

Adults and Learning: How do They Perceive their Learning Capabilities?

Juliana Razid and Fadilah Puteh

Faculty of Administrative Science and Policy Studies University Teknologi MARA, Shah Alam,
Selangor

Email: julianarazid@gmail.com

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Abstract

Training is one of the essential needs to improve employee performance. In Malaysia, the Public Service Department (PSD), better known as Jabatan Perkhidmatan Awam (JPA), is responsible for crafting policies or circulars regarding the need for civil servants to be trained. Currently, training for civil servants is still based on Pekeliling Perkhidmatan Bilangan 6 Tahun 2005 – Dasar Latihan Sumber Manusia Sektor Awam. Nonetheless, the circular is considered old and needs revisions to ensure the training continuity follows the current demands in civil services. This paper presents an analysis of the learning approach adopted by Public Administrative and Diplomatic officers in Malaysia. The research has three (3) objectives: (i) How do learners view formal learning? (ii) How do learners view non-formal learning? and (iii) How do learners view informal learning? This study uses a quantitative approach, collecting data via a quantitative survey. This research involved 412 respondents who are Public Administrative and Diplomatic officers in Malaysia. Data were analysed using SPSS, proving that all learning approach components have high mean values. The result shows that the respondents agreed collectively that all the components are essential and valuable for them in the learning process. The findings of the study are aimed at improving the learning approaches towards adult learners, especially in the civil service in Malaysia.

Keywords: Adult Learning, Formal Learning, Non-formal Learning, Informal Learning

Introduction

Adult learning, often called andragogy, differs significantly from traditional child-focused education or pedagogy. Adult learning is rooted in the understanding that adults have unique needs and characteristics that influence how they acquire and process knowledge. This field has been extensively studied and theorised, with several fundamental principles and theories emerging as foundational to effective adult education.

Knowles proposed several assumptions about adult learners: they need to know the reason for learning something, have a wealth of experience that forms a rich resource for learning, are motivated by internal factors, and are oriented towards learning that is

immediately applicable and problem-centred (Knowles et al., 2015). Kolb's theory emphasises learning through experience and posits a four-stage cycle: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. This cyclical process allows learners to apply what they have learned to new situations, enhancing understanding and retention (Kolb, 1984). Thus, adult learning encompasses a range of educational activities and experiences to engage adult learners (Yusuf, 2021). As the adult learners' unique characteristics and motivations were recognised, the various contexts in which learning occurs can be broadly categorised into three types: formal, non-formal, and informal learning (Wahab & Puteh, 2021).

Formal learning consists of structured and credentialed programs such as university degrees, professional certifications, and corporate training programs. These programs follow a defined curriculum, include assessments, and often lead to recognised qualifications (Knowles et al., 2015). Non-formal learning includes organised educational activities outside the formal education system, such as community education programs, workshops, and online courses. These are typically flexible and voluntary and may not lead to formal qualifications (Bierema, 2019). Informal learning is unstructured and occurs naturally through daily activities and interactions (Watkins & Marsick, 2020). Some examples of informal learning include learning through work experiences, social interactions, hobbies, and self-directed study. Adult learning is crucial as it impacts personal growth, professional development, and societal advancement. It contributes to economic development by providing a skilled workforce, promoting social inclusion by offering all adult learning opportunities and supporting personal fulfillment through lifelong learning.

Addressing skills gaps through adult learning initiatives is crucial for enhancing the employability and productivity of the Malaysian workforce. Lifelong learning programs can equip individuals with the skills to adapt to changing job requirements and contribute to the country's economic growth (Puteh et al., 2015). However, the country faces skills shortages and mismatches, hindering its ability to meet the demands of evolving industries and technological advancements (Khair et al., 2019). Therefore, upgrading the training content and identifying the training requirements with a proper duration is necessary (Kuruppu et al., 2021).

Currently, the Public Service Department (PSD), better known as *Jabatan Perkhidmatan Awam* (JPA), is still using a 16-year-old circular, *Pekeliling Perkhidmatan Bilangan 6 Tahun 2005 – Dasar Latihan Sumber Manusia Sektor Awam*, that highlights the need to fulfil a minimum of seven (7) days for training in a year (JPA, 2005). However, the circular was neither specific training nor a list of modules required to be completed by the government servants. The circular only categorised training into training, learning, and self-learning. It is now seen as high time to revamp the training approach by incorporating formal, non-formal and informal learning when considering adult learners.

