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Abstract

Facing the challenges of new norms in the era of the pandemic Covid-19 requires us to have a high level of resilience. The staff of many organizations must deal with a variety of challenges, changes, and uncertainties. This study aimed on exploring the resilience level of lecturers in terms of their resilience level, profile, and differences in relation to their demographic background. A quantitative-based cross-sectional research design was employed for this study. A questionnaire was distributed to the lecturers from a training institute in Malaysia. Stratified random sampling was used in determining the samples for this study, the lecturers from all five (5) campuses of the training institute, and a total of 200 respondents were obtained. There were seven (7) domains of resilience explored in this study. Based on the finding, it was found that the resilience level of staff from this training institute was very high. It was also found that there was a significant difference in resilience level in relation to their retirement age. Therefore, this study may function as leverage for the management of this institutions to take necessary actions to further strengthen the resilience level among the lecturers especially for the low domain.

Keywords: Resilience, Post Covid-19, Training Institute, Education, Malaysia

Introduction

Facing the challenges of new norms in the era of the pandemic Covid-19 requires us to have a high level of resilience. The staff of many organizations must deal with a variety of challenges, changes, and uncertainties. Resilience can be referred to as how a person recovers from a setback (Connor, 2003). Bhamraa et al (2011) defined resilience as an element's ability to recover from disruption and return to a stable state. When confronted with adversity, resilient employees are more emotionally stable, more open to new experiences, and more adaptable to changing demands (Tugade & Fredrickson, 2004). While continuous, substantive change is becoming more common for organizations and their members, research shows that resilient people are better equipped to deal with it (Tugade & Fredrickson, 2004). Employees' commitment to organizational change and overall performance is also positively influenced by resilience (Shin et al., 2012; Luthans et al., 2005).

Individual resilience can be increased or decreased within an organizational setting (Reyes et al., 2015). Executives and senior managers (Grant et al., 2009), middle managers (Sherlock, Storey, Moss, & Timson, 2013), government employees (Waite & Richardson, 2004), and physicians (Waite & Richardson, 2004) are among those who are becoming more resilient (Sood et al., 2011). It has also been shown that servant leadership can reduce stress in employees, which is an indicator of employee resilience (Norman et al., 2005; Shek & Leung, 2016; Badger, 2017). As for an educational leadership and management training institute, the lecturers must have high resilience in facing challenges.

Problem Statement

Staff in organizations have learned that they must face the challenges of working within new norms overnight due to the Covid-19 pandemic that has swept all over the globe. The majority of them have never faced a catastrophe of this magnitude before. Staff must face not only work challenges, but also health challenges, as the risk of contracting Covid -19 is extremely high.

Organizations should focus on increasing disaster preparedness and, more importantly, organizational resilience as disasters are becoming more complex, such as the Covid -19 pandemic. When faced with unpredictable incidents like Covid -19, organizations such as educational training institutions should be committed to ensuring organizational change. This is because resilience is a strategy for adapting to a new situation so that we can deal with emergencies and crises, especially when the organization's survival is at stake and recovery is impossible. Environmental factors such as socio-ecological, people and well-being, and work-related in some organizations help to develop a resilience profile to increase the capacity to anticipate, adapt, and recover equilibrium or even gain a new advantage position after the disruption.

Even though research on organizational resilience has grown in recent years (Van Trijp et al., 2019), there is still a gap (Desjardine et al., 2019), and it is critical to investigate the multifaceted aspects of resilience (Liu et al., 2019). There are many studies conducted on organizational resilience looking at individuals within the organization, which focuses on traits that predict personal resilience. Only a few studies have looked at the dynamic processes in organizations and how employees' behavior in the workplace is affected by resilience (Luthans & Youssef-Morgan, 2017). Several studies have attempted to address the key questions of identifying the variables that may promote an organization's resilience, as well as their implications for organizational functioning (Flores, 2018). Organizations must strive for and constantly adapt to change to maintain competitiveness and viability in uncertain environments. Disruptions can have a direct impact on an organization's ability to market finished goods and provide critical services to customers (Juttner, 2005).

As a result, organizational resilience is a growing area of interest in operations management and other related fields. The current Covid-19 crisis emphasizes both the borderless nature of risk (Smith & Fischbacher, 2009) and the need for organizations to develop appropriate capabilities to mitigate its occurrence. However, organizations must learn how some organizations can overcome disruptive events and disasters while others struggle or fail to do so. They must identify the factors that allow these organizations to adapt and transcend these

events, as well as the factors that cause some of these organizations to fail. Thus, this study on exploring the resilience level of lecturers is important and beneficial to the organization.

Research Objectives

The objectives of this research are

1.1. to determine the resilience level of staff.
1.2. to determine the profile of staff resilience level.
1.3. to identify the difference in staff resilience levels in relation to their demographic backgrounds.

Research Questions

The research questions are

1.4. What are the resilience levels of staff?
1.5. What is the profile of staff resilience level?
1.6. What are the differences in staff resilience levels in relation to their demographic backgrounds?

HYPOTHESIS

The null hypotheses of this study are

1.7. There is no significant difference in staff resilience level in relation to their length of service.
1.8. There is no significant difference in staff resilience level in relation to their age.
1.9. There is no significant difference in staff resilience level in relation to their grades.
1.10. There is no significant difference in staff resilience level in relation to their retirement age.

Importance of Research

It is hoped that this research will be beneficial from both academic and practical standpoints. According to Ledesma (2014), there is a critical need for a comprehensive understanding of resilience in an organization as the study can provide empirical data related to the resilience level of individuals in an organization.

From a practical standpoint, it is hoped that this study will assist the staff development department in planning future continuous professional development (CPD) activities or programs based on the needs and requirements of the staff. It also allows management to align or realign the department's tasks and responsibilities with the workload, capacity, and capabilities of the staff.

This research can also serve as a springboard for future researchers who want to apply the same theory and methods to different populations, such as support staff or educational leaders. The findings may help the organization to plan for educational leaders' continuing education during these challenging new norms and several protective factors that policymakers should leverage when considering stress-reducing policies (Mækelæ, et al., 2021).

Conceptual Framework

Five (5) independent variables (positive, focused, flexible, organized, and proactive) based on Conner (1993) were chosen for this study. Resilience level will be the dependent variable and how demographic backgrounds (length of service, age, grades, and retirement age**)** influence the resilience level will be explored. Figure 1 shows the conceptual framework of this study.

