

ANALYSIS OF INTEGRATED AND COLLABORATIVE WORKPLACE LEARNING CONCEPTS AS AN IMPLEMENTATION OF WORK-INTEGRATED LEARNING FOR CIVIL SERVANTS (ASN)

Perdhana Ari Sudewo^{1*} and Nabila Syahwa Amini²

^{1*}Indonesian Food and Drug Authority (BPOM)
email: perdhana.ari@pom.go.id

²Universitas Padjadjaran
email: nabila21006@mail.unpad.ac.id

Article History

Submitted: 22 January 2025
Review: 11 March 2025
Publish: 28 July 2025

Keywords:

Development;
Competency; Integrated;
Collaborative; Workplace.

ABSTRACT

Law Number 20 of 2023 concerning Civil Servants (ASN) mandates competence development through work-integrated learning. As learner behaviors evolve and the implementation of integrated learning becomes mandatory, the approach to civil servant competence development is transforming. This includes the adoption of *experiential learning* and *learning in the flow of work*. Given the large number of civil servants and the limitations of traditional classroom training capacity and budget, a more flexible approach to learning innovation is needed. This study analyzes the implementation of integrative and collaborative workplace learning within government agencies, using the Indonesian Food and Drug Authority (BPOM) as a case study. The methodology used includes literature review and focus group discussions (FGDs). The research findings indicate that integrative and collaborative learning, when designed with the support of workplace facilitators and a system for recognizing learning achievements, can be an effective alternative to traditional classroom training. This approach enables adaptive and continuous learning, aligning with the competency needs of functional positions. This study recommends the government to systematically adopt this learning model, provide supporting infrastructure and an ecosystem, and conduct regular evaluations to ensure program alignment with organizational needs.

INTRODUCTION

Competency development is mandatory for every civil servant in accordance with Law Number 20 of 2023 concerning Civil Servants. The purpose is to ensure that civil servants possess relevant competencies that align with organizational needs and changes in the strategic environment. Competency development is not limited to conventional, class-based training. Instead, it can be integrated as an important part of the assignment and interconnect with other civil servant management functions. Moreover, learning is not limited to a single agency, but spans across agencies, to connecting civil servants with one another. Government agencies face a notable challenge in implementing integrated learning. Their established learning culture, built over many years, relies on classroom-based training, especially for public policy education ([Dunlop 2018](#)). Alongside

* Penulis Korespondensi
Email: perdhana.ari@pom.go.id

competency development, the civil servant performance management is also undergoing a significant transformation due to new regulations. Civil servant performance management is implemented through a collaborative and flexible work mechanism, oriented towards civil servants' work outcomes and behavior, fulfilling leadership and organizational expectations to achieve organizational objectives, and conducted through intensive performance dialogues. The Minister of State Apparatus Empowerment and Bureaucratic Reform (PAN dan RB) Regulation Number 6 of 2022 on Civil Servant Performance Management states that all civil servants must continuously improve their performance, which are represented through meeting organizational expectations, as communicated by their superiors or leaders.

Transforming civil servant competency development and performance management is an effort to promote merit-based systems. This ensures that civil servants are not only competent and perform well in delivering public services, but also in navigating the various challenges of digital change in the era of Industry 4.0 and Society 5.0. Based on a 2014 global study, two out of three employees reported not having enough time to complete all their assignments. Furthermore, the average employee could only dedicate 1% of their week-approximately 24 minutes-to focused, formal learning for competency development. Employees primarily learn using internet search engines or through online learning platforms ([Tauber and Wang-Audia 2014](#)). Another research, from Bersin, revealed that 75% of employees experience work-related stress and face barriers in meeting their learning and competency needs to stay relevant with the latest job demands and required skills ([Skoglof 2022](#)). Given the high workload, employee training is often viewed as important but not urgent for staying relevant in the workplace. Instead, there is a greater focus on meeting short-term performance targets. This frequently comes at the expense of employee competency development, which can be significantly detrimental to the organization in the long run. On the other hand, to achieve their performance targets, employees need new competencies that are more technical and specific. This is crucial given the constantly evolving landscape of business and government sectors, driven by advancements in technology and science ([Bersin et al. 2023](#)).

The public sector has also experienced changes in learner behavior, driven by the impact of advancing information technology ([Khrykov et al. 2022](#)). In Indonesia, civil servants, as the primary players in government administration and public service, must possess the necessary competencies to fulfill their job duties and responsibilities. In civil servants competency development, the adopted Corporate University concept emphasizes that all learning and development initiatives for employees should produce a tangible contribution and positively impact to both individual and organizational

performances ([Lembaga Administrasi Negara 2023](#)). To achieve these goals, it's essential for civil servants to engage in continuous learning that's integrated into their work. This ensures that their competencies remain relevant and helping to achieve optimal performance. However, the significant potential of workplace learning -as a part of the Corporate University learning strategy- has not been fully optimized for civil servants competency development ([Firdaus 2021](#)). Moreover, shifts in employee learning behavior present various challenges for civil servants competency development. These include ensuring that learning hours genuinely impact both individual employee performance and overall organizational performance ([Sudewo and Sulastrri 2022a, 2022b](#)), the effectiveness of self-learning module for civil servants ([Palupi, Meliyanti, and Aryanto 2021](#)), developing competency development strategies suitable for the Industrial Revolution era ([Wulandari 2021](#)), and providing convenient and suitable learning platforms and media for civil servants.

The changing landscape of the professional world, driven by advancements in technology and science, has introduced new competencies that employees are required to possess. This applies not only to the private sector, but also to the public sector. However, in practice, many implementations are often falling short of the regulations. An evaluation conducted by the National Institute Public Administration (LAN) in 2018 indicated that the management of functional positions in Indonesia has not yet achieved full professionalism ([LAN, 2018](#)). One of the indications of it is that the appointment and promotion processes for functional positions tend to be carried out with broad approach and insufficient detail. They lack thorough evaluations based on specific competency or specialized requirements that supported by competency certification. Consequently, the assignment of functional officials is not consistently in line with the needs of government agencies. Moreover, not all functional positions have systematic standards, patterns, and career paths. This situation further exacerbates the problems faced by functional officials. The development of competencies for functional positions is often inconsistent and poorly integrated with other civil servant management systems. This hinders the sustained progress of competency development programs for functional officials ([Firmansyah 2023](#)). Furthermore, not all functional positions have job competency standards ([Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi 2024](#)), let alone specific work competency standards tailored to the detailed specialization and expertise required of a functional official.

As of early 2024, the number of civil servants in Indonesia reached 4,465,768 ([Badan Kepegawaian Negara 2024](#)). Given that every civil servant is required to undergo competency development, formulating programs and activities for such a large group presents a unique challenge.

In addition to challenges related to infrastructure and regulations, there's also the budgetary challenge, especially if all training must occur in traditional classroom settings. Referring to Government Regulation Number 11 of 2017 concerning Civil Servant Management, every civil servant must participate in competency development activities for at least 20 learning hours per year. If the mandatory 20 learning hours must be completed through classical training, it would require at least three days of implementation and an approximate cost of Rp. 2,150,000 per employee. Based on Government Regulation No. 60 of 2021 regarding Non-Tax State Revenue at LAN, the government would have to prepare a minimum budget of 9.6 trillion rupiah per year to fulfill the competency development requirements for civil servants, excluding participant accommodation costs. Meanwhile, the correlation between the number of learning hours completed by employees and the improvement in employee performance remains questionable ([Sudewo and Sulastris 2022a, 2022b](#)).

