

THE RELATIONSHIP BETWEEN PERCEIVED PERSONAL LEARNING NETWORK (PLN) ENGAGEMENT AND SELF-REPORTED JOB PERFORMANCE (JP) AMONG SELECTED PHILIPPINE PUBLIC SECTOR EMPLOYEES

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ABSTRACT

This study examined the relationship between perceived Personal Learning Network (PLN) engagement and self-reported job performance among selected Philippine public sector employees. Grounded in Connectivism Learning Theory and Campbell's theory of job performance, it explored how networked learning relates to professional growth and self-reported work performance in the public sector. Using a quantitative–correlational design, data were gathered from 200 employees across eight selected public-sector organizations through a validated researcher-made questionnaire. Descriptive statistics and appropriate nonparametric analyses, including Spearman's rho correlation and multiple linear regression, were applied to determine patterns, differences, relationships, and predictive associations between the variables. Findings revealed that respondents demonstrated high levels of perceived PLN engagement and consistently high self-reported job performance. No significant differences in engagement or performance were observed when grouped according to sex, age, educational attainment, and job position. Results further indicated a strong, statistically significant positive association between perceived PLN engagement and self-reported job performance. Multiple linear regression analysis also showed that perceived PLN engagement significantly predicted job performance even when selected demographic variables were considered, while age, sex, educational attainment, and job position were not statistically significant predictors. The study concludes that PLNs are relevant mechanisms for continuous learning in the public sector and that higher perceived PLN engagement is associated with higher self-reported job performance. However, the findings should be interpreted with caution because both variables were measured using self-reported data, which may be influenced by common method bias, and the consistently high job performance ratings may indicate a possible ceiling effect. The study recommends strengthening institutional support, fostering individual empowerment, and implementing continuous evaluation mechanisms to embed PLN-based learning within government training and development systems.

Keywords: *Personal Learning Network, job performance, connectivism, public sector, professional learning, civil servants*

INTRODUCTION

The modern workplace is marked by rapid technological advancements and evolving job demands, which necessitate continuous professional learning and adaptability. Traditional training methods, often constrained by formal and hierarchical structures, struggle to address the dynamic and self-directed learning needs of employees (Sharma, 2021; Mohammed et al., 2022). This is particularly evident in the public sector, where resource limitations and rigid institutional frameworks can hinder access to timely and relevant training opportunities (Romero-Hall, 2021). Against this backdrop, Personal Learning Networks (PLNs) have emerged as innovative platforms for fostering informal, collaborative, and lifelong learning, offering significant potential to enhance job performance and professional growth (Oddone, 2023; Mukhlis et al., 2024).

PLNs are defined as decentralized networks that enable individuals to connect with diverse resources, tools, and peers, facilitating continuous knowledge sharing and professional development (Voskoglou, 2022; Brown, 2023). Rooted in the principles of connectivism, PLNs empower learners to navigate complex information networks autonomously, fostering critical thinking, collaboration, and adaptability (Mukhlis et al., 2024). Research has shown that PLNs bridge gaps left by traditional training programs by providing access to up-to-date knowledge and diverse perspectives, which are essential for addressing real-world challenges in professional contexts (Oddone, 2023).

In the context of the public sector, PLNs offer a unique opportunity to enhance job performance by supporting self-directed learning, enabling employees to access knowledge relevant to their roles, and fostering a culture of collaboration (Abedini et al., 2021). However, barriers such as digital divides, resistance to informal learning practices, and lack of institutional support remain significant challenges to their widespread adoption (Romero-Hall, 2021). Addressing these challenges requires an understanding of the factors influencing PLN engagement and their impact on professional performance.

This study aims to explore the relationship between engagement in PLNs and job performance among government employees in the Philippines. By examining the frequency and variety of PLN activities and their alignment with organizational objectives, this research seeks to provide insights into how PLNs can be effectively integrated into public sector professional development frameworks.

In doing so, this study contributes to the growing body of knowledge on PLNs as tools for fostering informal learning and professional growth in the digital age. It emphasizes the need for public sector organizations to adopt flexible and innovative approaches to training and development, aligning with global trends in lifelong learning and networked knowledge sharing (Oddone, 2023; Mukhlis et al., 2024).

Background Of The Study

The rapid evolution of workplace demands has prompted organizations to reconsider approaches to learning and professional development. Globally, governments and private institutions increasingly utilize digital technologies and informal learning

mechanisms to address skills gaps and support continuous learning. In this context, Personal Learning Networks (PLNs) have emerged as flexible learning approaches that enable individuals to connect with peers, mentors, and information sources through digital platforms. Despite this potential, the use of PLNs in the public sector, particularly in developing countries such as the Philippines, remains limited.

In the Philippine public sector, traditional training programs continue to face challenges in addressing the diverse and evolving needs of government employees. These programs are often resource-intensive, time-bound, and structured in ways that may limit accessibility and participation. In response, government initiatives such as Civil Service Commission (CSC) Memorandum Circular No. 3, s. 2021 promote the use of digital technologies to support learning and development. However, participation in informal and network-based learning activities remains uneven, suggesting the need for approaches that can support sustained engagement in these learning environments.

Data from the Development Academy of the Philippines further illustrates this pattern. During an online knowledge-sharing session in May 2024, an invitation email was sent to 29,302 subscribers, primarily composed of personnel from National Government Agencies (NGAs), Local Government Units (LGUs), Government-Owned and Controlled Corporations (GOCCs), and State Universities and Colleges (SUCs). While the email recorded an open rate of 33.7% (9,766 opened), the click rate was only 1.7% (487 clicked), indicating limited participation in the activity (Mailchimp report, personal communication, December 2024). This suggests that engagement in network-based learning opportunities within the public sector remains relatively low.

Similarly, the implementation of Communities of Practice (CoPs) in the Philippine public sector has shown limited participation. Based on the researcher's involvement in a productivity-focused CoP initiative, participation levels were observed to be low, indicating that awareness and engagement in collaborative learning platforms may be limited among government employees. These observations highlight the need to better understand how learning networks can be utilized within the public sector context.

PLNs have been described as mechanisms that support self-directed and flexible learning through access to diverse resources and networks (Voskoglou, 2022). Grounded in connectivism, PLNs emphasize learning as a process of building and navigating connections among people, tools, and information (Mukhlis et al., 2024). Compared to traditional training approaches, PLNs provide opportunities for continuous and individualized learning experiences (Oddone, 2023). Previous studies have also examined the potential of PLNs in supporting professional learning and knowledge sharing across contexts (Trust et al., 2016). However, these studies have primarily focused on specific sectors, particularly education, and limited research has examined PLN engagement in relation to job performance in the Philippine public sector.

Given this context, this study examines the relationship between perceived Personal Learning Network (PLN) engagement and self-reported job performance among selected Philippine public sector employees. By focusing on the association between these variables, the study aims to contribute to a better understanding of how network-based learning practices are reflected in employees' perceptions of their work performance. The findings are expected to provide insights that may inform the development of learning and development approaches within the public sector.

Personal Learning Networks (PLNs): Foundations And Applications

In today's knowledge-driven environment, learning is increasingly viewed as a connected, continuous, and technology-mediated process. PLNs embody this shift by enabling individuals to access, share, and create knowledge through digital interactions that extend beyond traditional institutional boundaries.

Grounded in the principles of connectivism, PLNs position learning as the ability to form and sustain networks that link people, information, and digital tools. Siemens (2004) explains that knowledge no longer resides solely within an individual but across a distributed network of connections, and learning entails identifying and nurturing these links. Building on this view, PLNs serve as living ecosystems where learners interact with peers, experts, and resources to meet evolving professional needs.

Recent scholarship further emphasizes that professional learning within networks is fundamentally relational. Pedersen et al. (2023) argue that how individuals learn through relationships lies at the core of professional learning networks. Drawing on social network theory, they identify boundedness, connectedness, and mutuality as critical dimensions shaping how knowledge flows within networks. Boundedness defines the scope of participation, connectedness reflects the degree of access among actors, and mutuality captures the reciprocity embedded in professional exchanges. These dimensions underscore that the effectiveness of PLNs depends not only on digital access but also on the quality and reciprocity of relationships that sustain collaborative learning.

In practice, these networks are supported by a wide array of online environments that merge structured and informal learning. Abedini et al. (2021) observed that massive open online courses (MOOCs) complement the self-directed nature of PLNs by allowing learners to pursue individualized goals while engaging in collaborative exchanges. Similarly, Al-Sabaawi et al. (2021) demonstrated how social platforms such as LinkedIn and Facebook foster professional interaction and peer learning, illustrating the social dimension of PLNs. Beyond mere connectivity, PLNs promote reflective inquiry by encouraging learners to assess, adapt, and refine their professional practices through ongoing dialogue and feedback (Warmoes et al., 2025). Collectively, these studies portray PLNs as adaptive systems that integrate personal agency, digital affordances, and collective intelligence.

Taken together, the literature conceptualizes PLNs as both a theoretical and practical framework for lifelong learning. They operationalize the core tenets of connectivism by enabling professionals to learn with and from their networks while emphasizing the relational conditions that sustain knowledge exchange. For public-sector employees, whose formal training opportunities are often constrained by bureaucratic and resource limitations, PLNs present a viable mechanism for sustaining continuous learning, collaboration, and performance improvement through structured yet flexible professional networks.

Self-Directed Learning (SDL) And Its Role In Professional Growth

As work environments continue to change rapidly, professionals are now expected to take greater responsibility for their own learning. The ability to plan, manage, and evaluate one's development has become essential for continuous growth, especially in workplaces where formal training opportunities are limited or infrequent.

Morris (2024) describes self-directed learning (SDL) as a meta-competence made up of four dimensions: self-management, self-monitoring, motivation, and self-modification. These dimensions help individuals remain adaptable and capable of regulating their learning in complex work settings. Building on this view, Geng et al. (2019) observed that learners' readiness to use technology strongly influences their ability to engage in SDL. When people are confident with digital tools, they are more likely to explore new resources, evaluate information critically, and apply what they learn to their jobs.

Recent empirical evidence further demonstrates the role of digital platforms in strengthening self-directed learning within organizational contexts. Ferdianto and Anindita (2023) examined the implementation of massive open online courses (MOOCs) as mechanisms for reinforcing learning organizations and found that self-management, self-monitoring, and intrinsic motivation significantly influence sustained engagement in digital learning environments. Their study suggests that learners who actively regulate their goals and monitor their progress are more likely to translate online learning experiences into broader organizational development. These findings reinforce the view that technology-enabled environments can cultivate structured self-regulation practices that support continuous professional growth.

In recent years, digital platforms have expanded the ways in which SDL can occur. Al-Sabaawi et al. (2021) found that professionals often rely on social media for informal, self-initiated learning. Their study showed that digital literacy and self-efficacy are crucial for meaningful engagement, while peer interaction and motivation sustain participation. Similarly, Lin (2024) found that emerging tools such as conversational artificial intelligence help learners set goals, seek feedback, and stay focused. This shows that technology can support, rather than replace, learner autonomy. Taken together, these studies emphasize that self-directed learning is both an individual and a social process. It depends on personal initiative and grows in digitally connected environments that provide opportunities for guidance, collaboration, and reflection.

Overall, the reviewed literature presents SDL as the behavioral foundation of lifelong learning and a necessary skill for professional advancement. When combined with digital competence, self-directed learning enables employees to respond effectively to workplace changes and to transform online interactions into opportunities for growth. For public-sector employees, developing SDL habits strengthens their ability to learn continuously, share knowledge through personal learning networks (PLNs), and ultimately enhance their job performance despite organizational or resource constraints.

Job Performance And Training In The Public Sector

In the public sector, job performance serves not only as a measure of individual achievement but also as an indicator of organizational effectiveness. Because government agencies operate in complex and rapidly changing environments, training and professional development are vital for ensuring that employees remain competent, motivated, and aligned with institutional goals.

Recent international policy analysis reinforces this perspective. The OECD (2023) highlights that modern civil services must transition toward capability-based management systems that prioritize continuous learning, digital skills development, and adaptive performance frameworks. The report emphasizes that public employment systems

increasingly recognize learning as a strategic function rather than a peripheral activity. In this view, sustained job performance depends not only on compliance with performance indicators but also on employees' ability to upgrade competencies in response to technological change and evolving citizen expectations.