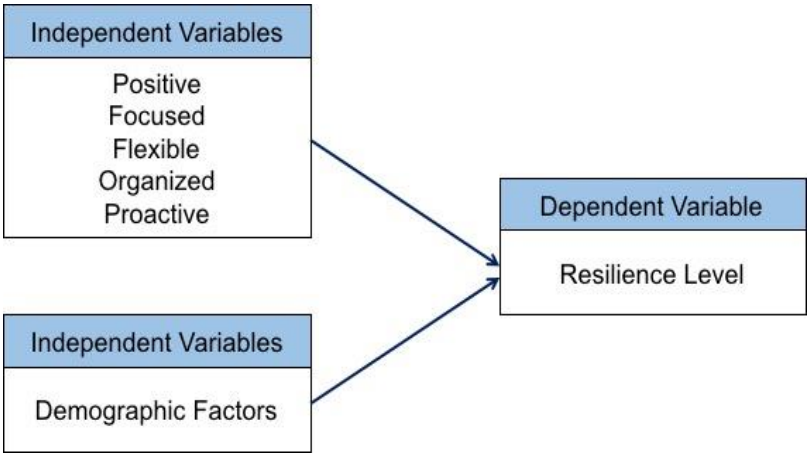

Figure 1. Conceptual framework

Literature Review

There is ample evidence that complex challenges such as natural disasters, economic or financial crises, globalization, technology, innovation, and risk management, which pervade all areas of organizations, are bolstering organizations today. Hence, there is a need to conduct research on organizational resilience with a focus on crisis management, as this area is new and limited in the field of human resource development (Wang et al., 2009; Ho et al., 2014). There are several research that discussed the nature and challenges of the resilience concept, but the investigations on organizational resilience are limited to the individual (Lengnick-Hall et al., 2011), group, and organizational levels (Duchek, 2019). Empirical studies on the relationship between organizational resilience and learning are scarce in the ASEAN context, and the current COVID-19 crisis provides a timely opportunity for this novel research (Bhamra et al., 2011).

Organizational resilience is a strategic requirement for organizations to thrive in today's volatile and ever-changing world. Economic recessions, natural disasters, and pandemics all necessitate building resilience across all aspects of the organization. Denyer (2017) defined resilience in organizational studies as an organization's ability to anticipate, prepare for, respond to, and adapt to incremental change and sudden disruptions to survive and prosper. According to Bhamraa et al (2011), resilience is an element's ability to return to a stable state following a disruption. Resilience is also viewed as a function of complex systems (Fiksel, 2006), which can be applied at various levels, including ecosystems (Brand, 2009), society (Allenby & Fink, 2005), communities (Norris, 2008), organizations (Starr et al., 2003), and individuals (Powley, 2009). It refers to an organization’s ability to anticipate and absorb external disruptions.

According to Bell (2002), firm culture is one of the components of resilience, which is based on the principles of organizational empowerment, intent, trust, and transparency. In addition, the workforce is at the heart of organizational resilience. Employees who have been carefully

selected by their employers as skilled and creative individuals will usually overcome any challenges or disruptions. Organizations assign other resources, such as financial and material resources, to their employees to build organizational resilience. Regardless, even if an organization has sufficient resources to manage its operations, this is insufficient. This is since achieving an organization's goals necessitates strong leadership and determination.

A human capital management strategy can help to build an organization's resilience. When distributed throughout the organization, it achieves the ability to respond resiliently when confronted with disruptions, changes, or shocks. Visser (2020) divides the concepts of human capital future resilience into three categories: (i) socio-ecological resilience, (ii) organizational resilience, and (iii) individual resilience.

Socio-ecological Resilience

In different fields, resilience is classified in various ways. The ecological origins of resilience emphasize moving away from bouncing back to a point of equilibrium, and this notion has become increasingly prominent in explaining the meaning of resilience in a broader context. The most important concepts for understanding socio-ecological resilience are those dealing with ecological and social structures. According to many resilience scholars, the central concept of socio-ecological resilience is widely used as a concept for understanding the relationships between social and ecological structures, planning for, and mitigating global environmental disasters, and as a framework for disaster preparedness and response (MacKinnon & Derickson, 2012). Through the connections between well-being, economic activities, and environmental conditions, social and ecological systems are considered connected and interdependent on one another in socio-ecological resilience frameworks (Walker & Salt, 2012).

Biggs et al (2015) argue that there are seven principles for building resilience in a socio-ecological system: maintaining diversity and redundancy; maintaining connectivity; actively responding to issues; fostering complex adaptive systems thinking; encouraging learning; broadening participation and engagement and promoting polycentric governance. Other researchers contend that adaptive capacity and transformation have emerged as components of how complex systems behave and respond to challenges within socio-ecological resilience frameworks (Pike et al., 2010). These two critical elements refer to the patterns and processes of behavior that engage change to keep a system within the parameters of critical thresholds (Walker & Salt, 2012). This process entails the ability to learn from and store lessons from disturbances and previous experiences, as well as the ability to predict and adjust to unforeseeable circumstances (Engle, 2011). Self-organization, the ability to live with instability, the ability to respond quickly and efficiently to disruptions, and the ability to maintain a store of resources are all regarded as critical components of developing adaptive capability (Walker & Salt, 2012).

A more dramatic direction is the transition, in which a system changes from one state to another because of a change in system parameters (Nelson et al., 2007). Walker and Salt (2012) stated that the prerequisites for transformation within a socio-ecological system are readiness to change, choice to change, and capacity to change.

Organizational Resilience

When faced with life's adversities, some people snap, while others snap back (Coutu, 2002). The characteristics of resilience are what make the difference between individuals, communities, and countries surviving, adapting, and even thriving during the most unexpected life difficulties (Bhamra et al., 2011). The concept of organizational resilience has recently attracted research attention as management scholars began to investigate how organizations grow in the face of challenges and develop new capabilities (Coutu, 2002). Studies on organizational resilience have defined resilience from a systematic standpoint, with organizational resilience defined as the ability to adjust to foreseen disruptions and adapt to unexpected sudden shocks (Oeij et al., 2017).

The ability of an organization to respond to disasters and crises in an efficient and coordinated manner is reflected in its disaster and crisis response capability (Hanson, 2006). According to Gaillard (2007), organizations' response capability is classified into two types: vulnerability and resilience. Vulnerability can be defined as the acceptance of crises and, as such, represents people's and organizations' susceptibility to suffering and, as a result, the transformation of minor incidents into disasters. Resilience, on the other hand, represents the levels of tolerance and draws on the coping strategies used to survive adversity. This issue was highlighted by Pelling (2003), who defined resilience as the ability to cope with or adapt to risk or disaster/crisis stress to survive and minimize damage. As a result, resilience is regarded as the positive side of vulnerability. It represents the ability to withstand damage and change caused by future events (Gaillard, 2007).

Individual Resilience

Coutu (2002) defines resilient people as having three characteristics in common: acceptance of reality, a strong belief that life has meaning, and the ability to improvise. Werner and Smith (2001) concurred, identifying four factors for individual resilience: problem-solving abilities, favorable perceptions, positive reinforcement, and strong faith. According to Youssef and Luthans (2007), there is a link between resilience and job satisfaction, work happiness, and organizational commitment. Schaufeli and Bakker (2004) also discover a link with workplace engagement, where a lack of individual resilience may be associated with burnout and other health problems. Vigor is one of the elements of engagement, which refers to high levels of energy and mental resilience while working, as well as the willingness to invest effort in one's work and persevere in the face of difficulties.