Based on the above problem statement, this paper intends to discover three (3) objectives: (i) how learners perceive formal learning, (ii) non-formal learning, and (iii) informal learning.

This study proposes that training in the public sector should be based on the adult learning theory that highlights three (3) learning styles: formal, non-formal and informal. Thus, it may contribute to revising the current training policy in the government, which is currently based on circular *Pekeliling Perkhidmatan Bilangan 6 Tahun 2005 – Dasar Latihan Sumber Manusia Sektor Awam*. The Public Service Department could use the input to design

a training development structure to improve employee performance. This guideline will benefit ministries and agencies by helping them craft suitable training modules for the near future.

Literature Review

Adult Learning

Adult learning, or andragogy, is the art and science of teaching adults (Knowles, 1970). According to the United States Department of Education (2018), adults are categorised as people between 25 and older, as cited by (Bouchrika, 2021). Adult learning and education are formal and informal learning obtained beyond the typical graduation age (Midtsundstad, 2019). Adult education is the intentional, systematic process of teaching and learning by which a person who occupies an adult role acquires new values, attitudes, knowledge, skills, and discipline (Prakash et al., 2019). Adult learning is described as an adult adhering to skills and expertise.

Andragogy differs from pedagogy, the theory of child education, in several key aspects. While andragogy emphasises self-directed learning, leveraging life experience and practical, problem-centred approaches Knowle et al (2020), pedagogy focuses on teacher-directed instruction and developmentally appropriate learning activities for children (Knowles et al., 2020). These differences highlight adult learners' unique characteristics and needs compared to children. Understanding these distinct approaches is essential for trainers to design practical learning experiences tailored to the specific requirements of their learners.

This study focuses on the three approaches under adult learning theory, namely formal, non-formal and informal learning/training. Training and learning are used interchangeably according to the context of sentences but will bring a similar intention.

Past Studies on Adult Learners

Recent studies have further explored various aspects of adult learning, shedding light on its multifaceted nature and implications for educational practice. Based on the andragogy theory propounded by Malcolm Knowles, the adult learning principle sees learners as autonomous and self-directed, experienced, goal-oriented, relevancy-oriented, and practical-oriented individuals (Yusuf, 2021). According to Velardi et al (2021), who explored informal and formal knowledge exchange networks among two growing industries in Maine, maple syrup production and beekeeping, by applying adult learning theory, the result proved that the adult learning theory as a helpful framework to explore learning and knowledge exchange among distinct agricultural production practices to help inform future education and training initiatives. Meanwhile, Allen et al (2021) also described a comprehensive model of adult learning designed to advance the capacity of business schools to provide their graduate and undergraduate students with the training and development needed to transform students into leaders. As a result, the study advances a comprehensive business leader education and training model incorporating and integrating five primary orientations to adult learning (cognitivist, behaviourist, humanistic, social cognitive, constructivist). The adult learning theory (ALT) is also part of lifelong learning since it emphasises that learning can be done in a formal, non-formal, and informal approach (Nygren et al., 2019a; Puteh et al., 2015; Mocker & Spear, 1982).

Formal learning/training is a form of learning that occurs in formal settings with planned activities to achieve tangible outputs such as certificates. Formal learning is typically institutionally organised, often classroom-based, and highly structured De Troyer et al (2020);

Johnson et al (2018) to improve the workforce's knowledge and skills (Johnson et al., 2018). Formal learning also involves conferences, certification courses, or graduate coursework. Formal learning might refer to book studies, lesson studies, or learning circles in job-embedded learning. Manuti et al (2015) also emphasised that formal learning includes five (5) criteria: the prescribed learning framework, an organised learning event or package, the presence of a designated teacher or trainer; the award of a qualification or credit; and the external specification of outcomes. A formal training and development program is a pre-planned method that includes performance evaluations and learning solutions that can be completed during work hours or outside work for a predetermined period (Rodriguez & Walters, 2017). Therefore, formal learning is viewed as a rigid and structured approach to learning.