Public-sector job performance is structured through formal systems that link individual outputs to organizational outcomes. In the Philippines, the Strategic Performance Management System (SPMS) and the Individual Performance Commitment and Review (IPCR) serve as key mechanisms for evaluating employee performance. These frameworks emphasize transparency, accountability, and continuous development, ensuring that individual accomplishments contribute to agency-level objectives (Civil Service Commission [CSC], 2023).

At the national level, the Civil Service Commission (2023) underscores the role of learning and development initiatives in strengthening the implementation of the Strategic Performance Management System (SPMS). The Commission emphasizes that competency-based training, digital upskilling, and structured performance feedback mechanisms are integral to enhancing employee productivity and accountability. These initiatives reflect a broader institutional effort to align professional development programs with measurable performance outcomes across government agencies.

Recent research underscores that performance improvement is closely tied to the quality and accessibility of training and learning opportunities. Vermeeren and Van der Heijden (2022) argue that employability and sustained performance in government organizations depend on the interplay between individual initiative and institutional support. Employees who are encouraged to pursue continuous learning and skill development tend to demonstrate higher adaptability and commitment to organizational goals. Complementing this view, van der Kolk (2022) observed that modern public-sector performance measurement systems increasingly integrate learning functions rather than focus solely on control or compliance. When performance management emphasizes reflection and development, employees are more likely to engage in innovative behavior and knowledge sharing.

Training in digital skills has become an important factor in improving public-sector performance. Lopes et al. (2023) found that when civil servants are equipped with digital competencies, they work more efficiently and gain greater confidence in using new technologies and managing work processes. These efforts reflect the growing move toward hybrid and networked learning, where formal training is supported by self-directed and collaborative learning through professional networks. This trend underscores the value of integrating PLNs into existing training and performance systems to promote continuous professional growth.

Overall, the literature establishes that job performance in the public sector is deeply connected to opportunities for learning and development. Modern performance systems now recognize employees as active learners who contribute to institutional improvement through skill acquisition and innovation. For Philippine government employees, aligning PLNs with established mechanisms such as the SPMS and IPCR may strengthen the connection between continuous professional learning and measurable performance indicators, including quality of outputs, timeliness, efficiency, and service delivery standards. In this way, professional learning networks can serve not merely as

supplementary learning spaces but as strategic enablers of individual and organizational productivity within government institutions.

Digital Literacy And Technology Integration In PLNs

Digital literacy forms the foundation of meaningful participation in PLNs. In an era where professional growth is increasingly mediated by technology, the ability to navigate digital platforms, evaluate information critically, and collaborate online has become a core competency for both individual and organizational learning.

Scholars emphasize that digital literacy extends beyond operational familiarity with technological tools. It encompasses higher-order cognitive abilities, including critical evaluation of information, adaptive use of emerging platforms, and effective digital communication. Tinmaz et al. (2022) argue that digital literacy enables learners to transform information into applicable knowledge, thereby supporting lifelong and self-regulated learning in technology-rich contexts. Similarly, Al-Sabaawi et al. (2021) demonstrate that digitally confident professionals utilize platforms such as LinkedIn and Facebook not merely for social interaction but for informal learning, networking, and problem-solving. Their findings suggest that digital literacy empowers individuals to convert online engagement into sustained professional development.

Recent empirical evidence further highlights the relational dimension of digital literacy within professional environments. Deschênes (2024), in a large-scale study involving public service employees in hybrid work settings, found that higher digital literacy levels are associated with greater use of collaborative technologies and stronger perceptions of social proximity among colleagues. The study underscores that digital competence enhances the quality of digitally mediated interaction, facilitating trust, cohesion, and knowledge exchange. This indicates that digital literacy serves not only as a technical enabler but also as a social catalyst that strengthens the effectiveness of professional learning networks.

As digital ecosystems continue to evolve, emerging technologies have expanded opportunities for personalized and adaptive learning. Soleymani et al. (2022) explain that artificial intelligence systems, adaptive platforms, and microlearning tools support individualized learning pathways by recommending relevant resources and monitoring progress. These technologies create flexible learning environments that align with core PLN principles such as autonomy, relevance, and self-direction. Complementing this view, Oddone (2023) observes that professionals employ digital curation tools to collect, organize, and disseminate knowledge within their networks, reinforcing reflective practice and collaborative learning. Together, these studies illustrate that technology both enables and amplifies networked professional learning, while its effective use depends fundamentally on digital literacy.

Despite these advances, disparities in digital literacy and technological access continue to present challenges, particularly in public-sector organizations where infrastructure limitations and uneven training opportunities persist. Addressing these gaps requires strategic interventions, including digital-skills development programs, peer mentoring initiatives, and institutional support systems that ensure equitable participation in networked learning environments.

Overall, the literature positions digital literacy as both a prerequisite and a catalyst for effective engagement in PLNs. It equips professionals with the capacity to navigate complex digital systems, evaluate content critically, and participate constructively in online collaboration. For government employees, strengthening digital literacy initiatives enhances the quality of PLN participation and supports continuous capability development. In doing so, digital literacy contributes not only to individual competence but also to improved organizational responsiveness and performance within the public sector.

Collaboration And Informal Learning Through PLNs

Collaboration is the driving force behind Personal Learning Networks (PLNs). Through shared engagement, professionals exchange ideas, resources, and expertise, transforming individual learning into a collective endeavor that enhances both personal growth and organizational performance.

In PLNs, collaboration takes place in active communities where professionals connect over shared interests and challenges. Johannesson (2022) described these networks as modern versions of communities of practice (CoPs), noting that shared experiences and regular interaction help people create knowledge and solve problems together. This kind of collaboration strengthens skills, builds trust, and creates a sense of belonging among participants, which helps sustain their engagement over time.

The strength of PLNs lies in their informality and openness. Unlike traditional training, they allow professionals to seek guidance, share experiences, and experiment with new ideas in real time. Platforms such as Microsoft Teams and Google Workspace have made such collaboration more immediate and inclusive, enabling geographically dispersed employees to work together seamlessly. Bowser et al. (2024) demonstrated that communities grounded in regular interaction and shared purpose significantly improve knowledge retention and organizational learning. Their findings highlight that collaboration within PLNs leads to measurable improvements in performance by turning learning into an ongoing, social process rather than a one-time event.

Recent workplace research provides further insight into how informal learning unfolds within digitally mediated collaboration. Karhapää et al. (2024), in their study of knowledge workers in public-sector hybrid environments, describe digital workplaces as complex learning ecosystems where informal learning occurs through everyday practices such as participation in online meetings, open chat discussions, and screen sharing. These interactions create opportunities for peer support, tacit knowledge exchange, and spontaneous problem-solving. At the same time, the authors caution that digital environments may also constrain learning when multitasking, fragmented communication, or information overload limit meaningful engagement. This dual perspective highlights that digital collaboration environments can both expand and restrict informal learning, depending on how interaction is structured and managed.

Expanding on this view, Poortman et al. (2022) explained that professional learning networks create feedback-rich environments where knowledge moves freely between individuals and institutions. Such interaction encourages reflection and innovation, especially in the public sector, where complex challenges often call for collaborative solutions that extend beyond formal hierarchies.

The reviewed studies show that collaboration and informal learning are essential to the success of PLNs. Through shared inquiry and continuous dialogue, public-sector employees can create and apply knowledge that directly improves their work practices. Promoting this kind of collaboration helps build a culture where learning is a shared responsibility. It strengthens individual competence while supporting innovation and organizational improvement in government institutions.

Barriers And Challenges In PLN Adoption

Although PLNs hold great potential, they continue to face barriers to adoption in the public sector. These challenges stem from both structural limitations and organizational cultures that still favor traditional, hierarchical ways of learning. Access to technology and infrastructure remains a major concern. Romero-Hall (2021) noted that unequal connectivity and limited digital resources, particularly in developing and rural areas, make it difficult for employees to participate fully in networked learning environments. Without adequate infrastructure or institutional support, even motivated workers find it hard to stay engaged in their PLNs.

Aside from technical limitations, cultural and behavioral factors also influence how Personal PLNs are understood and used. Mukhlis et al. (2024) found that hesitation toward self-directed learning and low digital confidence often discourage employees from participating in informal and collaborative learning. Many public institutions continue to favor structured, top-down training programs, which tend to limit learner autonomy, the core element that makes PLNs effective.

Recent scholarship further suggests that barriers to networked learning extend beyond infrastructure and culture to include system-level design and organizational learning capacity. Zamiri and Esmaeili (2024) argue that effective knowledge sharing requires structured mechanisms for capturing, organizing, and redistributing knowledge within learning communities. When formal knowledge management processes are absent, shared insights may remain dispersed and inaccessible. The authors also highlight the importance of absorptive capacity, defined as the ability of individuals and organizations to acquire, assimilate, and apply new knowledge. Without sufficient capacity to process and integrate information, participation in PLNs may not lead to meaningful learning or improved performance.

Comparative studies show that rigid structures continue to hinder the integration of PLNs. Bjerke-Busch and Aspelund (2021), in their broader study on digital transformation, found that bureaucratic systems, limited funding, and resistance to change remain persistent barriers in the public sector. These structural and cultural constraints also slow the adoption of technology-based learning practices such as PLNs, since they limit the flexibility and experimentation needed for collaboration and knowledge sharing. Haug et al. (2024) further explained that digital transformation in government is not only a technical process but also a cultural shift that requires changes in leadership, values, and incentive systems.

Another challenge relates to the design of knowledge-sharing systems themselves. Zamiri and Esmaeili (2024) distinguish between pull-based systems, in which individuals actively seek information, and push-based systems, in which relevant knowledge is proactively delivered to members of a learning community. An overreliance on pull-based

approaches may limit sustained participation, particularly in high-workload public-sector environments where employees have limited time to search for resources independently. The authors also emphasize the need for systematic evaluation mechanisms to assess the effectiveness of knowledge-sharing initiatives. Without clear metrics and feedback structures, organizations may find it difficult to determine whether PLNs contribute meaningfully to professional development and institutional performance.

Addressing these challenges calls for a two-part approach: expanding access to technology and building a culture that values openness and peer learning. Investments in infrastructure should go hand in hand with leadership that promotes and rewards collaboration, reflection, and informal knowledge exchange.

Overall, the literature indicates that barriers to PLN adoption in the public sector stem from interconnected technological, cultural, structural, and systemic factors. Overcoming these challenges requires more than the provision of digital tools. It involves redesigning organizational practices to support knowledge exchange, developing capacities to absorb and apply new insights, and aligning incentives with collaborative learning. For Philippine government agencies, creating such conditions is essential to sustaining PLNs as part of professional development and enhancing public-service performance.

PLNs And Their Impact On Job Performance

PLNs have become a vital mechanism for continuous professional learning and improved job performance. By fostering collaboration, feedback, and innovation, PLNs enable employees to strengthen competencies that directly influence how effectively they perform their work.

Scholars view PLNs as dynamic systems that link individual learning to organizational outcomes. Poortman et al. (2022) proposed a conceptual model illustrating how participation in professional learning networks enhances professional practice through shared reflection and knowledge exchange. These interactions promote adaptive expertise, which is an essential component of high job performance in complex and evolving work environments.

Building on this foundation, Brown (2023) emphasized that the success of PLNs lies in their capacity to generate collective intelligence: members learn by solving real-world problems together, thereby improving both individual effectiveness and group productivity. Such engagement nurtures self-efficacy, openness to feedback, and a habit of reflection, all of which contribute to sustained performance improvement.

Empirical evidence supports these conceptual claims. Mohammed et al. (2022) found that employees who actively engage in PLNs demonstrate higher levels of innovation, collaboration, and problem-solving. Their study shows that PLN participation translates learning into tangible outcomes, enhancing productivity and the quality of work output. In the Philippine context, Teh and Duff (2025) found that digital competence significantly enhances employee performance and institutional efficiency in higher education settings. Their findings also support the view that technology-based communication and collaboration strengthen workplace adaptability and productivity, both of which are central to the concept of Personal Learning Networks.