A resilience study was conducted by observing how an individual or an organization grows (Rodriguez-Sanchez et al., 2020). The findings indicate that resilience enables people to respond to and cope with all changes more efficiently and effectively. It can assist individuals in maintaining higher levels of performance, improving their sense of well-being, and coping with fluctuating emotions. Resilience also allows people to make sense of change more quickly, so they can understand how it affects them and others. Simultaneously, resilience can assist people in dealing with multiple changes without becoming overwhelmed. Resilient people are not immune to change because they feel the effects just like everyone else, but they will move through the transition faster and more positively. They may adjust to the change quickly and with much less turbulence (Hodges, 2017).

Scholars have observed that resilience is most visible when individuals or organizations are exposed to turbulent, uncertain, or dynamic environments (Lengnick-Hall, Beck, & Lengnick-

Hall, 2011). Individual resilience may be especially important for organizational success during times of radically changing environmental conditions, according to macro approaches to resilience (Lengnick-Hall et al., 2011).

The Characteristics of Resilience

Conner (1993) defines resilience as the ability to demonstrate both strength and flexibility during the change process while exhibiting minimal dysfunctional behavior and proposes a model for resilience that includes five major and two sub-characteristics. These seven characteristics include:

i. **Positive (World):** People who have a positive outlook on the world see their surroundings as complex and challenging. Instead of problems, they see opportunities and possibilities. People with a positive outlook on life are better able to overcome negative situations and create positive ones.
ii. **Positive (Self-esteem):** People who have positive self-esteem regard themselves as valuable and capable. They can act with confidence and accept failure without losing their sense of self-worth. They have an internal locus of control, believing that they could make decisions that will affect their future.
iii. **Focused:** Individuals with a strong sense of direction and goals are more likely to be able to deal with difficult situations. In difficult situations, they can correct themselves and use their energy effectively.
iv. **Flexible (Thoughts):** Individuals with flexible thinking patterns can see multiple points of view and tolerate ambiguity. They can reframe events from various perspectives, resulting in more creative actions and effective solutions.
v. **Flexible (Social):** Individuals who can rely on others for assistance have stronger social bonds. They recognize the interdependence with others on which they can rely in difficult times.
vi. **Organized:** Individuals who are organized can tame the chaos and create structure in ambiguous situations. They can assess situations, decide on a course of action, and plan the steps required to move forward.
vii. **Proactive:** The final characteristic is the proactive stance, in which individuals are willing to act decisively. They are willing to take some risks and endure discomfort in the hope of achieving positive results. They seek out difficulties rather than avoid them.

Factors Affecting Resilience

A study by Sull et al (2015); Ang et al (2018) found that resilience increases with age and working experience (job banding). Ang et al (2018) supported by Purvis et al (2019) added the influence of having higher educational qualifications to higher resilience, in coping and adapting to the rapidly changing pandemic challenges, that further contributed to the confidence that comes with knowledge and prior experience. White-collar workers also recovered faster (by six weeks) from the impact of the pandemic Covid-19 than blue-collar workers (Cotofan, et al., 2021). Hart et al (2014) have found that reduced inner balance, a sense of conflict, and difficult workplaces can contribute to reduced resilience. However personal characteristics can help build resilience such as hope, self-efficacy, work-life balance, etcetera.

Findings from Alizadeh and Sharifi (2022) showed that several factors related to the following three themes play a significant role in promoting social resilience: (1) participative and supportive governance, (2) resource accessibility, and (3) citizen participation and lawfulness. Fernández-Prados et al. (2021) concluded the importance of confidence in the leaders in fostering social resilience.

Research Methodology

Research Design

This study is descriptive in nature. A quantitative-based cross-sectional research design was employed for this study where data from many different individuals were collected at a single point in time and statistical inferences about the population were made. This approach enabled the study to be conducted within a short time and with the minimum cost incurred. Data from a large population was also able to be obtained.

Instrument

A questionnaire was developed based on the domains of resilience suggested by Conner (1993) and was validated by a panel of experts. There were minor amendments to the questionnaire based on expert panel suggestions. The questionnaire consisted of a total of 21 items as in Appendix A and was used in this study.

Likert Scale was adopted which consists of 6 degrees to determine the level of respondents' agreement with each statement in the questionnaire as shown in Table 1.

Table 1
Likert Scale.

Scale	Degree
Strongly Agree	6
Agree	5
Slightly Agree	4
Slightly Disagree	3
Disagree	2
Strongly Disagree	1

To interpret the Likert Scale results, a weighted mean to represent each statement was computed. Table 2 shows the level of agreement associated with each weighted average mean range.

Table 2
Weighted mean - Level of agreement

Weighted Mean	Level of Agreement
More than 5.17 - 6.00	Very high
More than 4.34 - 5.17	High
More than 3.51 - 4.34	Moderately High
More than 2.68 - 3.51	Moderately Low
More than 1.85 - 2.68	Low
1.85 and less	Very Low

(Adopted from Al-Khadash et al., 2017)

Pilot Study

A pilot study was conducted to obtain the reliability of the instrument. A total of 30 respondents are among Institut Aminuddin Baki (IAB) staff which includes the management and different levels of academic staff involved in the pilot study. Table 3 shows the distribution of pilot test respondents.

Table 3
Pilot test respondents

Category	HQ	Genting Highlands	Jitra	Sarawak	Sabah	Total
Head of Centre	1	-	-	-	-	1
Head of Department	2	1	1	1	1	6
DG54 and above	2	1	1	1	1	6
DG52	2	1	1	1	1	6
DG48	2	1	1	1	1	6
DG44	1	1	1	1	1	5
Total	**10**	**5**	**5**	**5**	**5**	**30**

The Cronbach's Alpha coefficient value of this instrument was 0.938, which is more than 0.7 demonstrating the items in the instrument had acceptable internal consistency.

Population and Sampling

This study was conducted at Institut Aminuddin Baki (IAB), Ministry of Education, Malaysia. Stratified random sampling was used in determining the samples for this study, the lecturers from all five (5) campuses of IAB; Headquarters, Genting Highlands, Jitra, Sarawak, and Sabah.

Table 4 shows the population, targeted number of samples, and respondents from each campus. Those involved with the pilot study were excluded as respondents.

Table 4
Samples

Campus	Population	Targeted Number of Samples	Number of Respondents
Headquarter	160 (46%)	88 (46%)	86 (43%)
Genting Highlands	95 (27%)	51 (27%)	49 (25%)
Jitra	45 (13%)	25 (13%)	35 (17%)
Sarawak	25 (7%)	13 (7%)	15 (7.5%)
Sabah	25 (7%)	13 (7%)	15 (7.5%)
Total	**350**	**190**	**200**

The size of randomly chosen samples from the lecturers' population such that the sample proportion will be within +-0.05 percent of the population with a 95 percent level of confidence is determined using the table developed by (Krejcie and Morgan, 1970). A minimum of 186 lecturers were needed as samples for this study as suggested by the table developed by (Krejcie and Morgan,' 1970). Thus, a total of 200 lecturers as the respondents of this study was sufficient. As shown in Table 4, the number of targeted samples for each campus was determined by the percentage of the population from each campus, i.e. proportionately. For example, the Headquarter population was 160, divided by total population of 350 was 46%. Hence, 46% of targeted sample should come from the Headquarter, that was 88.