Non-formal learning/training differs from formal learning, generally carried out in elementary schools. Taylor (2006) provides a non-formal education description, which argues that it tends to be time-focused, responsive to localised needs, learner-centred, less structured than formal education, and assumes a non-hierarchical relationship between learner and facilitator. Non-formal learning is also flexible regarding curricula and methodology. However, learning in these settings is not by chance but intentional and organised. According to Seidle et al (2016b), combining coaching, classroom instruction, feedback, and experiential training has significantly impacted employee performance. Other suitable approaches include training methods, case studies, games-based training, internship, job rotation, job shadowing, lecture, mentoring and apprenticeship, programmed instruction, role-modelling, role play, simulation, stimulus-based training, and team training (Martin et al., 2014). Coaching and mentoring also significantly affect employees' better performance (Shem & Manjale, 2017).

Informal learning/training refers to learning activities outside formal and non-formal education, a continuous process often irrespective of plan or intent (Harding, 2021). Informal learning resulting from daily activities is often related to experiential and accidental learning. Informal learning involves pursuing understanding, knowledge, or skill without externally imposed curricular criteria (Livingstone, 2001). Informal learning is the opposite of formal learning outside the classroom (Watkins & Marsick, 2020). It is unstructured, often unintended, and occurs outside a conventional learning setting as learning from daily life actions related to work, family, or leisure activities (Nygren et al., 2019b). Informal learning takes place irrespective of plan or intent Harding (2021); Manuti et al (2015), reflecting the nature of learning as a continuous process. The informal learning process includes intended, incidental, and tacit learning and is likely to be overlooked (Peeters et al., 2014). Thus, informal learning is critical in all workplace learning Clardy (2018a) as it could complement formal training (Peeters et al., 2014). Informal learning could also be described as the transfer of training, which refers to consistently applying knowledge, skills, and attitudes gained during workplace training (Zumrah, 2014). Indeed, learning occurs during critical moments of need, which are integrated into the practice context (Manuti et al., 2015). The drive for effective informal learning will then ensure the consistency of employee performance, which will be reflected in the performance appraisal system and motivate employees to continue improving themselves (Suryosukmono & Pareke, 2022).

According to Robin (2016), managers must assume the role of learning leader; employees must become more self-directed in their learning. He explained how learning and development professionals' roles shift as they learn the ins and outs of designing the new 'learning ecosystem'; therefore, the 70:20:10 learning model could adapt in the workplace.

However, Clardy (2018b) believed that 70% of the rule of informal learning needs to be revised; thus, in his study, the findings mentioned the need to reemphasise formal and informal work-based learning and review the role of the Human Resources Department in organisations. Nevertheless, Franzen (2019) conducted a study that proposes a program designed based on the 70-20-10 framework to blend challenging experiences (70%), coaching/mentoring (20%), and formal training (10%) to strengthen participants' leadership while the evaluation is based on Kirkpatrick's four-level models. These examples of past studies highlighted the importance of focusing more on the informal learning method.

Based on all these studies, it is yet to be seen whether the training/learning approach in Malaysia also follows the 70:20:10 learning model that focuses more on informal (70%), non-formal (20%) and formal (10%) learning. This study argues that training or learning approaches implemented in the public sector should follow the Adult Learning Theory (ALT) by Malcolm Knowles (1980), which highlights three (3) learning approaches: formal, non-formal, and informal (Puteh et al., 2015). As the civil servants are all adults, applying all three (3) learning approaches in adult learning theory would enhance employee performance. Based on teaching kids how to learn and improve, the current pedagogy approach is unsuitable for dealing with adult learners in the organisation to improve their work performance (Puteh et al., 2015, 2020).

Conceptual Framework

Past researchers have shown that training/learning for employees should be based on adult learning theories. Although many studies Atan et al (2015); Saidin & Iskandar (2017); Mahadevan & Hsiang (2019); Kanapathipillai & Azam (2020) were conducted on the impact of training on employee performance in the organisation, not enough research has been conducted to understand the suitability of training approaches in enhancing employee performance among the PTD officers in Malaysia. Thus, there is a gap in empirical knowledge in that area, so this study aims to investigate which training approach better impacts employee performance in the organisation.

Figure 1 shows the conceptual framework of the study. This study is extracted from adult learning theory by Knowles (1970), which highlights three (3) learning approaches: formal, non-formal, and informal (Puteh et al., 2015). Firstly, (a) formal learning occurs in formal settings with planned activities to achieve tangible outputs such as certificates. Secondly, (b) non-formal learning is less structured than formal learning. It assumes a non-hierarchical relationship between the learner and facilitator. Finally, (c) informal learning/training refers to learning activities outside formal and non-formal learning. This continuous process is often irrespective of plan or intent.