Recent research also suggests that the relationship between informal networked learning and performance is complex and shaped by contextual factors. A multi-level analysis of informal workplace learning identified individual reflection, managerial support, and team knowledge exchange as distinct forms of learning behavior that contribute to capability development. However, their direct statistical relationship with team performance may vary depending on organizational climate, leadership support, and task alignment (Al-Hajri, 2024). These findings indicate that PLNs may strengthen performance indirectly by building collective capacity and adaptive readiness rather than producing immediate measurable gains.

Complementary evidence from systematic reviews of workplace learning further shows that informal learning enhances skill development and competence, but performance outcomes are often mediated by supportive learning climates and supervisory encouragement (Wijga, 2025). In environments where psychological safety and managerial support are present, informal learning activities are more likely to translate into improved task performance and innovative behavior. This highlights the importance of aligning PLN participation with organizational conditions that enable knowledge application.

Taken together, the literature establishes that PLNs contribute to job performance by linking professional learning with collaboration, innovation, and adaptability. At the same time, evidence suggests that performance improvement depends on the interaction between individual engagement, team-level exchange, and organizational support structures. Through sustained participation in PLNs, public-sector employees gain opportunities to refine their expertise, share knowledge, and respond effectively to evolving governance demands. Integrating PLN participation with established performance-management frameworks such as the IPCR and SPMS can therefore help government organizations cultivate a learning-oriented culture that strengthens both employee capability and institutional effectiveness.

Theory

This study is anchored on two complementary theoretical perspectives: Connectivism Learning Theory and Campbell's theory of job performance. These theories provide the basis for understanding how learning through Personal Learning Networks (PLNs) relates to job performance among government employees.

Connectivism Learning Theory, proposed by George Siemens (2004) and further developed by Stephen Downes (2008), explains learning in a digital and networked environment. The theory posits that knowledge is distributed across networks of people, information sources, and technological tools, and that learning occurs through forming and maintaining these connections. It emphasizes networked learning, the ability to access and evaluate information, and the continuous updating of knowledge in response to change.

In terms of domains and variables, connectivism highlights connections, information flow, and interaction within networks. In this study, these are reflected in PLN engagement, particularly in the frequency, variety, and quality of interaction with platforms such as social media, webinars, massive open online courses (MOOCs), and communities of practice

(CoPs). These elements capture how individuals participate in networked learning environments.

In the public sector, connectivism explains how employees engage in continuous learning despite limited formal training opportunities. Through PLNs, government employees access information, interact with peers across agencies, and develop competencies relevant to their roles. This reflects the view that learning is strengthened through active participation in dynamic and interconnected environments.

Complementing this perspective, the study also draws on Campbell's theory of job performance, introduced by Campbell (1990) and elaborated in later works. The theory defines job performance as behavior that contributes to organizational goals, rather than outcomes alone. It focuses on observable actions performed as part of work roles and distinguishes performance as behavior from performance as results.

The theory identifies key determinants of job performance: declarative knowledge, procedural knowledge and skills, and motivation. Declarative knowledge refers to what an individual knows, procedural knowledge and skills refer to how tasks are performed, and motivation reflects the effort and persistence applied in completing work. These determinants explain how individual capabilities influence work behavior.

In this study, these domains are reflected in job performance as measured through the Individual Performance Commitment and Review (IPCR), which captures employees' work-related behaviors and outputs. These determinants provide a basis for understanding how knowledge, skills, and motivation contribute to performance.

The integration of these two theories provides a clear explanation of the relationship examined in this study. Connectivism explains how learning occurs through networks, where individuals acquire and update knowledge through interactions with people, digital tools, and information sources. Through PLN engagement, employees develop declarative knowledge, procedural skills, and sustained motivation. These correspond to the key determinants of job performance identified in Campbell's theory. As such, the knowledge, skills, and motivation associated with PLN engagement are theoretically linked to employees' work behaviors, as reflected in their job performance. This provides a theoretical basis for examining the association between networked learning and job performance in the present study.

This combined theoretical foundation supports the methodological approach of the study. Examining the relationship between PLN engagement and job performance through a quantitative correlational design aligns with the assumption that learning behaviors and performance outcomes are interconnected.

Overall, Connectivism Learning Theory and Campbell's theory of job performance provide a coherent framework for understanding how networked learning influences workplace performance. Together, these theories support the premise that continuous learning through PLNs contributes to the development of knowledge, skills, and motivation essential for enhancing job performance among government employees in the Philippine public sector.

Research Questions

This study aims to investigate the relationship between perceived PLN engagement and self-reported job performance among selected government employees in the Philippines. Specifically, it seeks to answer the following questions:

1. What is the profile of the respondents with respect to their:
 - 1.1. Sex;
 - 1.2. Age;
 - 1.3. Educational Attainment; and
 - 1.4. Job Position?
2. What are the respondents' perceived Personal Learning Network engagement scores among the selected agencies:
 - 2.1. Department of Education (DepEd);
 - 2.2. Department of Science and Technology (DOST);
 - 2.3. Department of Social Welfare and Development (DSWD);
 - 2.4. Department of Trade and Industry (DTI);
 - 2.5. Development Academy of the Philippines (DAP);
 - 2.6. Marinduque State University (MarSu);
 - 2.7. National Council for Children's Television (NCCT); and
 - 2.8. Technical Education and Skills Development Authority (TESDA)?
3. What are the respondents' self-reported job performance scores among the selected agencies:
 - 3.1. Department of Education (DepEd);
 - 3.2. Department of Science and Technology (DOST);
 - 3.3. Department of Social Welfare and Development (DSWD);
 - 3.4. Department of Trade and Industry (DTI);
 - 3.5. Development Academy of the Philippines (DAP);
 - 3.6. Marinduque State University (MarSu);
 - 3.7. National Council for Children's Television (NCCT); and
 - 3.8. Technical Education and Skills Development Authority (TESDA)?
4. Is there a significant difference between the respondents' perceived Personal Learning Network engagement scores among selected agencies when grouped according to their profile variables?
5. Is there a significant difference between the respondents' self-reported job performance scores among different agencies when grouped according to their profile variables?
6. Is there a significant relationship between perceived PLN engagement and self-reported job performance, and to what extent do perceived PLN engagement and selected demographic variables predict job performance?
7. What program can be proposed based on the findings of the study?

Hypotheses

1. There is no significant difference between the respondents' perceived Personal Learning Network engagement scores among different agencies when grouped according to their profile variables.

2. There is no significant difference between the respondents' self-reported job performance rating among different agencies when grouped according to their profile variables.
3. There is no significant relationship between the respondents' perceived Personal Learning Network engagement scores and their self-reported job performance scores, and perceived PLN engagement and selected demographic variables do not significantly predict job performance.

Scope And Delimitations

This study examined the correlation between perceived Personal Learning Network (PLN) engagement and self-reported job performance among selected Philippine public sector employees. PLN engagement was measured using self-rated indicators of frequency, variety, and quality of participation, while job performance was assessed through self-reported measures adapted from the Individual Performance Commitment and Review (IPCR) system.

The study covered selected national government agencies, selected attached agencies, and one state university representing various sectors of public service, including education, science and technology, trade and industry, technical skills development, social welfare, and governance. The selected agencies were chosen based on their relevance to education, training, research, or programs that support knowledge development, particularly within youth and professional sectors. These eight agencies were purposively selected to ensure representation across key public-sector domains where learning, training, and knowledge development are operationalized, thereby aligning the study context with the researcher's academic focus in education and capacity development. While not all participating organizations have mandates directly focused on education, research, or training, many implement initiatives that promote knowledge sharing, collaboration, and continuous professional development within their respective fields.

The researcher, who is actively involved in facilitating capacity-building programs for different public-sector organizations, used her professional network and access to former training participants as the target respondents. This sampling approach may limit the objectivity of responses, as participants may already have prior exposure to learning and development initiatives, which could influence their perceptions of PLN engagement and job performance. This approach allowed the study to capture practical insights and diverse experiences from employees engaged in different areas of public service.

The findings of this study aim to provide useful information for participating agencies and may serve as a basis for enhancing public sector learning and development programs. Factors such as organizational culture, motivation, and leadership support, which may also influence job performance, were not included to maintain the focus on PLN engagement. These are acknowledged as possible influences beyond the scope of the present study. Moreover, the findings are limited to selected public-sector employees and are not intended to be generalized to the entire Philippine public sector.

This study utilized self-reported measures for both Personal Learning Network (PLN) engagement and job performance. Due to confidentiality restrictions and data privacy considerations in government agencies, official performance records such as the Individual Performance Commitment and Review (IPCR) were not accessed or obtained.

As a result, job performance was measured through respondents' self-evaluation based on established performance dimensions.

The use of self-reported data for both variables may introduce common method bias, as the independent and dependent variables were collected from the same source using the same instrument. This may result in inflated estimates of association; however, the findings should be interpreted as reflecting perceived relationships rather than objective or causal effects. These limitations were considered in interpreting the results to ensure alignment with the scope and design of the study.

METHODOLOGY

The methodology of the study is presented in this chapter. It discusses the research design, study location, subjects and participants, data collection procedure, including research instrument and validity and reliability testing, data processing system, analytical schemes, and statistical tools.

Research Design

The study employed a quantitative correlational research design to examine the relationship between perceived Personal Learning Network (PLN) engagement and self-reported job performance among government employees. This design was appropriate because it allowed the researcher to analyze the relationship between two variables without manipulating them. Specifically, the study examined the relationship between perceived PLN engagement scores and self-reported job performance scores based on the Individual Performance Commitment and Review (IPCR).

Locale Of The Study

The study was conducted among eight (8) selected Public Sector Organizations (PSOs) in the Philippines, focusing on institutions involved in designing, delivering, and enhancing programs related to education, research, and the youth sector. These PSOs include one university and national government agencies, and their attached offices, some of which had respondents from Luzon, Visayas, and Mindanao. Together, these organizations play a significant role in advancing education and supporting national development. This setting provided a practical and relevant context for examining the relationship between participation in PLNs and job performance within the Philippine public sector.

1. Department of Education (DepEd)

The Department of Education (DepEd) is the executive department of the Philippine government tasked with ensuring access to, promoting equity in, and improving the quality of basic education. Guided by Republic Act No. 9155, also known as the Governance of Basic Education Act of 2001, DepEd is responsible for the formulation, implementation, and coordination of policies, plans, programs, and projects for formal and non-formal education in the elementary and secondary levels. Its mission is to protect and promote the right of every Filipino to quality, equitable, culture-based, and complete basic education (DepEd, n.d.).

The study included various DepEd offices from the national and regional levels to capture the perspectives of personnel engaged in educational leadership,

planning, and delivery of instruction. These offices represented both policymaking and field implementation units of the agency, offering a comprehensive understanding of how PLNs functioned within the education sector to enhance job performance and professional learning.

Located at Meralco Avenue, Pasig City, the DepEd Central Office oversees the national implementation of education policies and programs. It coordinates with regional and division offices to ensure alignment with the Philippine Development Plan and other national priorities. The Central Office also spearheads strategic initiatives to enhance teaching and learning, such as the integration of technology in education (DepEd Central Office, n.d.).

The study also included regional and schools division offices that represent diverse educational contexts across the country. The DepEd Regional Office VI – Western Visayas, located in Iloilo City, implemented national policies and programs at the regional level and provided technical assistance to its division offices. It focused on improving access to quality education and strengthening teacher competencies through regional partnerships and learning interventions (DepEd Regional Office VI, n.d.).

Similarly, the DepEd Regional Office IV-A (CALABARZON), located at Gate 2, Karangalan Village, Cainta, Rizal, served as the policy and implementation hub for the CALABARZON region. The office supervised the provinces of Cavite, Laguna, Batangas, Rizal, and Quezon, ensuring that regional programs reflected both national priorities and local education needs (DepEd Regional Office IV-A, n.d.).

At the division level, the Schools Division Office (SDO) of Capiz, based in Banica, Roxas City, managed basic education delivery for the province's public schools. It was responsible for supporting teachers and school heads in instructional supervision, monitoring, and local capacity-building activities.