Data Collection Method

The survey was distributed electronically to all respondents using google Forms which was sent/shared using email and social media such as WhatsApp. Data were obtained electronically and automatically from the google form responses.

Data Analysis Method

Data were analyzed quantitatively using Statistical Package for Social Sciences (SPSS) Version 18. Table 5 shows the details of the quantitative data analysis used.

Table 5
Data Analysis.

Research Question (RQ)	Type of Analysis	Test/Procedure
RQ1: Staff resilience level	Descriptive statistical analysis	Percentage Mean Standard deviation
RQ2: Profile of staff resilience level	Descriptive statistical analysis	Percentage Mean
RQ3: The difference in resilience level in relation to demographic backgrounds	Inferential statistical analysis	t-test ANOVA

Research Findings
The findings of this study are presented beginning with the demographic background of the respondents and according to the objectives of the study.

Data Analysis of Section A, Demography
A total of 200 respondents from five (5) different campuses of the institute answered the questionnaire. The data are presented according to their grades, designation, age, and retirement age.

Grade of Respondents
Figure 2 shows the respondents' distributions based on their grades. The majority of 34% (67 respondents) of the respondents were DG54 and above, 37% (74 respondents) were DG48, 20% (40 respondents) were DG52, and 9% (19 respondents) were DG44. None of the respondents were DG41.

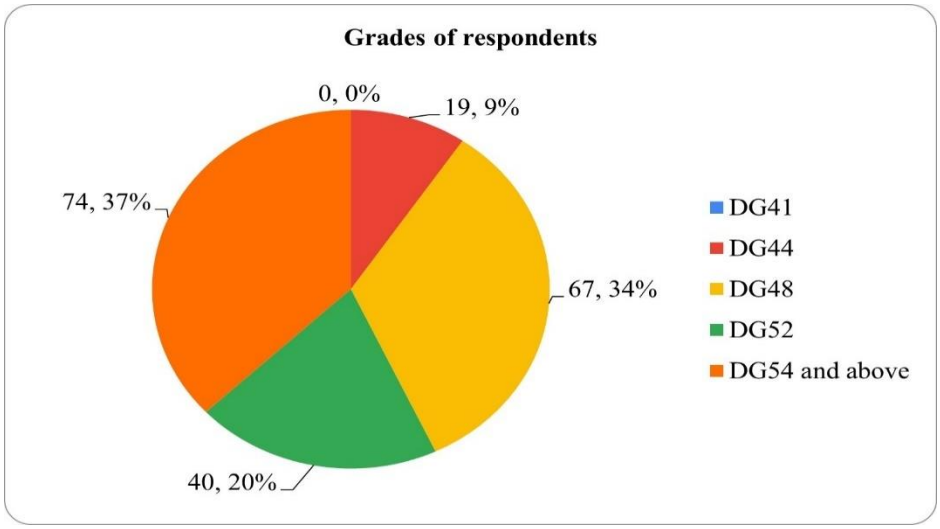

Figure 2. Grade of respondents

Designation of Respondents

Figure 3 shows the respondents' distributions based on their designation in the institute. The majority of 68% (136 respondents) of the respondents were among Senior Lecturers, 21% (42 respondents) were among the Head of Department, 8% (16 respondents) were from the Management Level and above, and 3% (6 respondents) were from other designations.

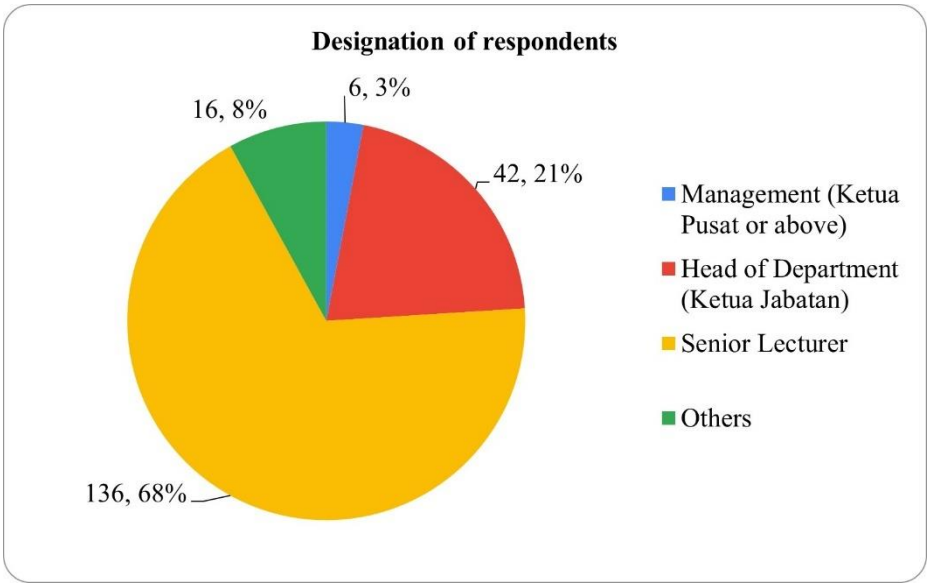

Figure 3. Designation of respondents

Age of Respondents

Figure 4 shows the respondents' distributions based on their age group. 39% (67 respondents) of the respondents were between the age of 51 to 55 years old, 25% (44 respondents) were between the age of 46 to 50 years old, 22% (38 respondents) were between the age of 41 to 45 years old, and 10% (18 respondents) were 56 years old and above. There were only 4% (7 respondents) of the respondents at the age of 40 years old and below.

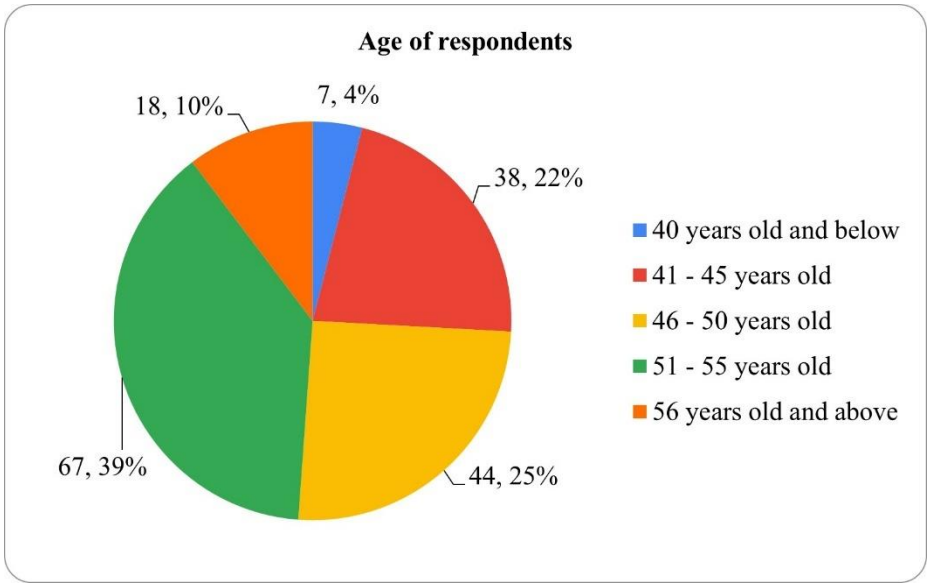

Figure 4. Age of respondents

Retirement Age of Respondents

Figure 5 shows the respondents' distributions based on their retirement age. The majority of 74% (147 respondents) of the respondents will retire at the age of 60 years old, 13% (26 respondents) will retire at the age of 58 years old, and 12% (24 respondents) will retire at the age of 56 years old. There was only 1% (1 respondent) of the respondents will retire at the other age.