According to the National Institute of Public Administration Regulation No. 10 of 2018 on Civil Servant Development, competency development is encouraged not just through traditional classroom settings, but also non-classical approaches using diverse learning methods. This offers civil servants a wider opportunity to improve their competencies through various forms of learning activities. From a global standpoint, the need to acquire new skills in the professional world is unavoidable given the evolving industrial, technological, and scientific landscape. Research indicates that many future-oriented organizations are beginning to develop the ability to master new competencies, adopt scientific and evidence-based approaches, and update employees' professional experience ([mercer 2020](#)). The evolving global landscape is also shifting the priorities of international companies in their efforts to develop employee competencies. Ninety-eight percent of companies report significant competency gaps due to global changes, with experiential learning becoming a top priority for addressing these discrepancies ([mercer 2023](#)). This situation encourages every organization to develop various innovations in technology and learning approaches.

In every year, new approaches and methods emerge. For example, the learning in the flow of work, a concept that's been increasingly adopted since 2022 ([Bersin 2022](#)). Educational technology, such as Learning Management Systems (LMS), have evolved into Learning Experience Platforms (LXP) and other technologies ([Wilson and Hiipakka 2019](#)). In the development of civil servant competencies in Indonesia, several government agencies are introducing various innovations in employee learning. This aims to enhance the adaptive capacity of learning and address the current competency requirements of civil servants. One way to achieve it is by optimizing technology through the implementation of e-learning, which has become a new learning culture for civil servants. For

instance, the Ministry of Law and Human Rights has adopted this as part of its Corporate University learning strategy to enhance access to learning and training with positive results ([Lukito and Haryono 2020](#)). Furthermore, the innovation of blended learning, combining classical and non-classical training, has become an alternative choice for government agencies to provide employees with a more holistic learning experience ([Samsara 2023](#)). Innovations in civil servant competency development also include creating a responsive curriculum that addresses real work problems through a problem-based learning approach and dynamic learning concepts. The curriculum design, based on real work problems and emphasizing dynamic and flexible learning, is crafted to improve the effectiveness of civil servant training. As a result, they can address the challenges of contemporary developments and improve civil servants' managerial, technical, and sociocultural competencies ([Soantahon 2023](#)). Various innovations in civil servant learning approaches demonstrate that a paradigm shift in the learning process can lead to changes in attitude and behavior, which in turn impact improved work performance. This includes meeting the requirement for civil servants to acquire new competencies, as evidenced by several empirical studies on civil servant competency development ([Handayani 2016](#)). The demand for acquiring new competencies, relevant to the world's dynamics, also influences the increasing need for employee learning. A survey conducted in the Asia Pacific region revealed that 44% of employees believe global shifts and advancements demand the mastery of new competencies distinct from those they currently possess. However, only 48% of employees stated they had a clear understanding of the required competency development. Furthermore, the abilities to adapt, work flexibly, collaborate, and think critically are identified as crucial core competencies, surpassing the need for technical skills directly related to an organization's core business ([pwc 2023](#)).

Meanwhile, the main challenge in Indonesia's Apparatus Human Resources management is the competency and motivation, especially among functional officials. This is largely driven by a misalignment between the necessary competency requirements and the development activities ([Lembaga Administrasi Negara 2018](#)). According to the Asian Development Bank (2021) the skills and competencies of Indonesian civil servants remain broadly subpar or fall short of expectations, despite adequate educational attainment. The 10:20:70 learning model strategy, synonymous with the Corporate University concept, has been mandated by Government Regulation No. 17 of 2020. Furthermore, LAN Regulation No. 6 of 2023 provides guidance for its implementation. It's crucial to ensure this strategy is effectively put into practice, not merely adopted as a buzzword to appear “up-to-date” and modern. In the 10:20:70 learning model, direct practical experience-integrated with daily work-forms the dominant part of employee competency development, representing about 70% of the

learning process ([Fauziah and Prasetyo 2019](#); [Mukhtaromin 2020](#); [Nurhayati 2022](#)). While the concept of learning within a Corporate University is relatively easy to grasp, the development of civil servant competencies presents a significant challenge, especially in lower-middle-income nations. The learning process involves a more complex approach compared to common individual or organizational learning. Formulating a solution for this condition is difficult because it requires overcoming a range of unique characteristics, such as cultural, economic, political, religious, and social aspects, alongside psychological barriers and practical constraints in implementing competency development ([Blindenbacher and Nashat 2010](#)). Nevertheless, to ensure sustainable development, continuous efforts are essential to enhance the quality, capacity, capability, and competency of civil servants through employee learning programs. The State, through its government agencies, is obligated to provide and facilitate the competency development requirements of their employees. This includes the optimal use of technology. Learning is not limited to traditional classroom settings, but also applied directly in the workplace. The learning process is collaborative with supervisors, field facilitators, and other employees. It is integrated with the employees duties and responsibilities, so that it directly supports their job performance. The Corporate University learning concept must be continuously developed and adapted to global trends. This includes incorporating the innovative *learning in the flow of work* approach for staff development ([Bersin 2018b](#)), and other integrated and collaborative learning approaches in the workplace

Given above foundation, this study aims to develop a concept for integrated and collaborative workplace learning as an alternative for fulfilling competency development obligations within ASN management. This will involve a thorough analysis of existing research data and information. The research was conducted at the Indonesian Food and Drug Authority (BPOM), a government agency, with a case study on the competency development of its functional Drug and Food Supervisory Officials (PFM). With over 3,500 functional PFM spread across its central office and 86 Technical Implementation Units (UPT), BPOM faces distinct challenges in competency development. In accordance with the Minister of State Apparatus Empowerment and Bureaucratic Reform Regulation No. 13 of 2024, every PFM is required to hold a competency certificate as a prerequisite for performing duties within the scope of Drug and Food supervision. BPOM was selected as the research subject because there is a significant challenge in ensuring every PFM possesses the required competency certificate for carrying out drug and food supervision—across functions like standardization, assessment, inspection, enforcement, testing, and counseling. BPOM must develop new approaches for both competency development and certification for its PFM functional officials.

One of the steps is to fully implement work-integrated learning within the PFM competency development strategy. The objective of this learning and competency development approach is to ensure that all PFM across Indonesia are competent and possess the required competency certificates to carry out drug and food supervision. Innovation in civil servant learning and competency development is essential to ensure that every civil servant possesses the competencies required by the organization.

Employee learning must also be integrated with daily work activities ([Skoglof 2022](#)). The main challenge is that the learning needs of employees can hardly be fully met by existing education and training institutions using traditional classroom-based methods ([Saydam 2006](#)). Furthermore, strengthening government capacity and capability through employee competency development is a crucial factor that needs more attention. This is because it contributes to improving government performance in reducing poverty and achieving the Millennium Development Goals, especially in lower-middle-income countries ([Blindenbacher and Nashat 2010](#)). Integrated and collaborative competency development is also expected to lay the foundation for building a learning culture and ecosystem within government institutions. This will encourage every civil servant to continuously grow and improve their competencies, remaining relevant to the needs of the organization and its strategic environment. Given conditions mentioned above, this study aims to analyze the implementation of integrated and collaborative workplace learning for civil servants, using BPOM as a case study. Subsequently, it explains how this concept can be optimized as an effective, efficient, and sustainable alternative for competency development.

LITERATURE REVIEW

Work-Integrated Learning (WIL) is an educational approach that directly links the learning process with real-world work contexts. This allows participants to develop competencies through active involvement in daily professional tasks ([Patrick et al. 2008](#)). WIL integrates formal learning or training curricula with workplace learning through experiential learning, project and problem-based learning, mentoring, and reflective learning. In the public sector, this approach directly helps enhance the connection between civil servant competency development and organizational needs.

Aligning with WIL, collaborative learning is an approach that emphasizes cooperation among individual employees to achieve shared learning objectives. This learning approach involves active interaction, the exchange of ideas, and shared responsibility among employees as they work together to solve problems and develop solutions ([Dillenbourg 1999](#)). Workplace collaboration is not only

creating a more dynamic learning environment, but also strengthens the development of a mutually supportive organizational learning ecosystem and culture. Within this framework, experiential learning is a highly relevant approach to implement, as it uses direct experience as the primary source of learning. Experiential Learning is a learning approach that emphasizes the importance of direct experience in the learning process. This concept was introduced by David A. Kolb in his 1984 book, *Experiential Learning: Experience as the Source of Learning and Development*. It was developed with reference to previous scholars in the field of development and learning, such as John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers, and others (Kolb and Kolb 2009). Kolb argued that effective learning occurs through an experiential cycle involving four stages. These stages are: Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation. Together, they form the experiential learning cycle (figure 1).