The Schools Division Office of Baguio City, located at #82 Military Cut-off Road, Baguio City, supervised schools within the Cordillera Administrative Region. It facilitated continuing professional development among teachers and adopted ICT-based learning approaches suitable for urban and mountainous contexts (DepEd-CAR, n.d.).

The Schools Division Office of Manila, under the National Capital Region (NCR), coordinated programs focused on improving urban education quality, teacher performance, and inclusive education. Alongside it, the DepEd-NCR Regional Office, based in Misamis Street, Bago Bantay, Quezon City, served as the coordinating body for all division offices within Metro Manila. The office ensured quality assurance, policy guidance, and capacity-building programs aligned with the national education framework (DepEd NCR, n.d.).

By including the DepEd Central Office and its regional and division offices, specifically RO VI (Western Visayas), RO IV-A (CALABARZON), SDO Capiz, SDO Baguio City, SDO Manila, and DepEd NCR, the study captured the perspectives of educators and administrators from both national and field levels. Their inclusion provided insights into how PLNs supported collaboration, knowledge sharing, and professional development across geographically diverse educational settings.

2. Department of Science and Technology (DOST)

The Department of Science and Technology (DOST) is the premier science and technology body in the Philippines, responsible for the coordination and implementation of policies, programs, and projects that promote national development through scientific and technological advancement. Its mission is to direct and synchronize scientific and technological endeavors to foster national growth and improve the quality of life for Filipinos.

Under its mandate, DOST aims to cultivate a strong workforce of scientists, engineers, and technologists. Among its key initiatives is the Undergraduate Scholarship Program, governed by Republic Act No. 7687, also known as the Science and Technology Scholarship Act of 1994, which provides opportunities for financially disadvantaged yet deserving students pursuing degrees in science, mathematics, and engineering. Additionally, the DOST–Science Education Institute (SEI) Merit Scholarship Program offers assistance to academically gifted students in science and mathematics to ensure the availability of highly skilled professionals in the STEM fields.

Complementing these scholarship programs is the Young Innovators Program (YIP), implemented by the DOST–Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD). The program recognizes and supports promising high school and undergraduate students who demonstrated exceptional creativity and scientific potential. Through research grants, mentorship, and laboratory access, YIP encourages youth-led innovations that address real-world challenges and promotes a culture of research and scientific inquiry among the younger generation.

The study included the DOST Central Office, located in Taguig City, as well as Regional Offices VI (Iloilo City) and X (Cagayan de Oro City). In addition, respondents were drawn from the following attached agencies and institutes like DOST Application and Promotion Institute (TAPI), DOST Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD), Philippine Science High School (PSHS) system, The Philippine Textile Research Institute (PTRI), and The National Academy of Science and Technology (NAST).

By incorporating these offices, the study acknowledged the critical role DOST plays in implementing national policies and fostering regional growth through science and technology. This inclusion provided a comprehensive understanding of how the department's initiatives and its network of attached agencies contributed to professional development and job performance in public sector agencies.

3. Department of Social Welfare and Development (DSWD)

The Department of Social Welfare and Development (DSWD) is the government's lead agency in promoting social protection, poverty reduction, and community empowerment. It is mandated under Republic Act No. 5416, known as the Social Welfare Act of 1968, to develop, implement, and coordinate programs that uplift the disadvantaged and improve their quality of life. As part of its broader mission, DSWD emphasizes human capital development, ensuring that social

welfare services contribute to education, employability, and the empowerment of the youth.

Several of the department's flagship programs directly support education and youth development. The Pantawid Pamilyang Pilipino Program (4Ps), institutionalized under Republic Act No. 11310, provides conditional cash transfers to poor households to keep children in school and promote their health and well-being (DSWD, 2024a). Complementing this is the Sustainable Livelihood Program (SLP), which offers capacity-building and skills training to improve employability and support microenterprise development among low-income families (DSWD, 2024b).

DSWD also implements the Youth Development Program (YDP) under the Pag-asa Youth Association of the Philippines (PYAP), a nationwide organization of out-of-school youth and other disadvantaged young individuals. The program develops leadership, civic consciousness, and livelihood skills through community-based learning and peer networks (DSWD, 2024c). These initiatives demonstrate DSWD's commitment to inclusive human development, combining social protection with education and capacity-building measures that prepare the youth for productive citizenship.

For this study, DSWD's inclusion provided a perspective on how government employees engage in program delivery and social development using Personal Learning Networks (PLNs) to enhance service coordination, knowledge sharing, and community-based learning approaches. Respondents were drawn from the central office located at Batasan Hills, Quezon City, which manages education- and training-related initiatives, ensuring representation from the national and field levels.

By including DSWD, the study acknowledges the agency's critical role in advancing social welfare through programs that link family support, youth development, and lifelong learning. Its initiatives underscore how public servants in human development sectors engage in continuous learning to deliver impactful and inclusive services.

4. Department of Trade and Industry (DTI)

The Department of Trade and Industry (DTI) is the primary government agency responsible for promoting, coordinating, and regulating the nation's trade, industry, and investment activities. Its mission is to enable the business sector, particularly micro, small, and medium enterprises (MSMEs), to thrive in a globally competitive environment. DTI serves as a catalyst for inclusive economic growth by fostering industrial policy, advancing trade initiatives, and supporting enterprise development. In alignment with the Philippine Development Plan (PDP) 2023–2028, DTI is committed to promoting equitable economic opportunities and driving national development.

The DTI's initiatives are central to empowering entrepreneurs and fostering economic resilience. Programs such as the Youth Entrepreneurship Program (YEP) exemplify its commitment to developing entrepreneurial skills among young Filipinos aged 18–30. YEP provides targeted interventions to nurture youth potential through education, mentorship, and enterprise development, reinforcing

DTI's broader mission to cultivate innovation and inclusivity in the Philippine economy (Department of Trade and Industry, 2024a).

Complementing YEP are two flagship initiatives that strengthen entrepreneurial learning and productivity. The Negosyo Center Program, established under Republic Act No. 10644 or the Go Negosyo Act, provides accessible business registration, mentoring, and training services for MSMEs across the country (Department of Trade and Industry, 2024b). Meanwhile, the Shared Service Facilities (SSF) Program enhances MSME competitiveness by providing access to modern equipment and technology for product development and skills upgrading, benefiting both established entrepreneurs and youth-led enterprises (Department of Trade and Industry, 2024c).

The study included respondents from the DTI Central Office in Makati City and the DTI Regional Office VII in Cebu City. The Central Office served as the policy-making and program development hub of the department, ensuring that trade and industry initiatives remained aligned with national economic goals and strategies. The Regional Office VII implemented enterprise development programs tailored to the needs of Central Visayas, focusing on MSME support, trade promotion, and local entrepreneurship development. Through these offices, the study captured how DTI personnel engaged in learning networks, mentoring, and collaborative activities that contributed to improved performance and service delivery.

By including the DTI Central Office and Regional Office VII, the study highlighted the department's role in fostering entrepreneurship and advancing youth empowerment through initiatives such as the Youth Entrepreneurship Program, Negosyo Center Program, and Shared Service Facilities Program. Together, these programs continue to strengthen the country's entrepreneurial ecosystem and equip Filipinos, particularly the youth, with the competencies necessary for innovation-driven and sustainable economic growth.

5. Development Academy of the Philippines (DAP)

The Development Academy of the Philippines (DAP) was established under Presidential Decree No. 205 in 1973 as the government's national training, research, and consultancy institution. It is mandated to promote competence, productivity, and innovation in the public sector through education, capacity building, and organizational development. DAP also serves as the Asian Productivity Organization (APO) Center of Excellence on Public-Sector Productivity, leading regional initiatives that strengthen governance and performance improvement across government institutions.

DAP implements a range of programs that foster professional learning and continuous improvement. The Public Sector Productivity Innovation Laboratory (PSP-IL) provides a platform for government agencies to design and test innovative solutions that address operational and service delivery challenges (Development Academy of the Philippines, 2024a). The Government Quality Management Program (GQMP) institutionalizes quality standards and continuous improvement practices in the public sector through technical assistance, certification, and training (Development Academy of the Philippines, 2024b). Meanwhile, the Productivity

Challenge for the Youth engages students and young professionals in innovation projects that promote civic participation and productivity awareness (Development Academy of the Philippines, 2024c).

DAP also manages the Results-Based Performance Management System (RBPMS) and acts as the Secretariat of the Administrative Order No. 25 Inter-Agency Task Force (AO25 IATF), which oversees the implementation of the Performance-Based Incentive System (PBIS) for national government agencies. The RBPMS promotes transparency and accountability by monitoring agency performance, linking organizational results with individual incentives, and advancing a culture of good governance and evidence-based management in the bureaucracy (Development Academy of the Philippines, 2024d).

Additionally, DAP operates the Graduate School of Public and Development Management (GSPDM), which offers graduate and diploma programs for professionals in the public, private, and civil society sectors. Its academic programs integrate theory and practice in leadership, governance, and development management (Development Academy of the Philippines, 2024e). The Academy also extends its reach to the youth sector through specialized courses for Sangguniang Kabataan (SK) officials and Local Youth Development Officers (LYDOs), such as the Course on Managing Local Projects for the Youth Sector, conducted in partnership with the National Youth Commission (NYC) (Development Academy of the Philippines, 2024f).

The study included respondents from the DAP Central Office in Pasig City, representing an institution that combines training, research, and policy implementation. By incorporating DAP, the study captured how employees engaged in continuous learning through formal programs, innovation labs, and inter-agency collaboration—practices that exemplify the principles of Personal Learning Networks (PLNs).

By including the Development Academy of the Philippines (DAP), the study acknowledged the institution's multifaceted role in public sector transformation as a training provider, policy think tank, and Secretariat of Administrative Order No. 25, Series of 2011, which oversees the Results-Based Performance Management System (RBPMS) and promotes excellence in government.

6. Marinduque State University (MarSu)

Marinduque State University (MarSu) is a public higher education institution located in the province of Marinduque, MIMAROPA Region. It was converted from Marinduque State College (MSC) into a university through Republic Act No. 11334, enacted on April 26, 2019. The university is mandated to provide advanced instruction, professional training, research, and extension services in education, science, technology, and other related fields that contribute to national and regional development (Republic Act No. 11334, 2019).

MarSu's mission is to produce globally competitive graduates and promote innovation-driven growth through instruction, research, and community engagement. It offers undergraduate and graduate programs in teacher education, business, information technology, agriculture, fisheries, and industrial technology—fields that directly support local economic and human capital development. The

university also undertakes community-based extension projects that advance entrepreneurship, sustainability, and technological application in rural settings.

The respondents for this study were drawn from three MarSu campuses, namely MarSu Main Campus, Torrijos Campus, and Boac Campus, representing the diversity of academic and administrative functions within the university:

MarSu's inclusion in this study highlights the perspective of higher education institutions (HEIs) in regional settings where faculty and administrative personnel actively engage in professional learning and knowledge sharing despite limited resources. As a state university committed to inclusive and technology-enabled learning, MarSu embodies the principles of PLNs by promoting continuous professional growth, collaborative research, and digital connectivity among educators and staff.

By including MarSu and its three campuses, the study captures the role of regional universities in cultivating lifelong learning cultures that contribute to local capacity building and innovation-driven development.

7. National Council for Children's Television (NCCT)

The National Council for Children's Television (NCCT) is a government agency attached to the Department of Education (DepEd), established under Republic Act No. 8370, also known as the Children's Television Act of 1997. It is mandated to promote high-quality, educational, and child-sensitive television content and to ensure the creation of media that supports children's learning and holistic development. The Council integrates values education and media literacy into both formal and informal learning environments, reinforcing DepEd's mission to uphold quality education and contribute to the broader goal of child and youth development in the Philippines.

NCCT fulfills its mandate through capacity-building, advocacy, and training initiatives. Among its flagship activities is the Child-Friendly Content Development and Training Program, which provides workshops and mentorship for educators, content creators, and broadcast professionals in designing educational and age-appropriate media (National Council for Children's Television, 2024a). The Media Literacy Campaign for Teachers and Parents further enhances the capacity of educators and families to guide children in critically evaluating media and digital content (National Council for Children's Television, 2024b).