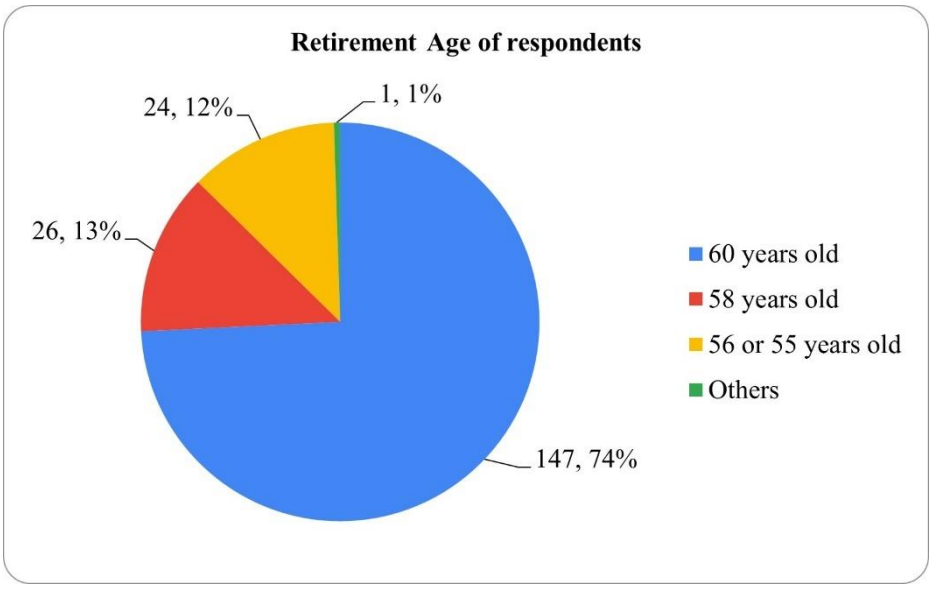

Figure 5. Retirement age of respondents

Data Analysis of Section B, Staff Resilience Level

There are seven domains of resilience proposed by Conner (1993) that were used in this study which includes five (5) major and two sub-characteristics, i.e., positive (world), positive (yourself), focused, flexible (thoughts), flexible (social), organized, and proactive. Table 6 shows the grand mean and mean of resilience domains and the level of agreement based on the mean.

Table 6
Mean of resilience domains and the level of agreement based on the weighted mean range.

No.	Domain	Mean	Level of Agreement
1.	Positive (World)	5.28	Very High
2.	Positive (Yourself)	5.37	Very High
3.	Focused	5.33	Very High
4.	Flexible (Thoughts)	5.10	High
5.	Flexible (Social)	4.91	High
6.	Organized	5.11	High
7.	Proactive	5.21	Very High
	Grand Mean	**5.19**	**Very High**

Referring to Table 6, the grand mean of respondents' resilience level was 5.19 and the level of agreement was very high based on the weighted average mean range. Based on this finding it was found that the resilience level of staff from this training institute was very high.

Profile of Staff Resilience Level

From Table 6 also we can see that profile of staff resilience level where the domain with the highest level of agreement and mean is positive (yourself) with a mean of 5.37. Three other domains scored very high levels of agreement and means. The domains were focused with a 5.33 mean, positive (world) with a 5.28 mean, and proactive with a 5.21 mean. The domain with the lowest mean and level of agreement is flexible (social). Conner (1993) believes flexible (social) individuals can rely on others for assistance and they have stronger social bonds. They recognize the interdependence with others on which they can rely in difficult times.

The profile of staff resilience level based on each item is as shown in Table 7 where the frequency, mean and standard deviation of each item were presented.

Table 7
Frequency, the mean, and standard deviation of items.

No.	Statements	n (%)						Mean	SD	Level of Agreement
		1	2	3	4	5	6			
1.	I see complex environments as a challenge.	1 (0.5)	1 (0.5)	6 (3.0)	17 (8.5)	85 (42.5)	90 (45.0)	5.27	0.843	Very High

No.	Statements	n (%)						Mean	SD	Level of Agreement
		1	2	3	4	5	6			
2.	I see problems as opportunities.	0 (0)	0 (0)	2 (1.0)	25 (12.5)	87 (43.5)	86 (43.0)	5.29	0.719	Very High
3.	I value myself.	0 (0)	0 (0)	1 (0.5)	5 (2.5)	49 (24.5)	145 (72.5)	5.69	0.543	Very High
4.	I can make decisions wisely.	0 (0)	0 (0)	1 (0.5)	17 (8.5)	102 (51.0)	80 (40.0)	5.31	0.643	Very High
5.	I am confident in my actions.	0 (0)	0 (0)	1 (0.5)	8 (4.0)	96 (48.0)	95 (47.5)	5.43	0.597	Very High
6.	I can endure failures.	0 (0)	0 (0)	4 (2.0)	32 (16.0)	110 (55.0)	54 (27.0)	5.07	0.712	High
7.	I have a sense of direction.	0 (0)	0 (0)	1 (0.5)	16 (8.0)	103 (51.5)	80 (40.0)	5.31	0.637	Very High
8.	I have clear goals in my life.	0 (0)	0 (0)	0 (0)	6 (3.0)	72 (36.0)	122 (61.0)	5.58	0.552	Very High
9.	I can manage difficult situations.	0 (0)	0 (0)	1 (0.5)	20 (10.0)	104 (52.0)	75 (37.5)	5.27	0.653	Very High
10.	I can make decisions effectively in challenging situations.	0 (0)	1 (0.5)	1 (0.5)	26 (13.0)	107 (53.5)	65 (32.5)	5.17	0.703	Very High
11.	I can see multiple points of view in challenging situations.	0 (0)	0 (0)	1 (0.5)	20 (10.0)	108 (54.0)	71 (35.5)	5.25	0.646	Very High
12.	I can tolerate ambiguity.	4 (2.0)	4 (2.0)	1 (0.5)	31 (15.5)	100 (50.0)	60 (30.0)	5.00	0.990	High
13.	I can come out with creative actions.	0 (0)	0 (0)	1 (0.5)	42 (21.0)	112 (56.0)	45 (22.5)	5.01	0.676	High
14.	I can come out with effective solutions.	0 (0)	0 (0)	1 (0.5)	21 (10.5)	124 (62.0)	54 (27.0)	5.16	0.611	High