Figure 1- Conceptual Framework of the Study- Is there a relationship between all learning strategies used by learners?

Methodology

This quantitative study investigates the suitable learning approaches in civil service training/learning environments. Four hundred twelve (412) respondents were involved in the study. The data is interpreted according to a 5-level mean score scale adopted from Bringula et al (2012); Amin & Ahmad (2012), which categorises very low mean scores ranging between 1.00 – 1.50, low mean score range between 1.51 – 2.50, medium mean score ranges between range 2.51 - 3.50 and high mean score ranges between 3.51 – 4.50 and very high mean score between 4.51 - 5.00. Table 1 shows the distribution of items in the survey. Section 1 is the demographic profile, and seven (7) items are measured. Section 2 has seven (7) items on formal learning, section 3 has seven (7) items on non-formal learning, and section 4 has eight (8) items on informal learning.

Table 1
Distribution of Items in Survey of Learning Approaches (41 items)

No	Variables	No. of items
1	Section 1: Demographic Profile of Respondents	7
2	Section 2: Formal Learning	7
3	Section 3: Non-Formal Learning	7
4	Section 4: Informal Learning	8
	Total Items	29

Table 2

Reliability Statistics for the Survey

Component	Number of Items	Cronbach's Alpha	Reliability Assumed
Section 2: Formal Training (IV1)	7	.618	Yes
Section 3: Non-Formal Training (IV2)	7	.726	Yes
Section 4: Informal Training (IV3)	8	.812	Yes

Table 2 shows the reliability statistics for the survey comprised of continuous data from Section 2 until Section 4. In this study, the reliability test was undertaken using Cronbach's alpha to obtain the reliability index of the instruments. Table 2 indicates that all variables used in this study are reliable, with a Cronbach's Alpha value above 0.6. However, according to Nunnally (1978), the recommended Cronbach's Alpha value is above 0.7. Table 2 presents the result of the test reliability analysis for this study and is followed by the analysis's interpretations. According to Table 2, the Cronbach Alpha Value for Formal Training is .618, slightly below 0.7, while Non-Formal Training and Informal Training are above 0.7. Data is then analysed using SPSS to reveal mean scores to answer all the research questions for this study.

Findings and Discussions**Findings for Demographic Profile (n=412)**

This section presents the demographic profile of the respondents. The respondents of this study are the Public Administrative and Diplomatic officers in Malaysia from grades M41, M44, M48, and M52 only. Seven (7) information were collected from our respondents, as depicted in Table 3 to Table 9.

Table 3

Percentage for Gender (n=412)

Q1: Gender		
1	Male	42.7%
2	Female	57.3%

Table 3 above depicts the percentage of the respondents based on gender. Of 412 respondents, 57.3% were female (236 respondents), while 42.7% were male (176 respondents); both constituted a response rate of 100%. Ideally, the gender of the respondents should be divided equally. However, the actual result showed that female respondents slightly dominated the study.

Table 4

Percentage for Age (n=412)

Q2: Age		
1	Below 30 years old	12.6%
2	31 to 40 years old	48.3%
3	41 to 50 years old	37.1%
4	Above 50 years old	1.9%

As respondents' ages vary, the highest number of respondents was 199 (48.3%), aged between 31 to 40 years old. The second-highest number of respondents was 153 (37.1%),

aged between 41 and 50. At the same time, the third rank was 54 respondents, representing 12.6% of those under 30 years old. The lowest number of respondents was eight (8) or 1.9%, representing those above 50.

Table 5

Percentage for Academic Qualification During Entry Level (n=412)

Q3: Academic Qualification During Entry Level		
1	Degree	83.7%
2	Master	15.3%
3	PhD	1.0%

Regarding the academic qualification during the entry level in Table 5, most respondents, at 345 or 83.7%, joined the service with a degree. Another 15.3% (63 respondents) had a master’s degree, and the remaining four (4) respondents, or 1,0%, had a PhD during their entry-level studies, constituting a response rate of 100%.