In addition, the Council organizes the Children's Television Summit, an annual gathering of teachers, filmmakers, youth representatives, and government agencies. This event promotes the exchange of best practices in educational broadcasting and creative media production (National Council for Children's Television, 2024c). These ongoing initiatives show the NCCT's commitment to connecting media, education, and child development, while empowering professionals in these sectors to serve as learning network nodes for the youth.

The study included employees from the NCCT Central Office, located at the 4th Floor, 1 Campanilla, Quezon City. The office serves as the hub for the Council's policy formulation, program coordination, and partnership development with schools, media organizations, and civic groups. By incorporating NCCT, the study

captured the perspectives of professionals who advance educational media and advocacy through collaboration and continuous learning.

The inclusion of NCCT in the study highlighted the importance of educational media as a platform for lifelong learning and youth empowerment. Its programs continue to illustrate how collaboration and digital engagement can enhance professional growth and job performance in the public sector while promoting responsible, values-driven communication for children and young audiences.

8. Technical Education and Skills Development Authority (TESDA)

The Technical Education and Skills Development Authority (TESDA) is the government agency mandated to manage and supervise technical education and skills development in the Philippines. Established under Republic Act No. 7796, or the TESDA Act of 1994, the agency promotes the development of middle-level manpower by providing high-quality training, assessment, and certification programs. It plays a vital role in enhancing employability, productivity, and competitiveness through technical-vocational education and training (TVET) initiatives that respond to both local and global workforce demands (TESDA, n.d.).

TESDA fulfills its mandate through several flagship programs that advance education and youth empowerment. The TESDA Online Program (TOP) provides free, open-access e-learning courses that enable Filipinos to learn at their own pace using digital platforms (TESDA, 2024a). The Training for Work Scholarship Program (TWSP) offers targeted scholarships aligned with high-demand industries such as information technology, manufacturing, and tourism (TESDA, 2024b). Meanwhile, the Youth Skills Development Program (YSDP) extends training opportunities to out-of-school youth and marginalized groups, fostering employability and social inclusion through community-based learning (TESDA, 2023). These programs demonstrate TESDA's continuing commitment to inclusive, lifelong learning and to expanding access to practical skills development nationwide.

The study included respondents from three TESDA offices representing different organizational levels and geographic contexts. The TESDA Central Office, located at East Service Road, South Superhighway, Taguig City, served as the agency's policy and coordination hub, responsible for formulating national training standards and managing key scholarship and certification programs. The TESDA PaMaMariSan District Office, based on the 2nd Floor of the NTTA Building, MPC Compound, Chanyungco Street, Sta. Elena, Marikina City, oversaw training centers and collaborated with local government units and private institutions in Pasig, Mandaluyong, Marikina, and San Juan to implement programs responsive to local employment needs. The TESDA Regional Office XII, located in Koronadal City, South Cotabato, coordinated TVET initiatives across the Soccsksargen region, emphasizing technical training for industries such as agriculture, fisheries, and manufacturing.

By including these TESDA offices, the study captured how the agency's nationwide network supported workforce development through both centralized policymaking and localized training delivery. This inclusion illustrated TESDA's pivotal role in linking technical-vocational education with regional development

goals and in promoting continuous professional learning among public-sector personnel.

Participants

The study's respondents consisted of 200 government employees, regardless of their employment status. These employees included individuals in: (a) first-level positions, which involved structured work supporting office operations or roles in clerical, trades, crafts, or custodial services that entail sub-professional work in both non-supervisory and supervisory capacities, and (b) second-level positions, encompassing professional, technical, and scientific roles that involve non-supervisory or supervisory work, up to the Division Chief level or its equivalent, as defined by CSC Resolution No. 1800692 - 2017 Omnibus Rules on Appointments and Other HR Actions.

The study employed a purposive–quota sampling technique in selecting respondents. Government agencies were deliberately chosen based on their relevance to education, training, research, and knowledge development within the public sector. While some agencies have direct mandates in these areas, others implement programs that support learning and capacity development, particularly for youth and professional sectors.

A quota of 25 respondents per agency was established to ensure comparability across organizations. Since the study focused on selected public-sector organizations and employed purposive–quota sampling, respondent selection was based not on population representativeness but on analytic comparability and feasibility. This quota provided a uniform basis for comparing perceived PLN engagement and self-reported job performance across the participating organizations. Thus, the number of respondents was determined by the study's comparative design and practical access conditions rather than by formal sample size computation for statistical generalization.

Respondents were identified through coordination with Human Resource offices and through professional networks, ensuring that participants were engaged in environments where knowledge sharing and continuous learning are relevant to their roles. However, this non-probabilistic sampling approach does not aim to produce a statistically representative sample of the entire Philippine public sector.

Table 1: Targeted respondents in selected public-sector organizations

Public Sector Organizations	Number of respondents
Department of Education (DepEd)	25
Department of Science and Technology (DOST)	25
Department of Social Welfare and Development (DSWD)	25
Department of Trade and Industry (DTI)	25

Development Academy of the Philippines (DAP)	25
Marinduque State University (MarSu)	25
National Council for Children’s Television (NCCT)	25
Technical Education and Skills Development Authority (TESDA)	25
Total Respondents	200

Instruments Of The Study

This study utilized a researcher-made questionnaire to measure the relationship between perceived PLN engagement and self-reported job performance among government employees. The questionnaire was adapted from established frameworks and studies, including those of Trust et al. (2016), Dutta et al. (2024), and the Individual Performance Commitment and Review (IPCR).

The instrument gathered demographic information such as age, sex, educational attainment, and job position to provide contextual background for analyzing perceived PLN engagement and self-reported job performance within the public sector. The section on PLN engagement included Likert-scale items that assessed the frequency, variety, and quality of networked learning activities, such as the use of digital tools, collaboration with peers, and participation in online communities. Job performance was evaluated through self-assessment items derived from key dimensions of the IPCR, covering aspects such as output, quality, and timeliness. It should be noted that job performance in this study was measured through self-reported assessment rather than official performance ratings. This approach was adopted due to confidentiality and access limitations in government agencies. As such, the measure reflects perceived job performance rather than formally evaluated outcomes.

To ensure the reliability and relevance of the instrument, the questionnaire underwent validation by a panel of three experts with diverse backgrounds. Validator 1 is the Division Chief of the Department of Social Welfare and Development’s Human Resource Management and Development Service, with expertise in Learning and Development. Validator 2 is a licensed civil engineer and a master plumber. Validator 3 leads the Research component of the Development Academy of the Philippines’ Center of Excellence on Public Sector Productivity Program Management Office, whose team has conducted multiple studies on productivity within public sector organizations nationwide.

The validators reviewed the instrument for clarity, content validity, and practical applicability. Based on their feedback, several revisions were incorporated. These included adding a clear definition and examples of PLN at the beginning of the survey form to guide respondents, and reorganizing a few items under the job performance section to improve coherence and facilitate data analysis. These adjustments helped refine the questionnaire to ensure that it accurately captured the intended variables and was easy for respondents to understand and complete.

Data Gathering Procedure

The study followed a systematic procedure to ensure the effective collection of data needed to achieve its objectives. At the start of the process, the researcher secured verbal consent from colleagues and other participants personally known to the researcher. A formal letter of request was also sent to the Human Resource (HR) departments of the selected government agencies to help identify participants who could fill the required slots. In addition, a consent form was incorporated into the online survey to obtain each participant's agreement to take part in the study and to confirm their understanding that their data would be stored and used solely for research purposes.

The research instrument, an online survey administered through Google Forms, gathered information on Personal Learning Network (PLN) engagement and job performance among government employees. The data collection process followed the timeline presented below:

Table 2: Timeline of activities before and during the implementation of the survey

Date	Activities
Week 3 of March 2025 - Week 2 April 2025	Submitted formal requests to HR departments to disseminate the survey among employees, with follow-ups to encourage participation.
Week 1 of April 2025	Experts validated the survey instrument. Adjusted survey instrument based on the suggestions/comments of experts.
Week 2 of April 2025	Conducted pilot testing with 10 government employees to refine the clarity and usability of the survey instrument. Adjusted the survey questionnaire based on the feedback gathered during pilot testing.
Week 3 of April 2025 - Week 4 of May 2025	Distributed the survey via Google Forms to identified participants.

To accommodate participants who were unavailable during the initial survey distribution, the researcher allowed two weeks for responses. No interviews or focus group discussions (FGDs) were conducted, and data collection relied entirely on the online survey.

Although no direct monitoring took place during data collection, the researcher provided clear and concise instructions within the Google Form. A brief introduction at the beginning of the survey explained the purpose of the study, the estimated time needed to complete it, and a reminder for participants to answer all questions honestly. In addition, periodic

follow-up emails and reminders were sent during the two-week response period to maximize the response rate.

Statistical Treatment Of Data

This research aims to provide answers to the following statement of problem through these statistical treatments.

SOP 1: What is the profile of the respondents with respect to their sex, age, educational attainment, and job position?

The respondents' profiles were analyzed using frequency and percentage for all categorical variables, including sex, age, educational attainment, and job position.

SOP 2: What are the respondents' perceived Personal Learning Network engagement scores among the selected agencies?

The respondents' perceived PLN engagement scores were analyzed using descriptive statistics, specifically the mean, median, minimum, maximum, and standard deviation. These measures provided a summary of the central tendency and variability of the respondents' perceived PLN engagement levels.

SOP 3: What are the respondents' self-reported job performance scores among the selected agencies?

The respondents' self-reported job performance scores were analyzed using descriptive statistics, specifically the mean, median, minimum, maximum, and standard deviation. These measures provided a summary of the central tendency and variability of their self-reported job performance levels, as evaluated using criteria adapted from the Individual Performance Commitment and Review (IPCR) system.

SOP 4: Is there a significant difference between the respondents' perceived Personal Learning Network engagement scores among selected agencies when grouped according to their profile variables?

To determine whether differences in perceived PLN engagement exist when grouped according to profile variables, the study utilized non-parametric tests. The Mann–Whitney U test was applied for profile variables with two groups (e.g., sex), while the Kruskal–Wallis H test was used for variables with more than two groups (e.g., age, educational attainment, and job position). These tests assessed whether statistically significant differences existed among the groups without assuming a normal distribution.

SOP 5: Is there a significant difference between the respondents' self-reported job performance ratings among different agencies when grouped according to their profile variables?

The same non-parametric tests were applied to examine possible differences in self-reported job performance ratings across profile variables. Specifically, the Mann–Whitney U test was used for variables with two groups (e.g., sex), while the Kruskal–Wallis H test was employed for variables with more than two categories (e.g., age, educational attainment, and job position). These tests determined whether statistically significant differences existed among the groups without assuming a normal distribution.

SOP 6: Is there a significant relationship between perceived PLN engagement and self-reported job performance, and to what extent do perceived PLN engagement and selected demographic variables predict job performance?

To determine the relationship between perceived PLN engagement and self-reported job performance, the Spearman rank-order correlation coefficient (ρ) was computed. This non-parametric test was used to measure the strength and direction of the association between the two variables and was deemed appropriate given the non-normal distribution of the data.

To further examine the predictive relationship, multiple linear regression analysis was conducted. Job performance was treated as the dependent variable, while perceived PLN engagement was entered as the main predictor, with selected demographic variables (sex, age, educational attainment, and job position) included as covariates. This analysis was used to determine the extent to which PLN engagement predicts job performance while accounting for the influence of demographic factors.

The results are interpreted as associative and predictive relationships and do not imply causality.

Ethical Considerations

This study prioritized the protection of respondents' rights and welfare while maintaining the integrity of the research process by adhering to established ethical guidelines. Participants provided their informed consent as part of the data gathering procedure. A consent statement was embedded in the first section of the online survey, administered via Google Forms. This statement provided clear information about the study's purpose, the nature of their participation, and assurances of confidentiality and privacy. Respondents indicated their consent before proceeding with the survey, demonstrating that their participation is voluntary and informed.

The survey collected limited demographic data, including but not limited to age and job position, without gathering personal identifiers such as names or contact details. All responses will remain anonymous. Data was presented in aggregated form to prevent individual responses from being traced back to specific participants. This approach reduces potential risks of social, psychological, or professional harm to respondents.