No.	Statements	n (%)						Mean	SD	Level of Agreement
		1	2	3	4	5	6			
15.	I can rely on other people in difficult times.	2 (1.0)	3 (1.5)	17 (8.5)	49 (24.5)	100 (50.0)	29 (14.5)	4.65	0.951	High
16.	Other people can rely on me in difficult times.	0 (0)	0 (0)	3 (1.5)	27 (13.5)	101 (50.5)	69 (34.5)	5.18	0.714	Very High
17.	I can multitask.	0 (0)	0 (0)	1 (0.5)	23 (11.5)	96 (48.0)	80 (40.0)	5.28	0.679	Very High
18.	I can restructure chaotic situations.	0 (0)	0 (0)	4 (2.0)	39 (19.5)	110 (55.0)	47 (23.5)	5.00	0.716	High
19.	I can plan steps to move forward in ambiguous situations.	1 (0.5)	0 (0)	2 (1.0)	28 (14.0)	120 (60.0)	49 (24.5)	5.07	0.709	High
20.	I dare to take risks when I believe there will be positive outcomes.	0 (0)	1 (0.5)	1 (0.5)	17 (8.5)	100 (50.0)	81 (40.5)	5.30	0.686	Very High
21.	I seek challenges rather than avoid them.	0 (0)	0 (0)	2 (1.0)	33 (16.5)	102 (51.0)	63 (31.5)	5.13	0.711	High

Based on Table 7, most of the respondents agree and strongly agree on all items. The item with the highest mean (5.69) is Item 3 (I value myself) and the lowest mean (4.65) is Item 15 (I can rely on other people in difficult times). Item 15 also has a high value of standard deviation (0.951) representing a high dispersion of respondents' agreement.

Based on Table 7, all items were ranked very high based on the weighted average mean range except for eight (8) items. The eight (8) items that were found to have a high degree of the agreement were Item 6 (I can endure failures), Item 12 (I can tolerate ambiguity), Item 13 (I can come out with creative actions), Item 14 (I can come out with effective solutions), Item 15 (I can rely on other people in difficult times), Item 18 (I can restructure chaotic situations), Item 19 (I can plan steps to move forward in ambiguous situations), and Item 21 (I seek challenges rather than avoid them).

Difference in Staff Resilience Level

The one-way analysis of variance (ANOVA) was chosen to determine whether there were any statistically significant differences between the means of three or more independent groups

of samples (Jackson, 2015). The assumptions that the data must meet for a valid result of one-way ANOVA; (i) data is continuous, (ii) data is normally distributed, (iii) random sampling, (iv) variance equality or homogeneity of variance (Strunk & Mwavita, 2021; Jackson, 2015). Assumption (i) was fulfilled since the data was collected using the Likert scale. Assumption (iii) was also fulfilled as samples were randomly selected. Assumptions (ii) and (iv) are explained next.

Normality Test

For assumption (ii), the normally distributed scores for the mean of all domains of resilience were investigated using mean Q-Q plots. Figures 6 - 13 show the Q-Q plots for the mean of all domains of resilience. The data points are close to the diagonal line indicating the normally distributed data.

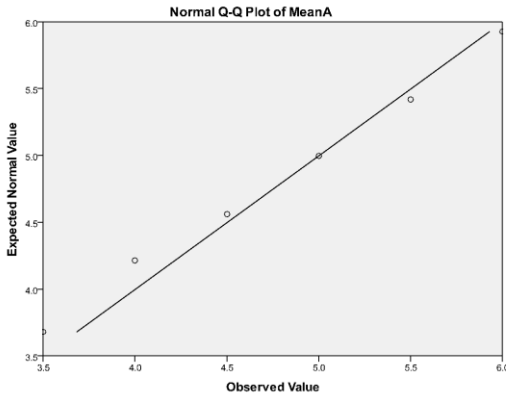

Figure 6. Q-Q Plots of Mean A, Positive (World).

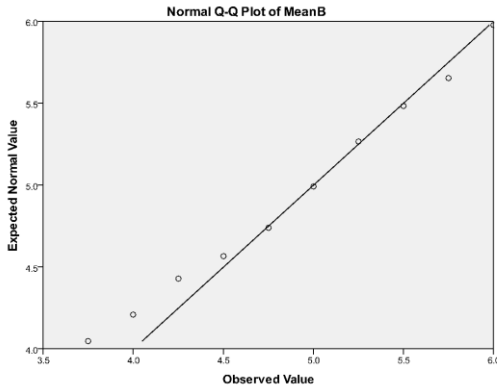

Figure 7. Q-Q Plots of Mean B, Positive (Yourself).

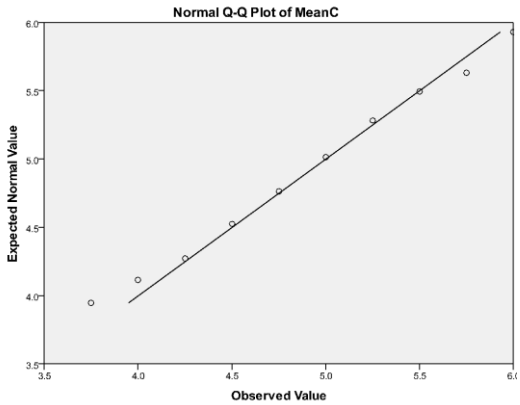

Figure 8. Q-Q Plots of Mean C, Focused.

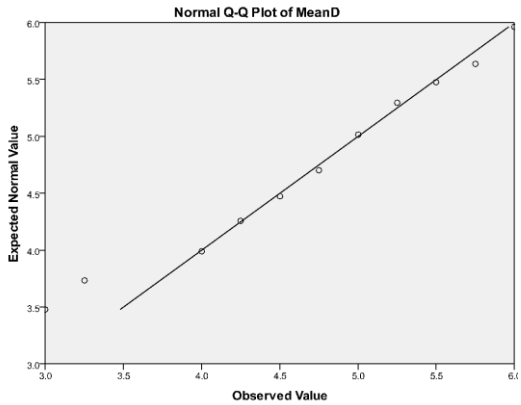

Figure 9. Q-Q Plots of Mean D, Flexible (Thoughts).

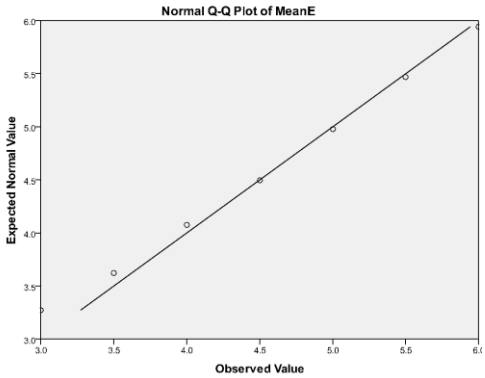

Figure 10. Q-Q Plots of Mean E, Flexible (Social).