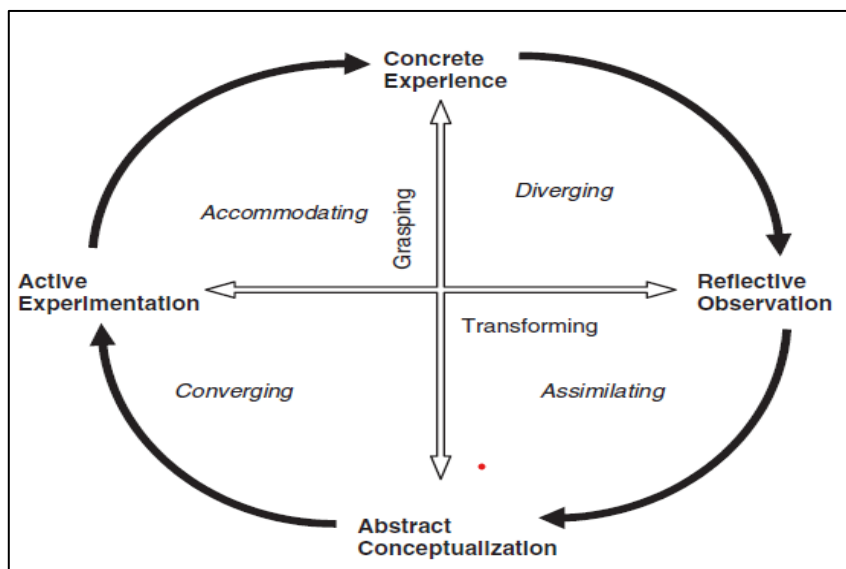


Figure 1. Experiential Learning Cycle
Sumber: Kolb and Kolb (2009)

For experiential learning to be effective, not all experiences can be automatically transformed into meaningful learning. It requires adequate structure and support to facilitate it (Merriam and Bierema 2013). Experiential learning is distinct from simply learning from experience. Usher and Solomon, as cited in Moon (2013) differentiate between *learning from experience* and *experiential learning*. They define experience in the context of *learning from experience* as any event occurring in daily life. In contrast, experience within *experiential learning* refers to a specific, designed experience that delivers knowledge and competencies as learning material through particular approaches like observation and reflection. This opinion is further supported by Evans (as cited in

[Moon 2013](#)) who stated that the experiential learning method can be interpreted as a situation where the learning process is conducted through a formal competency development program. John Dewey (1897) dalam [Kolb & Kolb \(2009\)](#) as cited in [Kolb & Kolb \(2009\)](#), highlighted a crucial aspect of learning: the process must include feedback on the effectiveness of the learning activities. All of the learning process is relearning, as the most effective way of learning is to uncover a learner's existing beliefs and ideas about a topic. This allows those initial thoughts to be examined, tested, and integrated with new, better ideas. This approach by John Dewey is often also called *learning by doing*.

In essence, experiential learning is a teaching method that aims to activate learners, enabling them to build their own knowledge and skills, as well as values and attitudes, directly through experience and practice. The experiential learning method uses experience as both a learning medium and a catalyst to encourage learners to develop their capacities and abilities throughout the learning process. Learning occurs through reflection and a meaning-making process derived from direct experience, whether in daily tasks or in specific work assignments ([Bath 2002](#); [Cahyani 2009](#); [Sudjana 2005](#)). It is important to distinguish that while experiential learning focuses on individual experience-based learning mechanisms, work-integrated learning and collaborative learning place greater emphasis on the systems and structures of collective learning that occur in the workplace, involving organizational arrangements and facilitators. These three approaches will not optimal when implemented separately. They become much more effective when integrated to support collaborative learning that is embedded directly into the work itself.

Implementing these three approaches within an integrated learning framework has its challenges, especially in the public sector within government agencies. This is particularly true when compared to their application in formal educational settings. First, there are challenges related to the structural and cultural characteristics of government organizations. These are often hierarchical and bureaucratic, which can potentially hinder changes and innovations in employee learning. Experiential learning needs a flexible learning environment that is open to innovation, along with supportive backing from everyone involved in the learning process. In many government organizations, rigid, hierarchical, and strict bureaucratic cultures often hinder the creation of space for experimentation, which is essential for supporting the learning process at the core of experiential learning ([Edward, Adnan, and Khaidir 2024](#); [Zulkarnain 2022](#)). The next challenge involves limitations in resources and infrastructure. Developing learning modules based on experiential learning requires investment in technology and preparing workplace learning facilitators who are skilled in interactive teaching methods. Experiential learning needs good supporting infrastructure to

boost its effectiveness ([Salsabila and Agustin 2024](#)). This situation highlights the need for strategic planning to integrate experiential learning into the integrated competency development system within the public sector ([Zulkarnain 2022](#)). Another challenge involves adapting the concept of experiential learning to the specific tasks and objectives of public sector organizations within an integrated learning approach. This adaptation must consider the achievement of public service performance targets and the Accountability of Government Agency Performance (AKIP). Consequently, the development of an experiential learning-based curriculum must be directly relevant to the daily operational work of government agencies and government policy. This must be achieved without disregarding innovation in employee learning processes. Experiential learning and collaborative learning approaches integrated in work, requires developing new performance indicators. These indicators must be capable of measuring learning outcomes holistically, encompassing both qualitative and quantitative aspects ([Salsabila and Agustin 2024](#)).

The implementation of experiential learning methods has evolved into diverse forms. Some forms of the experiential learning model include project-based learning and problem-based learning. More recently, the method of learning in the flow of work has also emerged, which is relevant to the concept of work-integrated learning. Project Based Learning (PjBL) is a teaching approach that focuses on developing a product or final outcome from a project undertaken by the learners ([Widiawati, Sarifah, and Nurjannah 2023](#)). Menurut [Thomas \(2000\)](#), According to [Thomas \(2000\)](#), PjBL doesn't just focus on the final outcome, but also on the learning process that occurs throughout the project's duration. The success of PjBL heavily relies on thorough planning, support from educators or learning facilitators, and the availability of adequate resources ([Krajcik and Blumenfeld 2006](#)). Learning facilitators need to design projects that align with learning objectives and ensure that learners have access to the necessary tools and information to complete the project. Nowadays, PjBL is becoming increasingly integrated with technology, allowing learners to use digital tools and collaborative platforms in the planning, execution, and presentation of their projects ([Bell 2010](#)). Additionally, PjBL is increasingly recognized as an effective method for developing 21st-century competencies, such as creativity, collaboration, and problem-solving. Studies show that PjBL not only improves conceptual understanding but also boosts learner motivation and engagement in the learning process ([Dewey 1986](#); [Kokotsaki, Menzies, and Wiggins 2016](#)).

Meanwhile, Problem-Based Learning (PBL), a teaching approach that emphasizes solving real-world problems as a learning medium. This method encourages deep, active learning. In PBL, learners face complex situations or problems and must collaborate to find solutions. This approach encourages

the development of critical thinking, analytical, and collaborative skills ([Barrows 1996](#)). This approach was initially introduced in the context of medical education around the 1960s ([Barrows 1996](#)). However, it has now been adopted across various disciplines and educational levels ([Hmelo-Silver and Eberbach 2011](#)). PBL encourages learners to actively seek solutions to problems they encounter, while also learning various new approaches to problem-solving. According to [Savin-Baden \(2000\)](#), PBL creates a dynamic learning environment where learners are actively involved in the learning process and directly solve problems, not just passively receiving information from the learning facilitator. In this context, learners learn to identify problems, formulate questions, search for relevant information, and develop solutions to those problems. Additionally, PBL encourages learners to collaborate with others, indirectly enriching their learning experience ([Johnson and Johnson 1987](#)).