Permission to disseminate the survey was requested from either the HR Director or Regional/District Directors of the participating agencies through a formal written letter. For participants directly known to the researcher, consent was obtained individually, maintaining flexibility while adhering to ethical guidelines. This dual approach ensured that all participants are well-informed and voluntarily agree to participate in the study.

Although no sensitive questions were included, the researcher took steps to minimize any potential harm by focusing the survey questions on job-related constructs and Personal Learning Network (PLN) engagement. The validity of the research instrument was enhanced through pilot testing it to ten (10) government employees and incorporated their feedback.

These measures support the rights and dignity of respondents, maintain the confidentiality of their responses, and uphold the reliability and credibility of the study's findings.

RESULTS

Profile of Respondents

Table 3.1 Profile of respondents by sex

Sex	Frequency	Percentage (%)
Male	86	43%
Female	114	57%
Total	200	100%

Table 3.2 Profile of respondents by age

Age	Frequency	Percentage (%)
18-24 years	18	9%
25-34 years	123	61.5%
35-44 years	40	20%
45-54 years	16	8%
55-64 years	3	1.5%
Total	200	100%

Table 3.3 Profile of respondents by educational attainment

Educational Attainment	Frequency	Percentage (%)
Bachelor's degree	141	70.5%
Doctorate degree	3	1.5%
Graduate Studies (Incomplete)	4	2.0%

High school graduate	2	1.0%
Incomplete College / Undergraduate Level	1	0.5%
Master's degree	45	22.5%
Vocational/Technical Education	4	2.0%
Total	200	100%

Table 3.4 Profile of respondents by job position

Job Position	Frequency	Percentage (%)
Clerical	57	28.5%
Technical/Professional	134	67.0%
Supervisory/Managerial	9	4.5%
Total	200	100%

Table 4

Table 4 Perceived PLN engagement scores across selected public-sector organizations

Agency	Mean	Median	SD	Min	Max
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Department of Education	5.59	5.69	1.17	1.8	7
Department of Science and Technology	5.25	5.46	1.28	1	6.9
Department of Social Welfare and Development	5.28	5.46	1.13	2.3	7
Department of Trade and Industry	5.4	5.77	1.05	3.5	6.8
Development Academy of the Philippines	5.42	5.77	1.06	2.2	7
Marinduque State University	5.53	5.77	0.77	4	6.7
National Council for Children's Television	5.1	5.23	0.93	3.2	6.2
Technical Education and Skills Development Authority	5.09	5.62	1.25	1	6.5

Table 5

Table 5 Self-reported Job Performance ratings across selected public-sector organizations

Agency	Mean	Median	SD	Min	Max
Department of Education	6.16	6.15	0.705	4.54	7
Department of Science and Technology	6.09	6.15	0.635	4	7
Department of Social Welfare and Development	5.82	6	0.959	3.46	7
Department of Trade and Industry	5.93	6.08	0.809	4	7
Development Academy of the Philippines	5.81	5.92	1.16	1.15	7

Marinduque State University	5.96	6.31	0.932	4	7
National Council for Children's Television	5.87	6	0.817	3.92	7
Technical Education and Skills Development Authority	5.87	6	0.743	4.31	7

Table 6
Differences in PLN Engagement Scores Based on Respondents' Profile Variables

Table 6.1 Perceived PLN engagement scores by sex

Sex	Mean	SDE	Median	SD	Min	Max
Female	5.41	0.098	5.69	1	1.8	7
Male	5.23	0.123	5.46	1.1	1	7

Table 6.1.1 Mann–Whitney U test results for perceived PLN engagement by sex
Independent Samples T-Test

		Statistic	p
PLN_Mean Scores	Mann-Whitney U	4416	0.231

Note. $H_a: \mu_{\text{Female}} \neq \mu_{\text{Male}}$

Table 6.2 Perceived PLN engagement scores by age group

Age Group	N	Mean	SD	SE
18–24 years old	18	5.38	0.886	0.2089
25–34 years old	123	5.33	1.053	0.0950
35–44 years old	40	5.15	1.269	0.2006
45–54 years old	16	5.75	0.887	0.2217

55–64 years old	3	5.15	1.978	1.1418
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Table 6.2.1 Kruskal–Wallis H test results for perceived PLN engagement by age group
Kruskal-Wallis

	χ^2	df	p
PLN_Mean Scores	1.9 8	4	0.73 9

Table 6.3 Perceived PLN engagement scores by educational attainment

Educational Attainment	Shapiro-Wilk W	Shapiro-Wilk p
Bachelor's degree	0.912	<.001
Doctorate degree	0.842	0.22
Graduate Studies (Incomplete)	0.852	0.233
High school graduate	NaN	NaN
Incomplete College / Undergraduate Level	NaN	NaN
Master's degree	0.885	<.001
Vocational/Technical Education	0.746	0.035

Table 6.3.1 Kruskal–Wallis H test results for perceived PLN engagement by educational attainment

Kruskal-Wallis

	χ^2	df	p
PLN_Mean Scores	8.8 3	6	0.18 3

Table 6.4 Perceived PLN engagement scores by job position

Job Position	N	Mean	SD	SE
Clerical	57	5.27	1.051	0.1392
Technical/Professional	134	5.35	1.078	0.0931

Supervisory/ Managerial	9	5.49	1.518	0.5059
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Table 6.4.1 Kruskal–Wallis H test results for perceived PLN engagement by job position
Kruskal-Wallis

	χ^2	df	p
PLN_Mean Scores	1.4 7	2	0.47 9

Differences in Job Performance Ratings by Profile Variables

Table 7.1. Self-reported Job performance scores by sex

	Sex	N	Mean	Median	SD	SE
JP Mean Score	Female	114	5.99	6.12	0.818	0.0766
	Male	86	5.87	6.0	0.898	0.0968

Table 7.1.1 Mann–Whitney U test results for self-reported job performance by sex

		Statistic	p
JP_Mean Score	Mann-Whitney U	4467	0.282

Note. $H_a \mu_{\text{Female}} \neq \mu_{\text{Male}}$

Table 7.2 Self-reported Job performance scores by age group

	Age Group	N	Mean	SD	SE
JP Mean Score	18–24	18	5.97	0.544	0.1282
	25–34	123	5.91	0.814	0.0734
	35–44	40	5.89	1.090	0.1724
	45–54	16	6.31	0.687	0.1717
	55–64	3	5.64	1.195	0.6899

Table 7.2.1 Kruskal–Wallis H test results for self-reported job performance by age group

	χ^2	df	p
JP_Mean Score	3.19	4	0.527

Table 7.3 Self-reported Job performance scores by educational attainment

Educational Attainment	Mean	Median	SD	Min	Max	Shapiro-Wilk W	Shapiro-Wilk P
Bachelor's Degree	5.84	6	0.888	1.2	7	0.877	<.001
Doctorate Graduate Studies (Incomplete)	6.74	6.92	0.311	6.4	6.9	0.75	<.001
High School Graduate	6.17	6.42	0.855	5	6.9	0.873	0.31
Incomplete College/Undergrad	6.12	6.12	1.14	5.3	6.9	NaN	NaN
Master's Degree	6	6	NaN	6	6	NaN	NaN
Vocational/Technical	6.12	6.23	0.747	4	7	0.92	0.004
	6.25	6.08	0.516	5.9	7	0.84	0.197

Table 7.3.1. Kruskal–Wallis H test results for self-reported job performance by educational attainment

	χ^2	df	p
JP_Mean Score	8.49	6	0.204

Table 7.4 Self-reported Job performance scores by job position

Job Position	N	Mean	SD	SE
Clerical	57	5.93	0.759	0.1006

Technical/Professional	134	5.95	0.781	0.0675
Supervisory/ Managerial	9	5.78	1.968	0.6559

Table 7.4.1 Kruskal–Wallis H test results for self-reported job performance by job position

Kruskal-Wallis

	χ^2	df	p
JP_Mean Scores	2.0	2	0.36
	2		4

Relationship between perceived PLN engagement and self-reported job-performance, and regression analysis predicting job performance

Table 8.1 Relationship between perceived PLN engagement and self-reported job performance

	PLN Mean Score	JP Mean Score
Mean	5.33	5.94
Median	5.62	6.00
Standard Deviation	1.09	0.853
Minimum	1.00	1.15
Maximum	7.00	7.00
Shapiro-Wilk W	0.915	0.890
Shapiro-Wilk p	<.001	<.001

Table 8.1.1 Correlation matrix for the relationship between perceived PLN engagement and self-reported job performance

		PLN Mean Scores	JP Mean Score
PLN Mean Scores	Spearman's rho	—	
	df	—	
	p-value	—	
JP Mean Score	Spearman's rho	0.640***	—
	df	198	—
	p-value	<.001	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 8.2 Multiple Linear Regression Analysis Predicting Job Performance (Model: PLN Engagement and Demographic Variables)

Model Fit Measures

Model	R	R ²	AIC	F	df1	df2	p-value
1	0.610	0.372	424	22.9	5	194	<.001

Note: Models estimated using sample size of N=200

Table 8.2.1 Regression Coefficients- JP Mean Score

Predictor	B	SE	t	p	Standardized β
Intercept	3.2739	0.3400	9.630	<.001	
Age	0.0454	0.0616	0.737	0.462	0.0429
Sex	-0.0313	0.0985	-0.318	0.751	-0.0182
Educ Attainment	0.0725	0.0521	1.392	0.166	0.0868
Job Position	-0.1311	0.1023	-1.281	0.202	-0.0804
PLN Mean Scores	0.4655	0.0450	10.341	<.001	0.5935

DISCUSSION

Table 3.1 presents the distribution of respondents according to sex. A majority were female (57 %), while males accounted for 43 % of the total participants. This result indicates a female-dominated composition among respondents.

The pattern corresponds closely with national civil service data. According to the Civil Service Commission's 2024 Inventory of Government Human Resources, women comprise 59.12 % of all government personnel nationwide, while men account for 40.88 %. This reflects the continuing feminization of the Philippine bureaucracy. The prevalence of female employees therefore reflects not only demographic trends but also institutional commitments to gender equality within government employment.

As reflected in Table 3.2, the data reveal that a majority of the respondents were 25–34 years old (61.5 %), followed by those aged 35–44 years (20 %). Only a small proportion were aged 45 years and above (9.5 %), and the youngest respondents, aged 18–24 years, accounted for 9 % of the total.

The predominance of respondents aged below 35 years indicates a relatively young public-sector workforce. This observation corresponds with national civil service data from the Civil Service Commission (2024), which reported that personnel under the age of 45 comprised a significant proportion of government employees across both career and non-career service categories. The CSC attributes this age profile to recent recruitment initiatives and expansion of technical and administrative roles in government agencies, which have attracted younger professionals.

The observed age distribution also parallels the trend toward generational renewal in the Philippine bureaucracy, as younger employees increasingly enter government service through entry-level and professional positions. This demographic composition is important for understanding subsequent analyses on learning engagement, given that younger employees tend to demonstrate higher digital literacy and adaptability in technology-supported learning environments.

Table 3.3 presents the educational attainment of the respondents. The data show that the majority held a bachelor's degree (70.5 %), followed by master's degree holders (22.5 %). Only a small proportion of respondents reported vocational or technical training (2 %), incomplete college education (0.5 %), or doctorate degree (1.5 %). This distribution indicates that the respondent group is well- educated, with nearly three-fourths possessing at least an undergraduate diploma.

This finding is consistent with the educational composition of the Philippine civil service, where positions in the professional and technical categories typically require at least a bachelor's degree under the Qualification Standards Manual of the Civil Service Commission (CSC, 2017). Moreover, continuing graduate education is encouraged through the CSC's Program to Institutionalize Meritocracy and Excellence in Human Resource Management (PRIME-HRM), which emphasizes professional development and postgraduate training as part of career progression in government.

Table 3.4 presents the profile of respondents by job position. The majority were classified under Technical/Professional positions (67.0%), followed by Clerical positions (28.5%), while only a small proportion belonged to Supervisory/Managerial roles (4.5%).