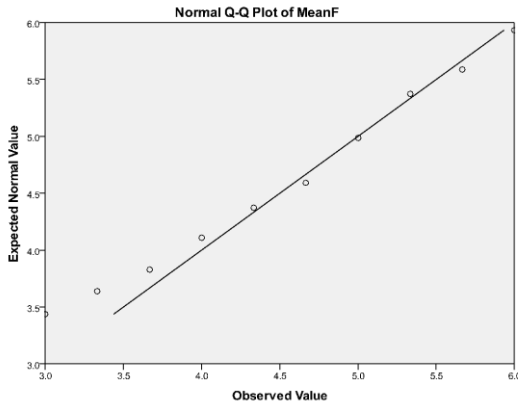

Figure 11. Q-Q Plots of Mean F, Organized.

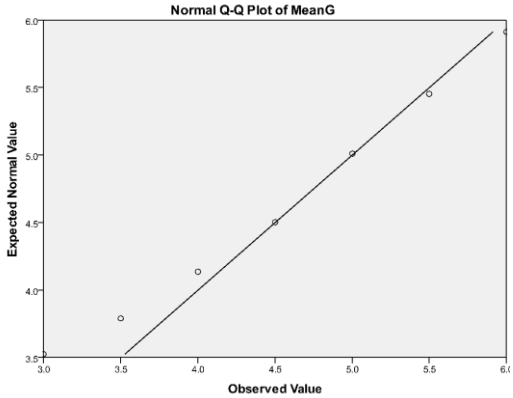

Figure 12. Q-Q Plots of Mean G, Proactive.

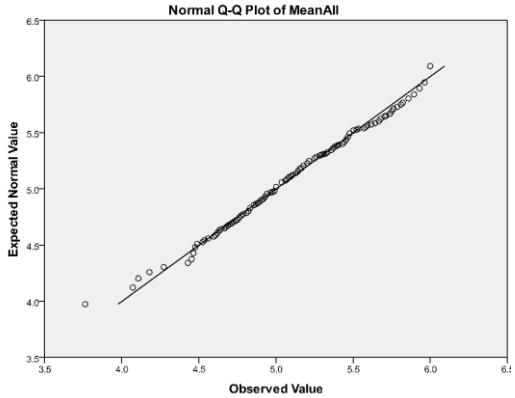

Figure 13. Q-Q Plots of Grand Mean.

Homogeneity of Variances

The homogeneity of variances assumptions was evaluated using Levene's test with the post-hoc test to determine the significant differences.

One-Way Analysis of Variance (ANOVA)

The one-way analysis of variance (ANOVA) was performed toward the grand mean of the resilience level of the respondents in relation to their location, age, designation, years of service in the organization, and retirement age. Based on the results, it was found that there is no significant difference in resilience level in relation to location, age, designation, and years of service in the training institution. However, it was found that there is a significant difference in resilience level in relation to their retirement age.

Table 8
Test of homogeneity of variances.

Levene Statistic	df1	df2	Sig.
.125a	2	196	.882

a. Groups with only one case are ignored in computing the test of homogeneity of variance for the Grand Mean

Table 8 shows Levene's test or the test of homogeneity of variances for resilience level. Levene's statistics showed that the homogeneity test was not significant ($p > 0.05$), thus, the variance for the population of each group was estimated to be the same. The results of Levene's test showed that there was no difference in variance because the value of $F = 0.125$ was statistically insignificant ($p > 0.05$), which implies the null hypothesis failed to be rejected or the variance was the same. In other words, each category in retirement age has the same variant of resilience level.

Table 9
One-way ANOVA (resilience level - retirement age)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.235	2	.618	3.249	0.41
Within Groups	37.257	196	.190		
Total	38.492	198			

Referring to Table 9, the significance level for one-way ANOVA was determined by referring to the probability value F. The table below shows that $F (2, p = 0.041) = 3.249$, $p < 0.05$, then the null hypothesis is rejected, and an alternative hypothesis is accepted where the resilience level is different for the retirement age of lecturers. In other words, there is a significant difference in resilience levels based on the retirement age of lecturers. Table 8 presented Tukey's honestly significant difference (HSD) post hoc test to determine which group of samples differs significantly from each other (Jackson, 2015).

Table 10
Tukey's HSD post hoc test

Retirement Age (I)	Retirement Age (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
60 years old	58 years old	.11423	.09276	.436	-.1048	.3333
	56 years old	.22183*	.09276	.046	.0028	.4409
58 years old	60 years old	.11423	.09276	.436	-.3333	.1048
	56 years old	.10760	.12092	.647	-.1780	.3932
56 years old	60 years old	-.22183*	.09276	.046	-.4409	-.0028
	58 years old	-.10760	.12092	.647	-.3932	.1780

* The mean difference is significant at the 0.05 level

Based on the post-hoc analysis (Table 10), there was a significant difference in resilience level between the lecturers' retirement age of 60 years old and the lecturers' retirement age of 56 years old. Thus, based on this data, the resilience level of lecturers who will retire at 60 years old was higher when compared to lecturers who will retire at 56 years old.

Discussion

The findings of this study are discussed according to the research questions (RQ) and hypothesis of the study.

Staff Resilience Level

RQ1: What are the resilience levels of staff?

It was found that the grand mean of respondents' resilience level was ranked very high (5.19) based on the weighted average mean range. The findings showed that the resilience levels of staff from this training institute were very high. This may be due to this study was conducted after the pandemic Covid-19 lockdown, and everybody was adapting to various changes in the post-pandemic time. This may be one of the impacts on staff resilience level where the drastic changes required in facing the pandemic had pushed the staff to be resilient to sustain the performance of their job. This is in line with a resilience study by Rodriguez-Sanchez, et al. (2020) where they found that resilience enables people to respond to and cope with all changes more efficiently and effectively. Resilience also can assist individuals in maintaining higher levels of performance, improving their sense of well-being, and coping with fluctuating emotions. Resilient people will move through the transition faster and more positively. They may adjust to the change quickly and with much less turbulence (Hodges, 2017). Individual resilience is also important for organizational success during times of radically changing environmental conditions (Lengnick-Hall et al., 2011).

Moreover, the respondents of this study were all lecturers, and their minimum academic qualification is a master's degree with 25 percent of the population possessing doctoral degrees. This may be another reason for them to have a high level of resilience which is supported by Ang et al. (2018), which stated that having a higher educational qualification also influenced resilience. In addition, white-collar workers were found to steadily rebound faster than blue-collar workers (Cotofan, et al., 2021).

Profile of Staff Resilience Level

RQ2: What is the profile of staff resilience level?

Conner (1993) proposed seven (7) domains of resilience; (i) positive (world), (ii) positive (yourself), (iii) focused, (iv) flexible (thoughts), (v) flexible (social), (vi) organized, and (vii) proactive. In this study, it was found that the domain with the highest mean based on the weighted average mean range among the seven (7) domains proposed by Conner (1993) was positive (yourself).

According to Conner (1993), people who have positive self-esteem regard themselves as valuable and capable. They can act with confidence and accept failure without losing their sense of self-worth. They have an internal locus of control, believing that they could make decisions that will affect their future. Hence, the highest mean for domain positive (yourself) in this study may indicate that the respondents were capable, valued themselves, were confident, can accept failure, can make decisions, and were able to control themselves. A flexible thinking pattern also is important when it comes to resilience where those with a flexible thinking pattern are better equipped to bounce back from loss or disappointment (Sagone & De Caroli, 2014).