With the evolving needs for workplace competencies and changes in modern learner behavior, experiential learning has developed into the concept of learning in the flow of work. This is a contemporary approach to employee learning and competency development ([Bersin 2018b](#), [2022](#); [Deloitte 2019](#); [Tauber and Wang-Audia 2014](#)). Learning in the flow of work is a concept for employee learning within an organization that is aligned and integrated with employees' work processes. It's implemented by integrating employee learning directly with the organization's work systems. This includes integrating various aspects of work with its execution through different learning approaches and technologies ([Bersin 2018a](#)). Learning in the flow of work can be defined as a learning process carried out as part of an employee's daily work ([Tupper and Ellis 2023](#)). According to the Forbes Technology Council ([Chresomales 2021](#)), this learning model promotes a unique learning experience for employees, while also increasing their engagement and productivity. Learning happens within the actual work context, making it more applicable and relevant. Employees have access to learning resources and materials as needed for their work, which helps them acquire information more effectively. Through learning in the flow of work, employees can learn anytime and anywhere by using multiple learning technologies, as well as by learning alongside their work teams, superiors, or colleagues ([Bersin 2022](#)). In this approach, the learning facilitator's role shifts to become an information curator for employees, ensuring they receive the right information and learning materials. The information curator provides immediate feedback in the workplace, which also serves as a form of employee performance coaching. The role of an employee's supervisor, as someone with significant work experience, is crucial for providing feedback and facilitating learning within the employee's workflow ([Lombardozi 2016](#)).

Integrated learning through collaborative learning, PjBL, PBL, or learning in the flow of work all emphasize a focus on the learning process for each individual employee. In practice, this learning concept requires attention to three main principles for building a learning culture and ecosystem ([Tupper and Ellis 2023](#)). First, learning must be integrated as an important part of an employee's job. This learning process isn't separate from daily tasks and responsibilities. Instead, it becomes a component of the employee's performance plan. Therefore, employees can learn from every activity and work experience, making learning and work a unified whole. Second, learning needs to be active. Employees proactively engage in the learning process through direct work experience in the workplace. This learning should align with job duties and employee performance plans, be conducted consistently and continuously, and involve various relevant parties. Finally, learning needs to become part of the routine. Competency development should not be a separate activity. Instead, it should be a routine within daily work. This way, learning happens collectively and becomes part of the team's and organization's learning culture.

In experiential learning, which is based on employees' real-world experiences, it's crucial to acknowledge or recognize the competencies gained by employees as learners. Recognition of Prior Learning (RPL) becomes relevant in this context for acknowledging the learning outcomes achieved by learners. RPL is the recognition of an individual's previous learning, regardless of where or when it occurred, thereby validating diverse individual learning experiences ([Guimarães and Mikulec 2020](#)). This validation process is crucial for individuals who haven't had access to formal education but possess essential skills and knowledge gained through work or experience. Recognizing these competencies can boost an individual's self-esteem and confidence. It also paves a path for individuals to achieve academic credentials that accurately reflect their skills in the professional world ([Priadi et al. 2019](#)). Furthermore, RPL can foster an organization's social responsibility by creating collaboration among universities, industries, and the community ([Roy and Marsafawy 2021](#)). In its implementation, it must be ensured that RPL is carried out with strong quality assurance for both the process and the results. This guarantees that the recognized learning outcomes of the learners truly reflect their capabilities ([Stephens 2022](#)). The need for standardized assessment methods, consistent with those used in formal learning contexts, is essential to ensure the quality and validity of RPL outcomes ([Tuomainen 2018](#)). Recognizing competencies gained by learners through prior informal learning can lead to a transformative learning experience for individuals, fostering critical thinking and self-reflection ([Moss and Brown 2014](#)). The transformative aspect of learning is important for employees, who often bring extensive experience into their learning activities.

Dengan This literature review positions experiential learning, work-integrated learning, and collaborative learning, along with recognition of prior learning, as a complementary conceptual framework. This framework supports the adaptive, contextual, and sustainable development of civil servant competencies. Integrating these learning approaches is crucial for developing collaborative learning in the workplace, reducing reliance on traditional formal learning conducted in classrooms.

RESEARCH METHOD

This study employed a literature review approach combined with a Focus Group Discussion (FGD). The research was conducted at BPOM, focusing on the competency development of functional officials (PFM). The literature review involves gathering, reading, recording, and processing research materials from various library sources ([Zed 2008](#)). Meanwhile, FGD is a method of interaction between researchers and a group of participants to discuss a specific topic ([Sugiyono 2018](#)). FGDs are effective for gathering data and information that is not only descriptive but also provides in-depth understanding of participants' perspectives, attitudes, and behaviors related to the phenomenon being studied. As a qualitative method, FGDs allow for the exploration of participants' views and experiences, offering richer insights compared to traditional quantitative methods ([Prabowo and Harsono 2021](#); [Ratnawati, Susilowati, and Wati 2023](#)).

The literature study was conducted through a systematic review focusing on articles, journals, regulations, and books discussing experiential learning, project-based learning, problem-based learning, learning in the flow of work, and integrated learning. Meanwhile, the FGD was conducted with the involvement of relevant internal and external stakeholders from BPOM, especially those responsible for civil servant learning and competency development policies in Indonesia. The FGD included speakers and expert teams from various relevant ministries/agencies, such as the Ministry of State Apparatus Empowerment and Bureaucratic Reform (PAN RB), the State Civil Service Agency (BKN), the National Institute of Public Administration (LAN), and the Ministry of Finance. The FGDs discussed functional position development programs, including the competency development of functional officials. A literature review was chosen because the approach of work-integrated learning in civil servant competency development is a new requirement under Law Number 20 of 2023. This necessitates further elaboration from existing literature. This was done to capture the concept of work-integrated learning into the direct practice of civil servant management. The FGD approach aimed to gather data and further elaborate on the practical aspects of civil servant management, specifically concerning career development and competency enhancement for civil

servants. Data collection through FGDs was conducted 4 (four) times, namely on July 29-30, 2024, August 13-14, 2024, September 23-24, 2024, and November 11, 2024.

RESEARCH RESULT

From the series of Focus Group Discussions (FGDs) held with stakeholders in civil servant competency development, it was found that integrated and collaborative learning in the workplace is both a strategic need and a practical solution. This approach is essential to fulfill the mandate of Law Number 20 of 2023 concerning Civil Servants, specifically the obligation for every civil servant to undertake competency development and implement work-integrated learning. This need is becoming increasingly pronounced, particularly in the context of competency development for functional positions, such as Pharmaceutical and Food Supervisors (PFM) at BPOM. Currently, there are 3,569 civil servants with PFM positions at BPOM, and an additional 35 civil servants in PFM roles placed outside of BPOM. Referring to the Minister of State Apparatus Empowerment and Bureaucratic Reform Regulation Number 13 of 2024 concerning PFM Functional Positions, a PFM must have a competency certificate to carry out the duties of supervising drugs and food. There are six main drug and food supervision functions that form the basis of a PFM's work regarding drugs and food: standardization, assessment, inspection, enforcement, testing, and counseling. Based on these supervision functions, the need for PFM specialists was developed through the FGDs. For each PFM specialist, training programs and mechanisms for obtaining competency certificates are being created. The FGD results recommended 35 PFM specialist needs, with each specialization comprising three levels: junior, senior, and advance. The details of these specialists are outlined in Table 1 below:

Table 1. Pharmaceutical and Food Supervisor (PFM) Specializations

No	Function	PFM Specialist
1	Standardization	a. Drug Regulation Analyst b. Cosmetic Regulation Analyst c. Traditional Medicine Regulation Analyst