Table 6

Percentage for Highest Education Level (n=412)

Q4: Highest Education Level		
1	Degree	50.7%
2	Master	47.1%
3	PhD	2.2%

In the highest education level category, Table 6 reveals that most respondents were still with degree holders at 50.7% or 209 respondents, following 47.1% or 194 respondents with a master’s degree. The remaining 2.2% or nine (9) respondents refer to the PhD holders, which summed the number of respondents to 412 and the response rate at 100%.

Table 7

Percentage for Current Grade (n=412)

Q5: Current Grade		
1	M41	20.1%
2	M44	29.6%
3	M48	31.3%
4	M52	18.9%

According to the current position, Table 7 reveals that the highest percentage is 31.3% or 129 respondents from grade M48. The second-highest percentage of respondents is 29.6% or 122 respondents in grade M44, followed by respondents in grade M41, 20.1% (83 respondents). The lowest response was from respondents in grade M52, with 18.9% or 78 respondents.

Table 8

Percentage for Place of Service (n=412)

Q6: Place of Service		
1	Federal	88.8%
2	State	10.9%
3	Local Government	0.2%

Regarding the place of service, Table 8 above shows that most respondents (88.8% or 366 respondents) were dominated by those who worked in federal agencies, followed by those who worked in states (10.9% or 45 respondents). The remaining 0.2%, or only one respondent, works in the local government.

Table 9

Percentage for Years in Service (n=412)

Q7: Years in Service		
1	Less than five years	21.6%
2	6 to 10 years	6.1%
3	11 to 15 years	48.3%
4	16 to 20 years	23.1%
5	More than 20 years	1.0%
6	Less than five years	21.6%

Lastly, regarding years in service, Table 9 depicts the highest number of respondents from the 11 to 15 years of working experience group, with 48.3% or 199 respondents. The respondents from the 16 to 20 years of working experience group were 23.1% or 95 respondents, while another 21.6% or 89 of respondents represented less than five years of working experience. Finally, 1% or four (4) respondents have more than 20 years of working experience. The total number of respondents is 412, and the response rate for the years in service is also 100%.

Findings for Formal Learning (7 items)

This section presents data to answer research question 1: How do learners view formal learning? There are seven (7) items used to measure formal learning.

The data is interpreted according to a 5-level mean score scale adopted by (Bringula et al., 2012; Amin & Ahmad, 2012). Table 10 below depicts the mean value for each formal learning component, respectively.

Table 10

Mean for Formal Learning (n=412)

Section 2: Formal Learning	Mean	Value
2.1 Obtaining the highest academic qualification is essential for my career development.	4.11	High
2.2 A master's degree is a must for every PTD officer.	3.66	High
2.3 Scholarship (e.g., Hadiah Latihan Persekutuan / YDP Agong / Commonwealth, etc.) is vital to finance my study.	4.44	High
2.4 Without any scholarship, I am still willing to finance my studies.	3.41	Medium
2.6 Attaining the highest academic qualification provides me with relevant knowledge and skills related to my job.	4.12	High
2.7 I am working in the field according to my academic qualifications.	2.83	Medium
2.8 It is crucial to assign officers tasks according to their academic qualifications.	3.86	High
Overall Mean Value for Formal Learning	3.776	High

The first approach for adult learning is formal learning. Table 10 above depicts the mean findings for formal learning measured by seven (7) items. Although not all seven (7) items scored high, the overall mean value of 3.776 showed that it represents a high mean value. Five (5) items of the study scored high mean values, ranging from 3.51 – 4.50, and the remaining two (2) items scored medium or moderate mean values ranging from 2.51 – 3.50.

Item 2.1, "Obtaining the highest academic qualification is essential for my career development." scored 4.11, a high mean value, and item 2.2, "A master's degree is a must for every PTD officer." scored a high mean value of 3.66. Next, item 2.3, "Scholarship (e.g., Hadiah Latihan Persekutuan / YDP Agong / Commonwealth, etc.) is vital to finance my study." scored a high mean value of 4.44.

In contrast, item 2.4, "Without any scholarship, I am still willing to finance my studies." scored a medium mean value of 3.41. Besides, item 2.6, "Attaining the highest academic qualification provides me with relevant knowledge and skills related to my job," also scored a high mean value of 4.12. Next, item 2.7, "I am working in the field according to my academic qualification." scored a medium mean value of 2.83. Finally, item 2.8, "It is crucial to assign officers tasks according to their academic qualifications." scored a high mean value of 3.86.