This distribution indicates that the respondent group is largely composed of technical and professional personnel, with a substantial representation of clerical employees. The relatively small proportion of supervisory and managerial respondents suggests that the sample primarily reflects the perspectives of non-managerial employees in the public sector.

Table 4 illustrates the mean perceived Personal Learning Network (PLN) engagement scores across agencies. The data show that DepEd ($M = 5.59$) registered the highest engagement level, followed closely by Marinduque State University ($M = 5.53$), while TESDA ($M = 5.09$) and NCCT ($M = 5.10$) obtained the lowest mean scores. The overall means, ranging from 5.09 to 5.59, indicate that respondents from all agencies demonstrate moderately high to high PLN engagement.

The relatively close range of scores suggests that participation in Personal Learning Networks (PLNs) was fairly consistent across agencies, with only slight differences in engagement levels. The standard deviations, all close to 1.0, show that most respondents had similar levels of PLN activity.

This pattern is consistent with the framework proposed by Poortman et al. (2022), who described Personal Learning Networks (PLNs) as professional structures that promote continuous collaboration, reflection, and mutual learning among practitioners. Their study emphasized that PLNs work best when organizations provide an environment that encourages shared inquiry and digital connectivity, conditions that are also evident in many education and training agencies in the public sector.

Overall, the results indicate a generally high level of perceived PLN engagement across the participating agencies in this study.

Table 5 presents self-reported job performance scores across selected agencies. The highest mean rating was observed in DepEd ($M = 6.16$), followed by DOST ($M = 6.09$). The lowest means were recorded in DAP ($M = 5.81$) and DSWD ($M = 5.82$). The agency means ranged from 5.81 to 6.16, indicating consistently high performance with only limited variation across agencies.

Standard deviations (approximately 0.64 to 1.16) suggest moderate dispersion around the means, while medians clustered near 6.00–6.31, and maximum values approached 7.00 across agencies. Collectively, these indicators point to a uniformly high level of self-reported performance among respondents across the participating institutions.

This pattern suggests that respondents across the participating agencies generally rated their job performance highly. While this pattern may be interpreted in relation to the standardized performance frameworks used in the public sector, such as the IPCR and RBPMS, the present data do not directly test the effects of these systems on the observed ratings.

Similar outcomes have been documented internationally. Van der Kolk (2022) found that performance measurement in public organizations often results in compressed score distributions, as employees across units tend to be evaluated within narrow performance ranges due to the developmental orientation of appraisal systems and the emphasis on accountability rather than punitive control.

The consistently high mean scores observed across agencies may indicate a ceiling effect, where respondents tend to rate their performance favorably, resulting in limited variability in scores. Since job performance was measured using self-reported ratings, this pattern may reflect respondents' positive self-perception rather than objective performance levels. As such, the uniformly high scores should be interpreted with caution in relation to subsequent analyses.

Despite the generally high scores, the presence of variation in the standard deviations and minimum values indicates that the responses were not completely clustered at the upper limit of the scale. This suggests that the instrument was still able to capture differences in self-reported job performance among respondents.

As reflected in Tables 6.1 and 6.1.1, when respondents were grouped according to sex, female employees obtained a slightly higher mean score ($M = 5.41$) than male employees ($M = 5.23$). However, the Mann–Whitney U test yielded a p -value of 0.231, indicating that the difference is not statistically significant.

This finding suggests that sex is not significantly associated with PLN engagement among the surveyed government employees. Both male and female respondents reported comparable levels of participation and interaction in professional learning networks,

indicating that opportunities for collaboration and resource sharing are experienced similarly across sexes.

Comparable findings were reported by Oddone (2023), whose study on university educators' use of Personal Learning Networks showed that engagement in PLNs is largely shaped by institutional context, access to digital tools, and professional motivation rather than demographic factors such as sex.

Overall, the data indicate a balanced level of PLN engagement between male and female employees, reflecting equitable access to digital learning opportunities and collaborative platforms within the Philippine public sector.

As shown in Tables 6.2 and 6.2.1, when respondents were grouped according to age, the 45–54 age group obtained the highest mean PLN engagement score ($M = 5.75$), while the 35–44 and 55–64 age groups recorded the lowest ($M = 5.15$). Despite these slight variations, the Kruskal–Wallis H test yielded a p-value of 0.739, indicating that the differences in PLN engagement across age groups are not statistically significant.

This indicates that age is not significantly associated with PLN engagement among the surveyed government employees. Respondents from different age groups exhibited comparable levels of interaction, collaboration, and participation in professional learning networks. According to Oddone (2022), professional learning through PLNs is driven more by individual motivation, access to digital platforms, and institutional support than by demographic factors such as age. The study further explains that when technological and organizational conditions are inclusive, both younger and older professionals can engage effectively in online professional learning spaces.

Overall, the findings indicate that PLN engagement is consistent across generations, reflecting that the public-sector workforce, regardless of age, shares similar access to digital learning tools and equal capacity to participate in network-based professional development.

As shown in Tables 6.3 and 6.3.1, respondents were grouped according to their highest educational attainment. The Shapiro-Wilk test results indicated that several groups did not meet the assumption of normality; therefore, the non-parametric Kruskal-Wallis test was used to determine whether PLN engagement differed across educational levels. The test produced a χ^2 value of 8.83 with a p-value of 0.183, showing that the differences in PLN engagement among the educational-attainment groups were not statistically significant.

This finding suggests that educational attainment is not significantly associated with PLN engagement. Employees from various academic backgrounds participated, collaborated, and shared resources in their Personal Learning Networks at comparable levels. The results suggest that perceived PLN engagement was generally comparable across educational-attainment groups in this study.

This result aligns with Poortman et al. (2022), who explained that professional learning networks are most effective when organizations nurture collaborative cultures and ensure equitable access to learning resources, factors that often matter more than differences in educational qualifications. Their framework emphasizes that PLN engagement depends primarily on institutional support, professional motivation, and technological accessibility.

Overall, the results suggest that PLN engagement in the public sector is an inclusive practice that promotes shared learning and professional growth regardless of employees' educational background.

As shown in Tables 6.4 and 6.4.1, when respondents were grouped according to job position, those in Supervisory/Managerial roles obtained the highest mean in perceived PLN engagement score ($M = 5.49$), followed by Technical/Professional employees ($M = 5.35$), while Clerical respondents obtained the lowest mean score ($M = 5.27$).

However, the Kruskal–Wallis H test yielded a p-value of 0.479, indicating that these differences are not statistically significant.

This suggests that job position is not significantly associated with perceived PLN engagement among the surveyed government employees. Regardless of whether respondents occupy clerical, professional, or supervisory roles, their level of participation in personal learning networks remains comparable.

Overall, the results indicate that PLN engagement is a shared professional practice across job-position categories, reflecting the broad applicability of network-based and collaborative learning in the public sector.

As reflected in Tables 7.1 and 7.1.1, when respondents were grouped according to sex, female employees obtained a slightly higher mean job-performance score ($M = 5.99$) than male employees ($M = 5.87$).

However, the Mann–Whitney U test result ($U = 4467$, $p = 0.282$) indicates that the difference is not statistically significant, suggesting that self-reported job-performance levels are comparable between male and female respondents.

Recent public-sector research supports this pattern. van der Kolk (2022) found that performance-measurement frameworks emphasizing transparency and objective indicators tend to yield consistent and compressed score distributions across demographic groups. Such systems prioritize accountability and learning over comparison, thereby minimizing variability related to sex or other personal characteristics.

Overall, the results indicate that self-reported job performance ratings were comparable across sexes in this study.

As presented in Tables 7.2 and 7.2.1, when respondents were grouped according to age, the 45–54 age group recorded the highest mean performance score ($M = 6.31$), while the 55–64 age group had the lowest ($M = 5.64$). Despite these differences, the Kruskal–Wallis H test yielded a p-value of 0.527, indicating that the variations in job-performance ratings across age groups are not statistically significant.

This suggests that age is not significantly associated with job performance among the surveyed government employees. The similarity in self-reported job performance ratings across age groups suggests that age was not significantly associated with job performance in this study. This pattern may be interpreted in relation to the standardized nature of performance evaluation in the public sector, although the present data do not directly examine the operation of these systems.

The result aligns with the model proposed by Kooij, Zacher, Wang, and Heckhausen (2020), who explained that job performance is not determined by chronological age but by an employee's ability to maintain a good fit between personal capacities and work demands through self-regulation and adaptive strategies. Their process model of successful aging at work highlights that individuals can sustain or even

improve their performance when they actively pursue learning opportunities, adjust their work behaviors, and receive organizational support such as autonomy, feedback, and fair evaluation systems.

Overall, the findings indicate that self-reported job performance ratings were generally comparable across age groups in this study.

As shown in Tables 7.3 and 7.3.1, respondents were grouped according to their highest educational attainment. The results reveal that employees with a doctorate degree achieved the highest mean job-performance score ($M = 6.74$), followed by those with vocational or technical education ($M = 6.25$), and those with incomplete graduate studies ($M = 6.17$). Meanwhile, respondents with master's degrees and high school diplomas both recorded moderate mean scores ($M = 6.12$), while those with incomplete college education ($M = 6.00$) and bachelor's degrees ($M = 5.84$) obtained the lowest mean ratings.

Despite these observed differences, the Kruskal–Wallis H test yielded a p -value of 0.204, indicating that the variations in job-performance ratings across educational attainment levels are not statistically significant. This indicates that educational attainment is not significantly associated with job performance among government employees.

This pattern suggests that educational attainment was not significantly associated with self-reported job performance in this study. Although this may be interpreted in relation to the standardized and competency-based nature of public-sector performance evaluation, the present data do not directly test the effects of these systems on the observed ratings.

Similar observations were made by Poortman et al. (2022), who noted that in professional environments that promote continuous learning and collaboration, formal education is less likely to predict performance outcomes. Instead, performance tends to depend on how well organizations foster professional learning networks (PLNs), feedback mechanisms, and shared inquiry. When institutions provide equal access to these opportunities, employees with different educational backgrounds can reach comparable levels of productivity and effectiveness.

As presented in Tables 7.4 and 7.4.1, when respondents were grouped according to job position, those in Technical/Professional roles recorded the highest mean job performance score ($M = 5.95$), followed closely by respondents in Clerical positions ($M = 5.93$), while the Supervisory/Managerial group obtained the lowest mean score ($M = 5.78$). However, the Kruskal–Wallis H test produced a p -value of 0.364, indicating that the differences in job performance scores across job-position groups are not statistically significant.

This result suggests that no statistically significant differences were observed according to job position among the respondents. Although slight differences in mean scores were observed, these variations are not sufficient to establish statistically significant differences across the three job-position categories.

Overall, the findings indicate that job performance is generally comparable across clerical, technical/professional, and supervisory/managerial roles in this study.

As shown in Tables 8.1 and 8.1.1, the respondents obtained a mean perceived Personal Learning Network (PLN) engagement score of $M = 5.33$ ($SD = 1.09$) and a mean self-reported job performance score of $M = 5.94$ ($SD = 0.853$). The Shapiro–Wilk tests

indicated that the data were not normally distributed ($p < .001$); therefore, Spearman's rank-order correlation was used to determine the relationship between the two variables.

The analysis revealed a strong, positive, and statistically significant association between PLN engagement and job performance ($\rho = 0.640$, $p < .001$).

However, this result should be interpreted with caution. Since both variables were measured using self-reported data, the observed association may be influenced by common method bias. Because perceived PLN engagement and job performance were assessed using the same instrument and respondent source, the possibility that the relationship was affected by shared method variance cannot be fully ruled out. Thus, the strength of the correlation may be overestimated and should be understood as reflecting a perceived association rather than objective or causal evidence.

In addition, the consistently high job performance scores observed across agencies suggest a possible ceiling effect, where respondents tend to rate their performance favorably, resulting in limited variability in scores. This pattern may have contributed to the strength of the observed correlation. As such, the findings should be interpreted within the context of self-reported performance measures.

This finding aligns with Brown (2023), who reported that PLNs support continuous professional growth by encouraging collaboration, critical reflection, and shared problem-solving among peers. These interactions are associated with the development of professional knowledge and work-related competencies across different organizational settings. Similarly, Vermeeren et al. (2022) observed that in public-sector organizations, employees who are provided with opportunities for learning and peer collaboration tend to report higher levels of employability, competence, and overall performance.

