi.org/10.1080/2331186X.2016.1172950>
- Bryman, A. (2003). *Research methods and organization studies*. Routledge.
- Bugti, S. M., Umair, M., & Basharat, R. (2021). Factors influencing continuous professional development of teacher at University level. *Sukkur IBA Journal of Educational Sciences and Technologies*, 1(1), 36–46. <https://doi.org/10.30537/sjest.v1i1.664>
- CBS. (2021). *National Population and Housing Census 2021*. Retrived from <https://censusnepal.cbs.gov.np/results>
- Christofi, M., Vrontis, D., & Cadogan, J. W. (2021). Micro-foundational ambidexterity and multinational enterprises: A systematic review and a conceptual framework. *International Business Review*, 30(1), 10-62. <https://doi.org/10.1016/j.ibusrev.2019.101625>
- Cuesta-Valiño, P., Rodríguez, P. G., & Núñez-Barriopedro, E. (2019). The impact of corporate social responsibility on customer loyalty in hypermarkets: A new socially responsible strategy. *Corporate Social Responsibility and Environmental Management*, 26(4), 761–769. <https://doi.org/10.1002/csr.1718>
- Denney, A. S., & Tewksbury, R. (2013). How to write a literature review. *Journal of Criminal Justice Education*, 24(2), 218–234. <https://doi.org/10.1080/10511253.2012.730617>
- Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. *The Oxford handbook of human motivation*, 18(6), 85-107.
- Devkota, N. (2020). *Research Methodology*. Advance Saraswati Prakasan.
- Evers, A. T., Kreijns, K., & Van der Heijden, B. I. J. M. (2016). The design and validation of an instrument to measure teachers' professional development at work. *Studies in Continuing Education*, 38(2), 162–178. <https://doi.org/10.1080/0158037X.2015.1055465>
- Fosnot, C. T. (2013). *Constructivism: Theory, perspectives, and practice*. Teachers College Press.
- Geldenhuijs, J. L., & Oosthuizen, L. C. (2015). Challenges in fluencing teachers ' involvement in continuous professional development : A South African perspective. *Teaching and Teacher Education*, 51, 203–212. <https://doi.org/10.1016/j.tate.2015.06.010>
- Grant & Osanloo. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: creating the blueprint for your “house.” *Administrative Issues Journal Education Practice and Research*, 4(2), 12–26. <https://doi.org/10.5929/2014.4.2.9>
- Gui, Q., Omar, M. K., & Harithuddin, A. S. M. (2026). Teachers' professional development on self-efficacy, attitudes, and digital competencies in the digital era. *Acta Psychologica*, 265, 106683.

- Hein, G. E. (1991). Constructivist learning theory. *Institute for Inquiry*, 14(2), 3.
- Kay, S., & Karmowska, J. (2025). Personal factors in the career development of early career researchers in Kenya and implications for models of mentoring practice. *Higher Education*, 90, 1105–1122. <https://doi.org/10.1007/s10734-024-01368-x>
- Kivunja, C. (2018). Distinguishing between theory, theoretical framework, and conceptual framework: A systematic review of lessons from the field. *International Journal of Higher Education*, 7(6), 44–53. <https://doi.org/10.5430/ijhe.v7n6p44>
- Kline, RB. 2011. *Principles and Practice of Structural Equation Modeling*. The Guilford Press.
- Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. *Teaching and Teacher Education*, 19(2), 149–170. [https://doi.org/10.1016/S0742-051X\(02\)00101-4](https://doi.org/10.1016/S0742-051X(02)00101-4)
- Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. *Organizational behavior and human decision processes*, 50(2), 212-247.
- Lim, W. M., Kumar, S., & Ali, F. (2022). Advancing knowledge through literature reviews: 'what', 'why', and 'how to contribute'. *The Service Industries Journal*, 42(7-8), 481-513.
- Locke, E., & Latham, G. (2015). Goal-setting theory. *Organizational behavior*, 1(1), 159-183.
- Manuti, A., Pastore, S., Scardigno, A. F., Giancaspro, M. L., & Morciano, D. (2015). Formal and informal learning in the workplace: A research review. *International Journal of Training and Development*, 19(1), 1–17. <https://doi.org/10.1111/ijtd.12044>
- Merriam, S. B. (2018). Adult learning theory. *Contemporary theories of learning: Learning theorists... in their own words*, 83-96.
- Locke, E. A., Shaw, K. N., Saari, L. M., & Latham, G. P. (1981). Goal setting and task performance: 1969–1980. *Psychological bulletin*, 90(1), 125
- Merriam, S. B., & Bierema, L. L. (2013). *Adult learning: Linking theory and practice*. John Wiley & Sons.
- Lunenburg, F. C. (2011). *Goal-Setting Theory of Motivation*. 15(1), 1–6.
- Orynbekova, A. S., Menlibekova, G. Z., Amanova, A. K., & Sarmurzin, Y. Z. (2026). Modern requirements for the professional activity and competence of a social teacher. *International Journal of Educational Reform*, 35(3), 1164-1178
- Parsons, S. A., Hutchison, A. C., Hall, L. A., Parsons, A. W., Ives, S. T., & Leggett, A. B. (2019). U.S. teachers' perceptions of online professional development. *Teaching and Teacher Education*, 82, 33–42. <https://doi.org/10.1016/j.tate.2019.03.006>
- Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717. <https://doi.org/10.1016/j.ibusrev.2020.101717>
- Prakash, R., Sharma, N., & Advani, U. (2019). Learning process and how adults learn. *International Journal of Academic Medicine*, 5(1), 75-79
- Qasr, U., Al-zubair, K., Gulf, A., Al-zubair, K., & Qasr, U. (2018). *Chapter one Chapter one. Sen*, 1–20.
- Reio, T., & Ghosh, R. (2009). Antecedents and outcomes of workplace incivility. *Computational Complexity*, 2(1), 1–9. <https://doi.org/10.1002/hrdq>
- Rasool, S. F., Mohelska, H., Rehman, F. U., Raza, H., & Asghar, M. Z. (2025). Exploring the Nexus Between a Supportive Workplace Environment, Employee Engagement, and Employee Performance in the Kingdom of Saudi Arabia. *Administrative Sciences*, 15(6), 230. <https://doi.org/10.3390/admsci15060230>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61(40), 101-860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Taplin, D. H., Clark, H., Collins, E., & Colby, D. C. (2013). Theory of change. *Technical papers: a series of papers to support development of theories of change based on practice in the field*. ActKnowledge, New York,