The overall mean value of 3.776 for formal learning approaches indicated that the respondents agreed that formal learning is essential to encourage adult learning. It is because formal learning involves formal institutions that typically provide certificates, resulting in academic certification, including certificates, diplomas, and degrees. Therefore, people are motivated to pursue their studies to have higher academic qualifications, giving them more confidence in presenting themselves for future endeavours.

As the highest mean value came from the scholarship to fund the study with a score of 4.44, it is vital to have the scholarship to further studies at a higher level. For government servants, the Public Service Department (PSD) provides scholarships for civil servants to encourage them to study further. PSD offered *Hadiah Latihan Persekutuan* (HLP) for civil servants to pursue their studies at the Master's or Ph.D. level. There are three (3) categories of sponsorship, namely, *Cuti Belajar Bergaji Penuh dengan Biasiswa* (CBBPDB), *Cuti Belajar Bergaji Penuh Tanpa Biasiswa* (CBBPTB) and *Separa Biasiswa* (SB) (Ibrahim, 2022). Besides,

there are scholarships from other organisations and foreign countries where the candidates could apply if they did not secure government funds. Understandably, working adults have a life commitment and need funds to finance their studies.

The desire to pursue studies as part of formal learning also echoed the past study by Manuti et al (2015) that emphasised that formal learning includes five (5) criteria: the prescribed learning framework, an organised learning event or package, the presence of a designated teacher or trainer; the award of a qualification or credit; and the external specification of outcomes. The result also supported the findings by Rodriguez and Walters (2017), who viewed the formal training and development program as a pre-planned method that includes performance evaluations and learning solutions that can be completed during work hours or outside of work for a predetermined period.

Findings for Non-Formal Learning (7 items)

This section presents data to answer research question 2: How do learners view non-formal learning? There are seven (7) items used to measure formal learning. The second learning approach, which is non-formal learning, was measured by seven (7) items, as depicted in Table 11 below.

Table 11

Mean for Non-Formal Learning (n=412)

Section 3: Non-Formal Learning	Mean	Value
3.1 My organisation provides a training plan for all officers.	3.24	Medium
3.2 Knowledge and experience sharing is a routine activity in my organisation.	3.62	High
3.3 A coaching culture is applicable in my organisation.	3.37	Medium
3.5 Workshop activities give me new input to apply in my daily work.	4.12	High
3.6 Job rotation helps me to be more knowledgeable and skilful.	4.39	High
3.7 Job attachment in another agency allows me to increase my work experience.	4.41	High
3.8 Attending courses in INTAN can fulfil my training needs.	3.89	High
Overall Mean Value for Non-Formal Learning	3.8623	High

Table 11 above showcases the mean findings for non-formal learning measured by seven (7) items. The overall mean value for this component was high (3.8823). Five (5) items of the study scored high mean values ranging from 3.51 – 4.50. Two (2) items scored medium or moderate mean values ranging from 2.51 – 3.50.

Item 3.1, “My organisation provides a training plan for all officers.” scored a medium mean value of 3.24. In contrast, item 3.2, “Knowledge and experience sharing is a routine activity in my organisation,” scored a mean value of 3.62. Meanwhile, item 3.3, “A coaching culture is applicable in my organisation.” scored a medium mean value of 3.37.

Item 3.5, “Workshop activities give me new input to apply in my daily work.” and item 3.6, “Job rotation helps me to be more knowledgeable and skilful,” scored high mean values of 4.12 and 4.39, respectively. Also, item 3.7, “Job attachment in another agency allows me to increase my work experience.” scored a high mean value of 4.41. Nevertheless, item 3.8, “Attend courses in INTAN able to fulfil my training need.” also scored a high mean value of 3.89.

The overall mean value of 3.8623 for non-formal learning implies that this learning approach is essential to ensure that adult learners can increase competencies, skills, and abilities outside the official education. Even though non-formal learning is the training and learning activities outside formal institutions, the programs are still structured and well-organised, i.e., seminars, workshops, conferences, or short courses that provide the participants with a letter of attendance. Participation in such programs would also enable fulfilling the minimum requirement days of training in a year.

The results showed that non-formal learning is also essential in providing employee training. It echoed Seidle et al.'s (2016b) findings, which stated that combining coaching, classroom instruction, feedback, and experiential training has significantly impacted employee performance. Also, it supported the study by Shem & Manjale (2017) that stated that coaching and mentoring also significantly affect employees' performance.