Overall, the results indicate that PLN engagement is associated with job performance among government employees. This highlights the relevance of peer-based, digital, and collaborative learning initiatives within public institutions, in relation to perceived job performance.

As shown in Tables 8.2 and 8.2.1, multiple linear regression analysis was conducted to examine the extent to which perceived Personal Learning Network (PLN) engagement and selected demographic variables predict job performance. The model was statistically significant, $F(5, 194) = 22.9$, $p < .001$, explaining 37.2% of the variance in job performance ($R^2 = 0.372$).

Perceived PLN engagement was the only statistically significant predictor of job performance ($B = 0.4655$, $\beta = 0.5935$, $p < .001$). In contrast, age ($p = 0.462$), sex ($p = 0.751$), educational attainment ($p = 0.166$), and job position ($p = 0.202$) were not statistically significant predictors. These results indicate that PLN engagement remains a significant predictor of job performance even when demographic variables are considered.

Consistent with the correlational design of the study, these findings indicate a predictive association between PLN engagement and job performance and do not imply a causal relationship.

Summary Of Findings

1. Profile of the respondents with respect to their sex, age, educational attainment, and job position

In terms of sex, results showed that the majority of the respondents were female (57%), while 43% were male. This female predominance mirrors the current demographic composition of the Philippine bureaucracy. The result indicates that gender representation in the sample aligns with national public-sector trends. For age, most respondents belonged to the 25–34 age group (61.5%), followed by those aged 35–44 years (20%). The smallest proportion came from the 55–64 age group (1.5%). This distribution suggests that the participating government agencies are largely composed of young professionals, reflecting the generational renewal occurring within the public service as younger employees enter technical and administrative positions. With respect to educational attainment, a significant majority held at least a bachelor's degree (70.5%), while 22.5% had completed a master's degree. Only a few respondents had vocational, doctoral, or incomplete graduate-level studies. This shows that most participants possessed strong academic qualifications, consistent with the professional standards required for public-sector positions in the Philippines. In terms of job position, the majority of the respondents were in Technical/Professional roles (67.0%), followed by Clerical positions (28.5%), while only a small proportion were in Supervisory/Managerial roles (4.5%). This indicates that the respondent group was largely composed of personnel in non-managerial technical and professional functions within the public sector.

2. Personal Learning Network (PLN) engagement scores of the respondents

The respondents obtained an overall mean PLN engagement score of 5.33, indicating a high level of involvement in online and collaborative learning activities. Among the agencies, the Department of Education recorded the highest mean score ($M = 5.59$), followed by Marinduque State University ($M = 5.53$). Slightly lower mean scores were observed in TESDA ($M = 5.09$) and the National Council for Children's Television (NCCT) ($M = 5.10$). Despite these small variations, all agencies demonstrated moderately high to high levels of perceived PLN engagement. The narrow range of mean scores suggests that PLN engagement was relatively consistent across participating agencies in this study.

3. Self-reported Job Performance scores of the respondents

The respondents reported consistently high self-reported job performance scores across all participating agencies, with an overall mean score of 5.94. The Department of Education ($M = 6.16$) and the Department of Science and Technology ($M = 6.09$) posted the highest mean ratings, while the Development Academy of the Philippines ($M = 5.81$) and the Department of Social Welfare and Development ($M = 5.82$) had slightly lower averages. The narrow range of scores, between 5.8 and 6.2, indicates that respondents across agencies generally rated their job performance highly. However, this consistently high pattern should be interpreted with caution because the job performance scores were self-reported and may reflect a possible ceiling effect.

4. Differences in perceived PLN engagement when respondents were grouped according to their profile variables

Results showed no significant differences in PLN engagement across sex, age, and educational-attainment groups. Female respondents had a slightly higher

mean PLN engagement score ($M = 5.41$) than males ($M = 5.23$), but this difference was not statistically significant, as shown by the Mann–Whitney U test ($U = 4416$, $p = 0.231$). For age, respondents aged 45–54 years had the highest mean PLN engagement ($M = 5.75$), followed by those aged 35–44 and 55–64 years ($M = 5.15$). However, the Kruskal–Wallis test ($\chi^2 = 1.98$, $p = 0.739$) showed no significant differences across age groups. With respect to educational attainment, respondents with doctorate degrees reported the highest mean PLN engagement, followed by those with master’s and bachelor’s degrees. Nevertheless, the Kruskal–Wallis test ($\chi^2 = 8.83$, $p = 0.183$) indicated that these differences were not statistically significant. Overall, the findings demonstrate that PLN engagement in the public sector is not significantly associated with demographic characteristics, reflecting equitable access to digital-learning opportunities and a shared motivation to engage in professional knowledge exchange.

5. Differences in self-reported Job Performance when respondents were grouped according to their profile

Findings revealed no statistically significant differences in self-reported job performance across sex, age, educational attainment, and job position. Although female respondents recorded a slightly higher mean job-performance score ($M = 5.99$) compared to males ($M = 5.87$), the Mann–Whitney U test ($U = 4467$, $p = 0.282$) confirmed that the difference was not significant. For age, the highest job-performance mean was observed among respondents aged 45–54 years ($M = 6.31$), while the lowest was among those aged 55–64 years ($M = 5.64$). The Kruskal–Wallis test ($\chi^2 = 3.19$, $p = 0.527$) again showed no significant differences. In terms of educational attainment, respondents with doctoral degrees had the highest mean job-performance score ($M = 6.74$), while those with bachelor’s degrees recorded the lowest ($M = 5.84$). However, the Kruskal–Wallis test ($\chi^2 = 8.49$, $p = 0.204$) indicated that these variations were not significant. Similarly, slight variations in mean job-performance scores were observed across job positions; however, the Kruskal–Wallis test indicated that these differences were not statistically significant ($\chi^2 = 2.02$, $p = 0.364$).

Taken together, the results suggest that demographic characteristics are not significantly associated with job performance; the following explanation is interpretive and should be read with caution: possibly due to the standardized competency-based performance systems implemented across government agencies.

6. Relationship between perceived PLN engagement and self-reported Job Performance

The study found a strong and positive association between perceived PLN engagement and self-reported job performance, with a Spearman’s rho of 0.640 ($p < 0.001$). This indicates that higher levels of PLN engagement are associated with higher reported job performance.

Multiple linear regression analysis further showed that the model including perceived PLN engagement and selected demographic variables was statistically significant, $F(5, 194) = 22.9$, $p < .001$, and explained 37.2% of the variance in job performance ($R^2 = 0.372$). Perceived PLN engagement was the only statistically

significant predictor of job performance ($B = 0.4655$, $\beta = 0.5935$, $p < .001$), while age, sex, educational attainment, and job position were not statistically significant predictors.

However, these findings should be interpreted with caution, as both variables were measured using self-reported data. The use of a single data source may introduce common method bias, which can inflate the strength of the observed relationship. In addition, the consistently high job performance scores suggest a possible ceiling effect, where respondents tend to rate their performance favorably.

Despite these limitations, the results provide meaningful insight into employees' perceptions of how engagement in personal learning networks relates to, and predicts, self-reported work performance in the public sector.

Conclusions

Drawing from the results of the study, the following conclusions were established. These conclusions are grounded in a thorough interpretation of the data and present the essential insights derived from the research. They summarize the meaningful patterns observed in the study and articulate their implications for professional learning and performance in the public sector.

The demographic profile of the respondents shows a young, highly educated, and predominantly female public-sector workforce. This composition suggests that government agencies are staffed by individuals who possess the foundational qualifications and digital familiarity needed to participate effectively in Personal Learning Networks. Such characteristics reflect a workforce that is generally well-positioned to engage in technology-supported and self-directed learning practices.

The consistently high levels of perceived PLN engagement across selected agencies indicate that public-sector employees actively use digital platforms and professional networks to support their learning. This suggests that PLNs appear to serve as an important part of how employees access information, exchange knowledge, and pursue continuous professional development, demonstrating a shift toward more flexible and informal learning pathways in government.

The high self-reported job performance ratings reported by respondents indicate that participants generally perceived their performance positively across the participating agencies. This pattern may reflect similarities in how respondents assessed their work performance using indicators adapted from the IPCR system. However, this interpretation is based on self-reported data and should be viewed with caution, as consistently high scores may indicate a possible ceiling effect.

The absence of significant differences in perceived PLN engagement across sex, age, educational attainment, and job position indicates that demographic characteristics do not significantly influence how employees engage in networked learning. This finding suggests that PLN participation is broadly accessible and inclusive, with employees from diverse backgrounds equally capable of leveraging digital and collaborative learning opportunities.

The results showing no significant differences in self-reported job performance across demographic groups indicate that, within this study, sex, age, educational attainment, and job position were not significantly associated with self-reported job

performance. Although this pattern may be interpreted in relation to the standardized and competency-based nature of public-sector performance evaluation systems, such interpretation should be made with caution because the data do not directly test the operation or fairness of those systems.

The findings show that perceived PLN engagement is significantly associated with self-reported job performance among the respondents. Employees with higher levels of PLN engagement also tended to report higher levels of job performance.

The regression analysis further showed that perceived PLN engagement significantly predicted job performance even when selected demographic variables were considered. In contrast, age, sex, educational attainment, and job position were not statistically significant predictors in the model. This suggests that the predictive association observed in the study was more strongly linked to perceived PLN engagement than to the demographic characteristics included in the analysis. However, these findings should still be interpreted as associative and predictive rather than causal, given that both variables were measured through self-reported data. The observed relationship may also have been influenced by common method bias and the possible ceiling effect in job performance scores.

Recommendations

The findings of this study highlight the relevance of individual initiative, networked learning, and self-directed engagement in professional development in the Philippine public sector. The proposed program is designed to be implemented using existing systems and structures within government agencies. Rather than requiring the development of new platforms or policies, the recommendations focus on integrating PLN practices into current learning and development mechanisms to support feasibility and scalability. To strengthen these outcomes, a set of strategic recommendations is proposed to help agencies and learning institutions integrate informal and networked learning into their existing systems. These recommendations are organized under three key areas: Institutional Infrastructure, Individual Empowerment, and Continuous Evaluation, with detailed implementation strategies provided in Appendix F.

At the institutional level, government agencies are encouraged to recognize and support PLN engagement as part of their official learning and development frameworks. This includes creating digital spaces for collaboration, such as utilizing existing platforms (e.g., Microsoft Teams, Google Workspace, or agency intranet systems) as centralized spaces for PLN engagement, and developing policies that acknowledge informal learning as a legitimate component of work. It is also recommended that agencies encourage the integration of PLN activities within existing learning and development schedules or flexible work arrangements. It is also recommended that agencies introduce recognition and reward systems that value employees not only for attending formal training programs but also for curating, sharing, and applying knowledge from their networks. These measures can help create an environment where learning is continuous, collaborative, and integrated into the organization's daily operations.

In terms of individual empowerment, the study highlights that PLN effectiveness is shaped by an employee's personal effort rather than fixed characteristics like age or

educational attainment. For this reason, professional development should shift its focus from purely content-based training to helping employees build the skills needed to manage and sustain their own learning networks. This includes training on identifying reliable sources of information, participating actively in online communities, and communicating effectively in collaborative environments. Agencies may also introduce mentorship programs that connect experienced PLN users with newer employees to encourage peer learning and knowledge exchange across teams and generations.

Finally, in the area of continuous evaluation, government agencies are encouraged to develop systems for monitoring and measuring the effects of networked learning on employee performance. These systems can include indicators that track engagement in PLN activities and assess how knowledge gained through these networks is associated with work outcomes. Partnerships between government institutions and academic organizations are also recommended to conduct long term studies on the impact of PLN-based learning. These studies will help assess the potential contributions of networked learning approaches and guide policy decisions on sustainable professional development practices in the public sector.

In summary, these recommendations aim to guide the public sector toward becoming a connected learning ecosystem where employees take an active role in their professional growth. By institutionalizing PLN engagement, fostering collaboration, and evaluating outcomes consistently, public organizations can cultivate a culture of shared learning and innovation that supports improved learning practices and performance outcomes and better public service.

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