No	Function	PFM Specialist
2	Assessment	d. Health Supplement and Quasi-Drug Regulation Analyst e. Food Regulation Analyst
		a. Drug Evaluator b. Drug Clinical Trial Evaluator c. Cosmetic Evaluator d. Evaluator for Traditional Medicine, Health Supplement, and Quasi-Drug Products and Advertising e. Evaluator for Traditional Medicine, Health Supplement, and Quasi-Drug Clinical Trials f. Processed Food Evaluator
3	Inspection	a. Food Safety Risk Analyst b. Drug and Narcotics Control Evaluator c. Good Clinical Practice Inspector (CUKB) d. Good Distribution Practice Inspector (CDOB) e. Good Manufacturing Practice Inspector (CPOB) f. Pharmacovigilance Inspector g. Cosmetic Inspector h. Traditional Medicine, Quasi-Drug, and Health Supplement Inspector i. Good Traditional Medicine Manufacturing Practice Inspector (CPOTB) j. Food Safety Inspector k. Regional Drug and Food Control Officer
4	Enforcement	a. Drug and Food Intelligence Analyst b. Drug and Food Cyber Analyst c. Digital Forensics Specialist d. Drug and Food Crime Prevention Analyst e. Drug and Food Investigator
5	Testing	a. Biology Laboratory Analyst b. Chemistry Laboratory Analyst c. Calibration Laboratory Analyst
6	Counseling	a. Drug and Food Advocacy Analyst b. Public Information Disclosure Analyst c. Drug and Food Complaint Analyst d. Drug and Food Counseling Officer e. Drug and Food MSME Empowerment Facilitator

Source: FGD

Possession of a competency certificate as a specialist is a requirement for a PFM to perform their work and also a prerequisite for advancing to a higher functional PFM position. Each advancement to a higher specialist level requires training to obtain a competency certificate, which is a prerequisite for being recognized at that specialist level. Every PFM must possess at least one PFM specialization. With 35 PFM specializations, each with 3 levels, at least 105 technical specialist trainings for PFMs are needed to accommodate the competency development of all PFMs in Indonesia. With such extensive training needs, it's clear that BPOM won't be able to facilitate all of it through traditional classroom-based trainings. Moreover, according to regulations, a work-integrated learning system must be developed. This system is crucial to ensure PFMs possess

competency certificates aligned with their PFM specialist levels and job grades, enabling them to carry out their duties effectively.

From the perspective of infrastructure and resource readiness for implementing work-integrated learning, there are PFMs at the Junior Expert (Ahli Muda) or Middle Expert (Ahli Madya) levels scattered across BPOM's Central Work Units and its 86 Technical Implementation Units (UPT) throughout Indonesia. These individuals have the potential to be optimized as learning facilitators for PFMs in the workplace. In line with the integrated learning approach of a Corporate University, the largest proportion of learning that contributes to employee competency enhancement comes from direct work practice in the field or workplace. This potential must be optimized in the development of PFM competencies. It will not only meet the demand for competency certificate ownership but also the obligation for every civil servant to participate in competency development activities. PFMs with higher job levels or more advanced specialist levels can serve as field learning facilitators for other employees. They can also evaluate the progress of PFM competency development. Based on the evaluation results, the field learning facilitators recommend that employees take an equivalency exam instead of being required to attend training. Meanwhile, learning technologies like Learning Management Systems (LMS) and Knowledge Management Systems (KMS) can be optimized for PFM learning. These systems are particularly useful for enhancing PFMs' theoretical knowledge and understanding of regulations in drug and food supervision.

DISCUSSION

Work-Integrated and Collaborative Learning

Work-integrated and collaborative learning, based on the analysis in this research, shows a strong connection with the concepts of Work-Integrated Learning (WIL), collaborative learning, and Experiential Learning (EL). This research indicates that the implementation of civil servant learning and development at BPOM originated from the need to fulfill the competency certification requirements for PFMs. This ultimately puts learning process within the actual workflow (learning in the flow of work) and integrates it with their daily tasks. In this context, collaborative learning is built through interactions between senior and junior PFMs in the workplace. It also involves supervisors and more expert PFMs in guiding learning tasks in the field, as well as real project-based team activities related to drug and food supervision. Meanwhile, experiential learning serves as the primary pedagogical approach used throughout every stage of this learning process. This includes everything

from planning and executing learning tasks, to reflecting on experiences, and finally, validating learning outcomes by field learning facilitators.

Since every civil servant is required to undergo competency development through work-integrated learning, an experiential learning approach, collaborated with work-integrated learning through learning in the flow of work, becomes highly relevant for implementation in civil servant management in Indonesia ([Sudewo 2023](#)). Learning that integrates a culture of learning, collaboration, innovation, and knowledge sharing with experiential learning fosters civil servants' readiness to face work challenges in both government and public service. In public sector human resource management, learning is effective when supported by an adequate ecosystem and a positive learning culture ([Giannakos, Krogstie, and Aalberg 2016](#)). The Corporate University concept explains that 70% of employee learning comes from direct work practice with the guidance of accompanying facilitators in the workplace ([Fauziah and Prasetyo 2019](#); [Nurhayati 2022](#)). This shifts learning methods from a classical to a non-classical format, primarily through more adaptive and applicable integrative learning. It is no longer limited to classroom training. Instead, it is increasingly conducted in the work environment, integrated with the employees' systems and workflows ([Firdaus 2021](#)). Integrative learning allows civil servants to learn anytime and anywhere, directly applying the knowledge and competencies they gain to their work. This system combines assignments, self-learning, problem-based learning, project-based learning, e-learning, mentoring, and coaching into a work-integrated learning scheme. Implementing the concept of work-integrated learning also requires a learning and knowledge-sharing ecosystem ([Álvarez-Arregui et al. 2017](#)). This involves the interconnectedness of various organizational components that contribute to organizational learning ([Giannakos et al. 2016](#)). It is also important to understand the relationships between the core components of a learning ecosystem, such as learning communities, a supportive learning environment, active learning methodologies, learning evaluation mechanisms, and supporting mechanisms ([Vu et al. 2023](#)). This way, government agencies can create a holistic environment for the continuous learning and growth of their employees. On the other hand, civil servants must possess intrinsic motivation to learn, with management's support in creating continuous learning opportunities ([Lin and Chen 2017](#)). Furthermore, management support as part of the learning ecosystem plays a crucial role in creating continuous learning opportunities, which in turn helps build employee commitment to the learning process ([Huang et al. 2019](#)).

In the context of civil servants in Indonesia, experiential learning through learning in the flow of work is relevant. This is particularly true given the budget constraints and limited capacity of

training institutions. Optimal support from internal and external stakeholders is important for supporting civil servant learning. With a collaborative, work-integrated learning approach in the workplace, problem-based learning, and project-based learning, civil servants can learn while achieving their performance targets. Supervisors and senior employees with higher specializations serve as field learning facilitators, coaches, and mentors for workplace learning. Considering not all supervisors have teaching skills and tend to focus more on theoretical and knowledge aspects, then e-learning and self-learning through digital platforms become an option and an important part of integrating learning into the workplace. Organizations need to provide infrastructure like a Learning Management System (LMS) and a Knowledge Management System (KMS) to convenient easy access to learning materials and knowledge resources. A standardized quality system remains essential to ensure the quality of collaborative and integrated learning in the workplace. Field learning facilitators are empowered to assign tasks, evaluate learning outcomes, foster collaboration, build a learning ecosystem, and cultivate a learning culture in the workplace. This also creates a culture of knowledge sharing and continuous learning within the organization.