The two highest mean values in this study were job attachment and job rotation. The result shows that different working environments motivate workers to work harder and perform better. PSD also introduced the Cross Fertilization Program (CFP) in 2011, allowing civil servants to experience temporary job attachment in other agencies, including the private sector. It is part of government efforts to expose its civil servants to a high-performance culture, especially in the private sector, and adapt it when they return to their organisations (JPA, 2013). This result also supported the findings by Martin et al (2014) that highlighted other suitable approaches, including training methods, case studies, games-based training, internship, job rotation, job shadowing, lecture, mentoring and apprenticeship, programmed instruction, role-modelling, role play, simulation, stimulus-based training, and team training.

Nevertheless, PSD introduces a career enhancement plan for performing civil servants through Subject Matter Expert (SME) to acknowledge those who possess high intellectual, have expertise and vast experience in their field of work, and can be the reference in the public sector (JPA, 2016). To get a pool of experts, PSD must also cater to their needs for proper training and furnish them with relevant skills and knowledge.

Findings for Informal Learning (8 items)

This section presents data to answer research question 3: How do learners view informal learning? There are eight (8) items used to measure formal learning. The third learning approach, informal learning, was measured by eight (8) items, as depicted in Table 12 below.

Table 12

Mean for Informal Learning (n=412)

Section 4: Informal Learning	Mean	Value
4.1 I have the capability to look for suitable training modules for myself.	4.07	High
4.2 I am willing to spare time for self-learning using online platforms, books, or manuals.	4.08	High
4.3 Exploring solutions for a problem sometimes provides unintended insights to solve another problem.	4.34	High
4.4 Job discussion with my colleagues improves my knowledge and skills.	4.55	Very High
4.5 Peer relationship guides me in completing tasks and achieving goals.	4.38	High
4.6 I obtain unexpected insights from discussion (brainstorming) with my team.	4.45	High
4.7 When I make a mistake, my boss or a co-worker coaches me to identify what to do to avoid making a mistake again.	4.13	High
4.8 Interacting with colleagues sometimes adds unintended, critical solutions to my working process.	4.46	High
Overall Mean Value for Informal Learning	4.3037	High

Table 12 above shows the mean findings for informal learning measured by eight (8) items. The overall mean value for this component was high (4.3037). One (1) item scored a very high mean value (4.55), while the remaining seven (7) items scored a high mean value, respectively.

Item 4.1, which is "I have the capability to look for suitable training modules for myself." and item 4.2, which is "I am willing to spare time for self-learning using online platforms, books, or manuals." scored a high mean value 4.07, and 4.08, respectively. For item 4.3, "Exploring solutions for a problem sometimes provides unintended insights to solve another problem." the mean score is high at 4.34. However, item 4.4, "Job discussion with my colleagues improves my knowledge and skills.", scored a very high mean value of 4.55. It shows that job discussion is a routine activity in the organisation, is highly practised, and impacts the adhering of knowledge and experience.

Regarding item 4.5, "Peer relationship guides me in completing tasks and achieving goals." it scored a mean of 4.38. Meanwhile, for item 4.6, "I obtain unexpected insights from discussion brainstorming) with my team.", the score high mean is 4.45. Next, for item 4.7, "When I make a mistake, my boss or a co-worker coaches me to identify what to do to avoid making a mistake again." The scored high mean value is 4.13. Finally, item 4.8, "Interacting with colleagues sometimes adds unintended, critical solutions to my working process.", has a high mean value of 4.46.

The overall mean value of 4.3037 for the informal learning approach demonstrates that learning or training activity could also occur unintentionally in informal settings. This result supported a past study by Nygren et al (2019b) that viewed informal learning as unstructured, often unintended and occurs outside a conventional learning setting as learning from daily life actions related to work, family, or leisure activities. Also, it echoed the findings by Harding (2021); Manuti et al (2015) that informal learning takes place irrespective of plan or intent, reflecting the nature of learning as a continuous process.

The informal learning process includes intended, incidental, and tacit learning and will likely be overlooked. Apart from learning from others, informal learning could also refer to self-learning activities, including learning by experience or mistakes. Thus, learning culture and environment need to be promoted in the organisation to nurture the process of self-learning and develop employees' potential. Suryosukmono and Pareke (2022) support the idea that the drive for effective informal learning will ensure the consistency of employee performance, which will be reflected in the performance appraisal system and motivate employees to continue improving themselves.