The domain with the lowest mean (4.91) but still with a high level of agreement based on the weighted average mean range is flexible (social). Conner (1993) believes flexible (social) individuals can rely on others for assistance and they have stronger social bonds. They recognize the interdependence with others on which they can rely in difficult times. The lowest mean indicated that lecturers of this institution lack dependency on others to assist them. This may be due to the pandemic Covid-19 social restrictions. However, the results showed that respondents were able to solve concrete problems in their ways, contrasting the rigidity of the system, adopting the task-oriented strategy, and maximizing the change.

Although this domain had a high level of agreement based on the weighted average mean range, this domain may be the priority that needs to be improved to increase the lecturers' resilience level as well as to suit the new norms post-pandemic time. Several factors can be considered in promoting this domain as suggested by Alizadeh and Sharifi (2022) and supported by Fernández-Prados, et al. (2021); (i) participative and supportive governance of leaders, (ii) resource accessibility, and (iii) staff participation and lawfulness.

Difference in Staff Resilience Level in Relation to Their Demographic Background

RQ3: What are the differences in staff resilience levels in relation to their demographic backgrounds?

Based on the results, it was found that there was no significant difference in resilience level in relation to lecturers' location, age, designation, and years of service in the training

institution. However, it was found that there was a significant difference in resilience level in relation to their retirement age.

There were four (4) hypotheses of this study:

i. There is no significant difference in staff resilience level in relation to their length of service.
ii. There is no significant difference in staff resilience level in relation to their age.
iii. There is no significant difference in staff resilience level in relation to their grades.
iv. There is no significant difference in staff resilience level in relation to their retirement age.

Therefore, based on the results the null hypotheses (i), (ii), and (iii) failed to be rejected. There were no significant differences in staff resilience in relation to lecturers' length of service, age, and grades.

Hypothesis (iv) was rejected since there was significant a significant difference in resilience level between lecturers' retirement age of 60 years old and lecturers' retirement age of 56 years old. Thus, based on this data, the resilience level of lecturers who will retire at 60 years old was higher when compared to lecturers who will retire at 56 years old, giving the impression of the reason those lecturers chose to retire earlier. Sull, et al (2015) have shown that resilience increases with age, and job banding, the average resilience scores were moderate, suggesting that individuals at this level may possess some of the characteristics of resilience but these needs strengthening. Similarly, Ang et al (2018) found similar resilience results with working experience and age associated with higher resilience. Purvis et al (2019) also examined burnout and resilience in neurosciences critical care unit staff and found similar results.

The discussion on the findings of this study contributed as an added value to previous research on resilience. Previous studies had shown that resilient individuals were better at coping with difficulties, adopting the hardiness of traumatic experiences, and using problem-solving strategies. Thus, the organization could utilize the results of this study for future planning.

Conclusions and Recommendations

The covid-19 pandemic managed to show how uncertainties can cause challenges to various aspects of life. As proven by previous studies, those who can cope with these challenges can be considered to have a high level of resilience. This study also managed to disclose that the lecturers from this training institute have a high level of resilience. This could be stemmed from the existing working culture within the training institution itself whereby it has become a norm for the lecturers to be agile, dynamic, and flexible in the ever-changing education system. The results showed that the lecturers' resilience level was on par with what the institution required. However, the resilience level needs to be steadily improved for future endeavors due to unforeseen uncertainties. Therefore, this study may function as leverage for the top management to take necessary actions to further strengthen the resilience level among the lecturers. The planning should support the ability of the lecturers to adapt innovatively and creatively as well as overcome the challenge of improving existing knowledge while being able to generate new knowledge. The top management also needs to

reflect on the finding of this study relating to the lower level of resilience for those who will retire at 56 years old. This group of lecturers might acquire extra help and support from the management to further strengthen their resilience level.

Consequently, this study manages to provide numerous opportunities for further research such as follows

i. this study can be conducted among different populations, supporting staff of the same institutions or staff from other organizations;
ii. a longitudinal study to be conducted for comparison of results between the different times of the study;
iii. a more comprehensive or in-depth study exploring the situation and actions to be taken for the professional development of the staff; and
iv. include previous working experience (number of previous jobs/positions/organizations) and its relation to resilience level.

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APPENDICES
APPENDIX A
RESEARCH INSTRUMENT

The Resilience Level of Lecturers from a Training Institute in Malaysia

Assalamualaikum and Salam sejahtera.

The Staff Development Department, Centre of Policy, and Innovation Management (Pusat Pengurusan Dasar dan Inovasi) is currently researching "The Resilience Level of Lecturers from a Training Institute in Malaysia". We would be most grateful if you would contribute by completing this questionnaire. Your response will be kept private and confidential.

Section A: Demographic
This section contains basic demographic-related questions. Please fill in your answer in the blank space provided or select the option that suits you the most. Thank you in advance for your time and efforts. Your input will be of enormous value to this research.

Gender

☐	Male
☐	Female

Year of first posting: _____

Year joined IAB: _____

Grade

☐	DG54 and above
☐	DG52
☐	DG48
☐	DG44
☐	DG41

Designation

☐	Management (Ketua Pusat and above)
☐	Head of Department (Ketua Jabatan)
☐	Senior Lecturer
☐	Others

Age

☐	56 years old and above
☐	51 – 55 years old
☐	46 – 50 years old
☐	41-45 years old
☐	40 years old and below

Age of retirement

	60 years old
	58 years old
	56 years old
	55 years old
	Others

Section B

Instructions:

The following items describe statements about resilience. Please indicate your agreement or disagreement with the following statements by choosing your response using this scale:

6 – Strongly Agree
5 – Agree
4 – Slightly Agree
3 – Slightly Disagree
2 – Disagree
1 – Strongly Disagree

No.	**Statements**	**Response**					
		1	2	3	4	5	6
8.	I see complex environments as a challenge.						
9.	I see problems as opportunities.						
10.	I value myself.						
11.	I can make decisions wisely.						
12.	I am confident in my actions.						
13.	I can endure failures.						
14.	I have a sense of direction.						
15.	I have clear goals in my life.						
16.	I can manage difficult situations.						
17.	I can make decisions effectively in challenging situations.						
18.	I can see multiple points of view in challenging situations.						

No.	Statements	Response					
		1	2	3	4	5	6
19.	I can tolerate ambiguity.						
20.	I can come out with creative actions.						
21.	I can come out with effective solutions.						
22.	I can rely on other people in difficult times.						
23.	Other people can rely on me in difficult times.						
24.	I can multitask.						
25.	I can restructure chaotic situations.						
26.	I can plan steps to move forward in ambiguous situations.						
27.	I dare to take risks when I believe there will be positive outcomes.						
28.	I seek challenges rather than avoid them.						

Kindly share your experience in facing the challenges since the pandemic Covid-19.

_____

_____

APPENDIX B
APPROVAL LETTER (JKTPP)