Kurikulum Work-Integrated and Collaborative Learning Curriculum

Every employee learning program requires a curriculum to ensure that the objectives are met with materials that align with organizational and learning needs. In implementing collaborative and integrated learning in the workplace, it's crucial to build a learning system with a structured curriculum. This ensures that *experiential learning* is intentionally carried out, distinguishing it from mere *learning from experience* that might occur in the workplace ([Merriam and Bierema 2013](#); [Moon 2013](#)). A standardized curriculum with a clear, robust systematic structure remains essential. This is to ensure that learning assignments given to employees align with the learning materials and objectives, even when conducted directly in the workplace. Every learning material within the curriculum is designed to connect with employees' personal experiences and be easily accessible whenever needed ([Wilson and Hiipakka 2019](#)). A learning curriculum is also essential for developing work-integrated learning plans for each employee. This is crucial because a work-integrated and collaborative learning approach must be able to cater to the diverse needs of each individual employee. Nonetheless, it must be ensured that by the end of the learning process, every participant can achieve the learning targets and master the competencies that are the goals and objectives of the training.

The learning curriculum also serves as a reference for field learning facilitators when assigning learning tasks and evaluating learning outcomes. This is to ensure that the targeted competencies are proficiently acquired by civil servants. When implementing workplace learning, it's crucial to ensure that employees' experiences in learning assignments are specifically designed to contain and deliver knowledge and competencies as work-integrated learning material. Moreover, selecting the right learning approach is important to ensure learning objectives are met. Integrating learning into the workflow also means integrating learning outcomes. This means that the outputs of learning can indirectly become the performance outputs of both the employee and their organization.

Recognition of Work-Integrated and Collaborative Learning Achievements

In employee learning, it's important to manage learning outcomes and also to recognize employees' learning achievements. Similar to classical classroom learning, work-integrated learning emphasizing collaborative and integrative approaches in the workplace also requires recognition of learning outcomes for participating employees. In the context of civil servant learning, recognizing learning outcomes is a critical important aspect. It's considered a key learning achievement for employees that directly influences their career development. The Recognition of Prior Learning (RPL) approach becomes relevant for acknowledging employee learning outcomes, ensuring fairness in competency enhancement ([Guimarães and Mikulec 2020](#)). This recognition boosts employee confidence and supports equality in global training ([Hamer 2012](#)). Integrating RPL into competency development removes barriers to learning and creates a more inclusive approach. Civil servants participating in work-integrated and collaborative learning, supported by self-learning and evaluated by field learning facilitators, can receive recognition equivalent to traditional classroom training.

A structured system for recognizing the learning outcomes of civil servants from work-integrated learning needs to be developed. This is essential to guarantee the quality of both the learning process and its results. It ensures that the competencies gain through work-integrated learning are formally recognized within civil servants management administration. These achieved learning outcomes of civil servants can be utilized to support their career development and advancement. This learning approach also offers a solution to the limitations in budget and the capacity of training institutions. Recognizing learning outcomes through RPL also fosters a culture of knowledge sharing and self-learning among civil servants. This helps build a learning culture and a learning ecosystem in the workplace.

The earlier explanation aligns with current trends in employee competency development, where learning is no longer confined to formal methods with rigid structures and fixed schedules. Instead, it has evolved to adapt to the increasing complexity and uncertainty of today's work environment. This situation demands a high level of adaptability and agility in employee learning. Over-reliance on formal, rigidly scheduled employee training can jeopardize an organization's sustainability, both now and in the future ([Tupper and Ellis 2023](#)). Furthermore, scientific knowledge and technology are expected to continue developing significantly, with the potential for even faster disruption. For instance, the field of medicine is expected to undergo significant development and disruption in line with advances in information technology and scientific knowledge ([Betz et al. 2019](#)). Organizations need to adopt more flexible and responsive learning approaches that enable employees to continuously learn and adapt to rapid changes ([Baker 2005](#)). This includes BPOM as the object of this research. Informal learning, such as learning through experience, collaboration among colleagues, and the use of digital technology, is becoming increasingly important to support employee competency development ([Huang et al. 2019](#)).

CONCLUSION

Based on the discussions and analysis of the research data, the concept of integrative and collaborative workplace learning, utilizing a work-integrated learning and experiential learning approach, offers a more flexible alternative for civil servant training compared to traditional classroom-based training. This model integrates various learning approaches, including assignments, self-learning, problem-based learning, project-based learning, e-learning, mentoring, and coaching. This is all part of an integrative and collaborative learning scheme that allows employees to learn directly within the context of their work at the workplace. In its implementation, curriculum development remains necessary, with standardized quality systems for self-learning modules, workplace assignments, and civil servant competency evaluation. This ensures learning outcomes remain relevant and aligned with the competency needs required to achieve organizational goals. The success of this concept depends on the support of all parties, especially superiors and senior employees. They act as facilitators, providing assignments, guidance, and evaluating learning directly in the workplace. The learning outcomes of civil servants can be recognized through a Recognition of Prior Learning (RPL) approach, where their competencies are equated to those gained from classical classroom training.

This research recommends that government agencies more actively adopt integrative and collaborative workplace learning with adaptive and responsive systems. Management support is crucial for fostering a learning culture, providing facilitators and learning infrastructure, and regularly evaluating program effectiveness. Further research is needed to explore learning methods and technologies that can be integrated into the civil servant management system. This will ensure that employee competencies remain relevant and continue to develop.

REFERENSI

- Ahsan, Muhammad Junaid. 2024. "Cultivating a Culture of Learning: The Role of Leadership in Fostering Lifelong Development." *The Learning Organization*.
- Álvarez-Arregui, Emilio, Alejandro Rodríguez-Martín, Susana Agudo Prado, and X. Arreguit. 2017. "Inclusive Ecosystem Model for the Management of Knowledge, Training and Innovation: Progress, Difficulties and Challenges." *Aula Abierta* 46:97. doi: 10.17811/rifie.46.2017.97-104.
- Asian Development Bank. 2021. *A Diagnostic Study of The Civil Service in Indonesia*. Manila.
- Badan Kepegawaian Negara. 2024. *Buku Statistik Aparatur Sipil Negara Semester II 2023*. Jakarta: Badan Kepegawaian Negara (BKN).
- Baker, D. P. 2005. "Medical Teamwork and Patient Safety: The Evidence-Based Relation." *AHRQ Publication*.
- Barrows, H. S. 1996. "Problem-Based Learning in Medicine and beyond: A Brief Overview." *Bringing Problem-Based Higher Education: Theory and Practice: New Directions for Teaching and Learning* 8(5–6).
- Bath, V. 2002. "Experiential Learning: A Handout for Teacher Educators Mysue: Institute of Education." *Journal of Experiential Learning*.
- Bell, Stephanie. 2010. "Project-Based Learning for the 21st Century: Skills for the Future." *The Clearing House* 83(2):39–43.
- Bersin, Josh. 2018a. "A New Paradigm For Corporate Training: Learning In The Flow of Work." *Joshbersin.Com*. Retrieved September 2, 2023 (<https://joshbersin.com/2018/06/a-new-paradigm-for-corporate-training-learning-in-the-flow-of-work/>).
- Bersin, Josh. 2018b. *Learning In The Flow of Work, a New World of Learning Is Finally Here*. Deloitte Consulting LLP.
- Bersin, Josh. 2022. *Learning Technologies and Platforms 2022 and Beyond*.
- Bersin, Josh, Kathi Enderes, Stella Ioannidou, Janet Mertens, and Nehal Nangia. 2023. *HR Prediction for 2023*. The Josh Bersin Company.
- Betz, Ulrich A. K., Frederick Betz, Rachel Kim, Brendan Monks, and Fred Phillips. 2019. "Surveying the Future of Science, Technology and Business—A 35 Year Perspective." *Technological Forecasting and Social Change* 144:137–47.
- Blindenbacher, Raoul, and Bidjan Nashat. 2010. *The Black Box of Governmental Learning, the Learning Spiral, a Concept to Organize Learning in Governments*. Washington DC: The International Bank of Reconstruction and Development/The World Bank.
- Cahyani, Isah. 2009. "Peran Experiential Learning Dalam Meningkatkan Motivasi Pembelajaran BIPA." *Bandung: UPI*.
- Chesomales, Potoula. 2021. "Learning In The Flow Of Work." *Forbes*. Retrieved January 11, 2025 (<https://www.forbes.com/councils/forbestechcouncil/2021/05/28/learning-in-the-flow-of->

work/).