Recommendation

This study outlines the results of investigating the learning approaches among adult learners. Results from the survey indicated a high mean value for all three components of learning approaches, namely, formal, non-formal, and informal learning. This study revealed that these three approaches, part of adult learning theory, must be consolidated to give adult learners the best training or learning experience.

The 70-20-10 learning model can be an effective way to structure learning for various reasons. First, it emphasises experiential learning over formal instruction. It allows employees to learn in various ways, including through their own experiences on the job and in informal settings. Second, the model encourages employees to apply what they have learned in the workplace. It helps them develop skills and knowledge that can be used on the job. Finally, the model allows the organisation to focus its training resources on the most critical areas for employee success. It can give value for money and achieve the targeted result of enhancing employee performance.

Next, the ministries and agencies should encourage more sharing based on tacit knowledge. Tacit knowledge is essential for two reasons: (i) It can help employees perform better, and (ii) it can help employees cooperate and work together effectively. The benefits of using tacit knowledge in the organisation are clear: it can improve employee performance. Tacit knowledge is often unique to a particular individual or group and is challenging to transfer to another person. In addition, using tacit knowledge allows employees to cooperate more effectively with one another since they know about specific concepts and skills. In civil service, the PSD has already introduced coaching and mentoring in the organisation. Thus, it can be enhanced to make it more practical to implement. It is not necessarily from the higher to lower ranks of employees but could also be done through 360-degree approaches. Sharing experience (tacit knowledge) should be a norm in organisations because it builds a community and learning culture, can retain knowledge, encourages collaboration, and enhances collective knowledge. Directly, it gives a better way of doing things and connects remote employees to knowledge. The employees would also feel more potent as a team; they are connected and do things together, thus increasing their performance.

The PSD could also encourage proper training needs analysis (TNA) to point out necessary competencies throughout years in service. For example, for the PTD officers, PSD has introduced a leadership assessment program (LEAP) for each grade to assess critical thinking, communication skills, collaboration, and creativity competencies. It assesses the ability to think, lead, speak and act. However, the PSD does not provide information on how they could gain the skills because it is under the organisation's jurisdiction to provide relevant employee training. In this view, it is crucial to have a clear training roadmap according to the level of service. Hence, they are ready and well-prepared before attending an assessment to get a higher position. Before that, conducting TNA on each employee also helps to understand

the gap in knowledge and technical skills before channelling the resources accordingly and earning a positive impact after the training. Also, TNA enables the management to provide courses/training that were not on the list before. They can focus on the right areas and prioritise the training needs and who should attend it.

Nevertheless, the employees need the skills and knowledge they can implement daily. The evaluation of skills and knowledge and the completeness of training courses every year should also be highlighted in the annual assessment so that employee performance can be further enhanced. It will reflect the importance of training when training is part of each employee's Key Performance Indicators (KPI). The evaluation could be divided into two (2) categories, namely Generic and Functional, where general knowledge and specific criteria could be evaluated based on individual performance. Indirectly, it will encourage the employee to attend training regularly as they have full support from their superiors and know the importance of having specific skills and knowledge in climbing up service positions.

Finally, the organisation could also practice and explore the strategic knowledge management concept, which involves identifying, arranging, retaining, and sharing the knowledge and experience of employees within an organisation. It also involves people, processes, platforms, partnerships, and problem-solving. It could also include the overall approach to aligning its knowledge resources and capabilities to its strategy's intellectual requirements, resulting in better employee and organisational performance.

Conclusion

The findings from this study confirm that adult learning theory is vital to be used in training approaches for adult learners. Formal, non-formal and informal learning approaches are equally important; however, different weightage must be applied to fulfil the employees' needs.

As for the government, the study may provide some input since the PSD is currently crafting a new policy on training for civil servants. As for HR practitioners, the input is beneficial in crafting suitable modules for their employees. On the other hand, the employees (civil servants) may also use the findings to find suitable courses to join training to enhance their knowledge and skills. Finally, more studies need to be done so that researchers can understand this issue better and perhaps propose suitable modules for training in civil service.

To summarise, this study was appropriate and may most likely be expanded upon to provide better practice in civil service training. As a result, the findings should be seen as indicative but not necessarily generalisable to all services in Malaysia.

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