NY, USA.

- Shabbir, M. S., Shariff, M. N. M., Bin Yusof, M. S., Salman, R., & Hafeez, S. (2018). Corporate social responsibility and customer loyalty in Islamic banks of Pakistan: A mediating role of brand image. *Academy of Accounting and Financial Studies Journal*, 22.
- Singh &, & Misra. (2021). Linking corporate social responsibility (csr) and organizational performance: the moderating effect of corporate reputation. *European Research on Management and Business Economics*, 27(1), 100139. <https://doi.org/10.1016/j.iedeen.2020.100139>
- Sincock, K., Patfield, S., Gore, J., & Miller, D. (2026). Bolstering teacher retention through collaborative professional development. *Professional development in education*, 1-22.
- Sprott, R. A. (2019). Factors that foster and deter advanced teachers' professional development. *Teaching and Teacher Education*, 77, 321–331. <https://doi.org/10.1016/j.tate.2018.11.001>
- Steers, R. M., & Porter, L. W. (1974). The role of task-goal attributes in employee performance. *Psychological bulletin*, 81(7), 434.
- Strang, A. (2008). *Understanding Integration : A Conceptual Framework Understanding Integration : A Conceptual Framework*. March 2015. <https://doi.org/10.1093/jrs/fen016>
- Van der Klink, M., Kools, Q., Avissar, G., White, S., & Sakata, T. (2017). Professional development of teacher educators: what do they do? Findings from an explorative international study. *Professional Development in Education*, 43(2), 163–178. <https://doi.org/10.1080/19415257.2015.1114506>
- Verney, C., & Curtis, H. (2026). Conceptualising professional services researchers as a sustainable career development route in higher education. *Journal of Higher Education Policy and Management*, 48(2-3), 309-324.
- Vansteenkiste, M., Ryan, R. M., & Deci, E. L. (2006). Self-determination theory and the explanatory role of psychological needs in human well-being.
- Wan, S. W.-Y., & Lam, P. H.-C. (2010). Factors affecting teachers' participation in continuing professional development (CPD): From Hong Kong primary school teachers' perspectives. *The 2010 AERA Annual Meeting "Understanding Complex Ecologies in a Changing World,"* 26. <https://eric.ed.gov/?id=ED509923>
- Wang, X., Niu, J., Fang, B., Han, G., & He, J. (2025). Empowering teachers' professional development with LLMs: An empirical study of developing teachers' competency for instructional design in blended learning. *Teaching and Teacher Education*, 165, 105091.
- Zhang, Q., & Zhang, F. (2019). *Effects of corporate social responsibility on customer satisfaction and organizational attractiveness : A signaling perspective*. January 2021.