- Crossan, Mary M. 1996. "The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation."
- Deloitte. 2019. *Learning in The Flow of Work*. Deloitte Development LLC.
- Departemen Pendidikan Nasional. 2008. *Panduan Kurikulum Tingkat Satuan Pendidikan*. Jakarta: Departemen Pendidikan Nasional.
- Dewey, John. 1986. "Experience and Education." Pp. 241–52 in *The educational forum*. Vol. 50. Taylor & Francis.
- Dillenbourg, Pierre. 1999. "What Do You Mean by Collaborative Learning?" *Collaborative-Learning: Cognitive and Computational Approaches*. 1–19.
- Dunlop, Claire A. 2018. "Building Organizational Political Capacity through Policy Learning: Communicating with Citizens on Health and Safety in the UK." *Policy Capacity and Governance: Assessing Governmental Competences and Capabilities in Theory and Practice* 265–87. doi: 10.1007/978-3-319-54675-9_12.
- Edward, Aurelia Valentin, M. Fachri Adnan, and Afriva Khaidir. 2024. "New Public Manajemen: Studi Kasus Penerapan New Public Manajemen Dalam Organisasi Publik Di Indonesia." 2(2):54–62. doi: 10.61579/future.v2i2.97.
- Fauziah, Nike Mutiara, and Andri Wahyu Prasetyo. 2019. "ASN Corporate University: A Concept Training and Education in Disruptive Era." *Civil Service Journal* 13(2):51–62.
- Firdaus, Muhammad. 2021. *Pedoman Pembelajaran Di Tempat Kerja. Instrumen Pengembangan Kompetensi Jalur Non-Klaikal Untuk ASN Corporate University*. Jakarta: Lembaga Administrasi Negara (LAN).
- Firmansyah, Firmansyah. 2023. "Implementasi Penyetaraan Jabatan Terhadap Pola Karier Pejabat Fungsional Di Pemerintah Kabupaten Bima." *Journal of Governance and Local Politics (Jglp)* 5(2):217–26. doi: 10.47650/jglp.v5i2.1009.
- Garvin, David A., Amy C. Edmondson, and Francesca Gino. 2008. "Is Yours a Learning Organization?" *Harvard Business Review* 86(3):109.
- Giannakos, Michail N., John Krogstie, and Trond Aalberg. 2016. "Video-Based Learning Ecosystem to Support Active Learning: Application to an Introductory Computer Science Course." *Smart Learning Environments* 3(1). doi: 10.1186/s40561-016-0036-0.
- Guimarães, Paula, and Borut Mikulec. 2020. "Paradox of Utilitarian Recognition of Prior Learning." *European Journal for Research on the Education and Learning of Adults* 12(1):109–22. doi: 10.3384/rela.2000-7426.ojs1479.
- Hamer, Jen. 2012. "An Ontology of RPL: Improving Non-Traditional Learners' Access to the Recognition of Prior Learning Through a Philosophy of Recognition." *Studies in Continuing Education* 34(2):113–27. doi: 10.1080/0158037x.2011.613376.
- Handayani, Sri. 2016. "Faktor Determinan Pengembangan Kompetensi Aparatur Sipil Negara Di Kabupaten Biak Numfor." *Gema Kampus IISIP YAPIS Biak* 11(2):32–39.
- Hmelo-Silver, Cindy E., and Catherine Eberbach. 2011. "Learning Theories and Problem-Based Learning." Pp. 3–17 in *Problem-based learning in clinical education: The next generation*. Springer.
- Huang, Xiaoquan, Xiaowen Fan, Jun Ying, and Shiyao Chen. 2019. "Emerging Trends and Research Foci in Gastrointestinal Microbiome." *Journal of Translational Medicine* 17:1–11.
- Johnson, David W., and Roger T. Johnson. 1987. *Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning*. Prentice-Hall, Inc.
- Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2024. "JDIH Kementerian PANRB." Retrieved November 16, 2024 (<https://jdih.menpan.go.id/dokumen-hukum/hasil->

pencarian).

- Khrykov, Yevhen M., Olga M. Ptakhina, Tetiana V Sych, Dmytro I. Dzvinchuk, and Maryna V Kormer. 2022. "Trends in the Development of E-Learning for Civil Servants." Pp. 126–40 in *Proceedings of the 1st Symposium on Advances in Educational Technology*. Vol. 2. SciTePress: AET.
- Kokotsaki, Dimitra, Victoria Menzies, and Andy Wiggins. 2016. "Project-Based Learning: A Review of the Literature." *Improving Schools* 19(3):267–77.
- Kolb, Alice Y., and David A. Kolb. 2009. "Experiential Learning Theory: A Dynamic, Holistic Approach to Management Learning, Education and Development." *The SAGE Handbook of Management Learning, Education and Development* 7(2):42–68.
- Krajcik, J., and P. Blumenfeld. 2006. "Project-Based Learning." Pp. 317–33 in *In The Cambridge Handbook of the Learning Sciences*. New York: Cambridge University Press.
- Lembaga Administrasi Negara. 2018. *Grand Design Jabatan Fungsional*. edited by T. W. W. Utomo. Jakarta: Pusat Inovasi Kelembagaan dan Sumber Daya Aparatur, Deputi Bidang Inovasi Administrasi Negara, Lembaga Administrasi Negara.
- Lembaga Administrasi Negara. 2023. *Peraturan Lembaga Administrasi Negara Republik Indonesia Nomor 6 Tahun 2023 Tentang Sistem Pembelajaran Pengembangan Kompetensi Secara Terintegrasi (Corporate University)*.
- Lin, Ming-Hung, and Huang-g Chen. 2017. "A Study of the Effects of Digital Learning on Learning Motivation and Learning Outcome." *Eurasia Journal of Mathematics, Science and Technology Education* 13(7):3553–64.
- Lombardozzi, Catherine. 2016. "Challenges of Learning in the Flow of Work: Scaffolding Self-Direction." *International Journal of HRD Practice, Policy, and Research* 1(2):27–39. doi: 10.22324/ijhrdppr.1.114.
- Lukito, Imam, and Haryono Haryono. 2020. "Optimalisasi Pendidikan Dan Pelatihan Metode E-Learning Di Lingkungan Kementerian Hukum Dan HAM." *Jurnal Ilmiah Kebijakan Hukum* 14(2):339. doi: 10.30641/kebijakan.2020.v14.339-360.
- mercer. 2020. *Menang Dengan Empati, Trend Talenta Global 2020-2021*.
- mercer. 2023. *Rise of the Relatable Organizaion. Global Talent Trends 2022-2023 Study*. Mercer LLC.
- Merriam, Sharan B., and Laura L. Bierema. 2013. *Adult Learning: Linking Theory and Practice*. John Wiley & Sons.
- Moon, Jennifer A. 2013. *A Handbook of Reflective and Experiential Learning: Theory and Practice*. Routledge.
- Moss, Leah, and Andy Brown. 2014. "Transformative Learning." *International Journal of Adult Vocational Education and Technology* 5(1):57–66. doi: 10.4018/ijavet.2014010106.
- Mukhtaromin. 2020. "Faktor Kunci Sukses Model Pembelajaran 70/20/10 Pada Pusklat Anggaran Dan Perbendaharaan." Pp. 153–58 in *E-Prosiding Seminar Nasional 'Peran Corporate University dalam Pengembangan Kompetensi SDM Berdaya Saing Global' 14-15 Oktober 2020*. Jakarta: Pusat Pendidikan dan Pelatihan BMKG.
- Nurhayati. 2022. "Pembelajaran Terintegrasi Di Tempat Kerja – Kesiapan Penerapan Action Learning Di BMKG." *Jurnal Widyaishwara Indonesia* 3(3):141–50. doi: 10.56259/jwi.v3i3.148.
- Palupi, Raraswati, Meliyanti Meliyanti, and Sani Aryanto. 2021. "Efektivitas Dan Kebermanfaatan Modul Belajar Mandiri Calon Guru Aparatur Sipil Negara (ASN) PPPK (Pegawai Pemerintah Dengan Perjanjian Kerja)." *Dwija Cendekia Jurnal Riset Pedagogik* 5(2):338. doi: 10.20961/jdc.v5i2.56351.
- Patrick, Carol-joy, Deborah Peach, Catherine Pocknee, Fleur Webb, Marty Fletcher, and Gabriella

- Pretto. 2008. *The WIL (Work Integrated Learning) Report: A National Scoping Study*. Queensland University of Technology.
- Prabowo, Anto, and Mugi Harsono. 2021. "Fenomena Pengawasan Market Conduct Di Indonesia Oleh Otoritas Jasa Keuangan." *Jurnal Indonesia Sosial Teknologi* 2(07):1084–99. doi: 10.36418/jist.v2i7.191.
- Priadi, Antoni Arif, Tri Cahyadi, Damoyanto Purba, Ninik Harini, and Zainullah Zuhri. 2019. "Recognition of Prior Learning for Master Marine With Indonesian Qualifications Framework." doi: 10.2991/icei-19.2019.62.
- pwc. 2023. *Is the Workforce Ready for Reinvention? Asia Pasific Workforce Hopes and Fears Survey 2023*.
- Rasid, Ficky T Eriyanto riyudian, Sasongko H. Pramono, and Muhammad N. Rizal. 2022. "Peranan Manajemen Pengetahuan Dalam Evaluasi Sistem Pemerintahan Berbasis Elektronik." *Jiko (Jurnal Informatika Dan Komputer)* 5(3):209–14. doi: 10.33387/jiko.v5i3.5284.
- Ratnawati, Kusuma, Christin Susilowati, and Cicik Retno Wati. 2023. "Pemanfaatan Inovasi Social Media Marketing Dalam Peningkatan Kualitas Pemasaran Produk UMKM Ibu-Ibu PKK Di Kelurahan Temas, Kota Batu." 3(2):69–77. doi: 10.59329/carmin.v3i2.83.
- Roy, Rumpa, and H. El Marsafawy. 2021. "Bridging Recognition of Prior Learning (RPL) and Corporate Social Responsibility (CSR): Circular Flow of Interaction Among the University, Industry, and People." *Sustainability* 13(8):4532. doi: 10.3390/su13084532.
- Salsabila, Ainus, and Zulfani Nurdiana Agustin. 2024. "Efektivitas Pengaplikasian Experiential Learning Menggunakan Alat Peraga Phet Dengan Alat Peraga Sederhana Pada Materi Energi Dan Perubahannya." *Lensa (Lentera Sains) Jurnal Pendidikan Ipa* 14(1):19–28. doi: 10.24929/lensa.v14i1.364.
- Samsara, Ladiatno. 2023. "Pengembangan Kompetensi PPPK Berbasis Blended Learning: Strategi Untuk Mewujudkan Pengembangan Kompetensi Massif Dan Terintegrasi Dan Peningkatan Kompetensi Digital Pegawai." *Jurnal Kewidyaiswaraan* 8(2):58–69. doi: 10.56971/jwi.v8i2.283.
- Savin-Baden, Maggi. 2000. *Problem-Based Learning in Higher Education: Untold Stories: Untold Stories*. McGraw-Hill Education (UK).
- Saydam, Gouzali. 2006. *Built in Training, Jurus Jitu Mengembangkan Profesionalisme SDM*. Bandung: PT Remaja Rosdakarya.
- Senge, Peter M. 2014. *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. Crown Currency.
- Skoglof, Johan. 2022. *A Learning Organisation for the Future (Presentation)*.
- Soantahon, Sherwin Mikhael. 2023. "Rancangan Desain Kurikulum Pelatihan Berbasis Masalah Untuk Aparatur Sipil Negara (Asn) Dengan Menggunakan Konsep Pembelajaran Dinamis (Dynamic Learning)." *Jurnal Kewidyaiswaraan* 8(2):83–94. doi: 10.56971/jwi.v8i2.284.
- Stephens, Simon. 2022. "Recognition of Prior Learning: Implications for Quality Assurance in Higher Education." *Quality Assurance in Education* 30(4):495–506. doi: 10.1108/qae-03-2022-0054.
- Sudewo, Perdhana Ari. 2023. "Implementasi Learning In The Flow Of Work Pada Lembaga Pemerintah, Studi Kasus Di Badan Pengawas Obat Dan Makanan." *Jurnal Kewidyaiswaraan* 8(2):95–107.
- Sudewo, Perdhana Ari, and Bintang Aruan Sulastri. 2022a. "Hubungan Capaian Jam Pelajaran Pengembangan Kompetensi Dengan Kinerja Pegawai Aparatur Sipil Negara." *Jurnal Kewidyaiswaraan* 7(2):150–58.
- Sudewo, Perdhana Ari, and Bintang Aruan Sulastri. 2022b. "The Effect of Learning Hours of

- Competency Development and Employee Performance on Organizational Performance at A Government Institution in Indonesia.” *Jurnal Administrasi Negara* 28(2):217–42.
- Sudjana. 2005. *Teknik-Teknik Pembelajaran Partisipatif*. Bandung: Falah.
- Sugiyono. 2018. *Metode Penelitian Kualitatif*. Bandung: Alfabeta.
- Tauber, Todd, and Wendy Wang-Audia. 2014. “Meet the Modern Learner: Engaging the Overwhelmed, Distracted, and Impatient Employee.” *Research Bulletin, The Latest in Enterprise Learning & Talent Management* (November 26, Bersin by Deloitte).
- Thomas, John. 2000. “A Review of Research on Project Based Learning | MyPBLWorks.” Retrieved January 20, 2025 (https://my.pblworks.org/resource/document/a_review_of_research_on_project_based_learning).
- Tuomainen, Satu. 2018. “Examination as the Method in the Recognition of Prior Language Learning.” *International Journal of Lifelong Education* 37(6):676–88. doi: 10.1080/02601370.2018.1518346.
- Tupper, Hellen, and Sarah Ellis. 2023. “How to Help Your Team Learn in the Flow of Work.” *Harvard Business Review* (Februari 15).
- Vu, Hang Thi Thuy, Nam Hoang Le, Long Thanh Phan, and Sau Thi Ut Nguyen. 2023. “Effectiveness of Building a Culture of Learning Among Vietnamese Pedagogical University Students.” *International Journal of Education and Practice* 11(3):439–49. doi: 10.18488/61.v11i3.3397.
- Widiawati, Widiawati, Iva Sarifah, and Nurjannah Nurjannah. 2023. “Perbedaan Pembelajaran Berbasis Proyek Dan Pembelajaran Berbasis Masalah Dalam Meningkatkan Keterampilan Berpikir Tingkat Tinggi Ditinjau Dari Motivasi Berprestasi.” *Jurnal Educatio Fkip Unma* 9(1):223–30. doi: 10.31949/educatio.v9i1.4426.
- Wilson, Mackenzie, and Julie Hiipakka. 2019. “Learning in the Flow of Work Solutions: Market Primer.” *Deloitte Development LLC*.
- Wulandari, Devvy Pramasti. 2021. “Strategi Peningkatan Kompetensi Dalam Menyiapkan ASN Di Era Revolusi Industri 4.0.” *Jejaring Administrasi Publik* 13(2):101–20. doi: 10.20473/jap.v13i2.31830.
- Zed, Mestika. 2008. *Library Methodology*. Jakarta: Yayasan Obor Indonesia.
- Zulkarnain, Fathurrozi Wali. 2022. “Optimasi Manajemen Talenta Di Sektor Publik: Kajian Studi Manajemen Sumber Daya Manusia.” *Journal of Governance and Administrative Reform* 2(2):128–50. doi: 10.20473/jgar.v2i2.33468.