The Impact of Formal Training Workshops on Reducing Anxiety in Teachers

¹ N. Ashokkumar, ² D. Neelamegam, ³A. Kavitha, ⁴ M. Bharathi

Abstract: The stressors in the teaching profession are severely high that cause extreme anxiety among teachers. The study aims to explore the effect of formal training workshops on decreasing anxiety in teachers. Conducting formal workshops for training is beneficial for the personal and professional growth of every teaching individual. Guidelines with directives has impacts on the governmental higher education and it is developed by the following which are available resources, the existing modern pedagogical research, institutional learning and policy of teaching. The research selected a primary quantitative methodology to carry out the online survey. The huge portion population of teachers was represented through this research study. In this regard, the survey responses from 95 samples were collected via conducting an online survey. The formal workshop cannot reduce the severe amount of anxiety among teachers, the school authorities need to intervene and support the teachers

N. Ashokkumar

Department of Electronics and Communication Engineering, Mohan Babu University, Tirupati-517102 Andra Pradesh. ashoknoc@gmail.com,

to help with the stressors. Apart from conducting workshops, the authorities must conduct meditation camps for the teachers to improve their physical and mental health. Teachers must focus on their mental health to reduce anxieties and maintain a balance between professional and personal life.

Keywords: Formal training workshops, anxiety, teachers.

1. Introduction

It is to state that the training workshops for teachers equip them with the required skills and knowledge. Regardless of their age and level of experience, every teacher needs to go through constant training and development to grow personally as well as professionally (Toto & Limone, 2021). The education field is evolving rapidly due to the constant introduction of advanced technologies, formal ICTrelated and other training would be beneficial for teachers to reduce their job-related stress of getting behind others. It is crucial and pertinent to address the issue of teachers experiencing anxiety as a result of heavy workloads. Investigating strategies to assist educators in maintaining their well-being is essential. With the aid of this study, researchers are capable to explore the effect of formal training to reduce the anxiety in the teachers.



^{1,2,3,4} Department of Electronics and Communication Engineering,

^{1,4} Mohan Babu University, Tirupati-517102 Andra Pradesh.

² Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Chennai 600 062.

³M.Kumarasamy College of Engineering, Karur- 639113. Tamil Nadu.

¹ashoknoc@gmail.com,

²drdneelamegam@veltech.edu.in,

³kavivenkat99@gmail.com,

⁴ bharathi891@gmail.com

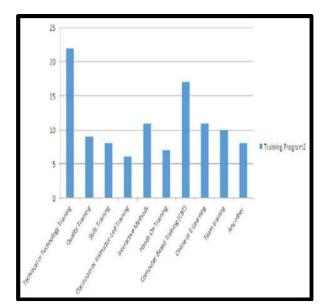


Fig. 1: The impact of staff training and development on the productivity of teachers (Source: Khan & Abdullah, 2019)

From the above-given diagrammatic representation 1, it has been identified that the training and development provided to the teachers can positively impact their productivity (Khan & Abdullah, 2019).

Technical training and computer-based training (CBT) have the most impact on the productivity of teachers. Boosting productivity and prioritizing the tasks and assignments associated with teaching can lessen anxiety. While setting the day's plan or planning for the accomplishments, the teachers can be capable of sorting and finishing their priority tasks first (Szelei, Tinoca& Pinho, 2020). This would provide them with a sense of relief and reduce their job-related stress and anxiety. The purpose of the study is to identify the impact of formal training to develop the teacher's efficiency. Therefore, impact of formal training to eliminate the anxiety of the teachers also discussed within this study. Therefore, staff training is an essential factor which helps to improve the teacher's eligibility. Moreover, development of the technology also helps to develop the efficiency of the teachers. Students nowadays don't react well to traditional teaching approaches. Additionally, the development of technology has had an impact on their lives. For this reason, the education sector—and particularly teachers—must offer guidance in a way that will benefit students. As a result, instructors can acquire current, rapidly changing pedagogy through workshops and training programmes. In essence, this would assist them in feeling less anxious.

1.Aim: The study aims to explore the effect of formal training workshops on decreasing anxiety in teachers.

2. Research Objectives

RO 1: To explore the formal training workshops on reducing anxiety in teachers

RO 2: To analyze the impact of formal training workshops on decreasing anxiety in teachers

RO 3: To identify the challenges of formal training workshops in lessening the anxiety in teachers

RO 4: To evaluate the solutions to the identified challenges

3. Research Questions

RQ 1: What are formal training workshops on reducing anxiety in teachers?

RQ 2: What is the impact of providing formal training workshops on reducing teachers' anxiety?

RQ 3: What are the challenges of formal training workshops in reducing the 4 anxiety of teachers?

RQ 4: What are the solutions to the potential challenges?

2. Literature Review

A. Effects of Formal Training Workshops on Reducing The Anxiety of Teachers

The teacher training workshops refer to the program that provides teachers with techniques and modern strategies of pedagogy. As opined by (Novianti&Nurlaelawati, 2019), the concerned workshops are focused on helping teachers to connect with, handle, and guide students in a better way. It has been seen that all these workshops should be provided to teachers in a regular manner for training and development purposes.

In the above-given diagrammatic representation Fig 2, the curriculum of teacher's workshops is provided (Issuu, 2023). Guidelines and directives of the governmental higher education follow it and it is developed following the available resources, the



Fig. 2 : Curriculum of teacher training and development (Source: Issuu, 2023)

existing modern pedagogical research, institutional learning and policy of teaching, and so on. As mentioned by Pressley, Ha & Learn, (2021), this is beneficial for teachers as being the guide of the students they should know the proper way of teaching. However, Fernández-Batanero et al. (2021) contradicted that Today's students do not respond well to the traditional methods of teaching. In addition to this, technological advancement has influenced their lives as well, therefore, the education sector especially the teachers must provide guidance in a way that would be helpful for students.

Therefore, the teachers through the workshop and training programs can learn the modern constantly evolving pedagogy. This would essentially help them to reduce their anxieties. According to the statistics, 61% of educators identified their job as always or often stressful. Especially in comparison to other professions, teaching is acknowledged as a highly stressful job, as the job is demanding (Talidong&Toquero, 2020). Managing a vast number of students every day who are different from each other, teaching them, assessing their values, taking examinations, and so on along with specific other administrative works the teachers require to fulfill, would be stressful for the teachers. All these are enough to increase their stress. In this context, providing them with proper training and development would help them in better student management along with better relationships that can be developed with the parents of the students (Wang et al. 2021). In

addition, professional growth that is enabled through the workshops helps to affect thousands indirectly. This would give the teachers a sense of achievement and help to reduce anxiety. The collected data and analysis helps to understand that anxiety of teachers can be controlled through the use of meditational camp, guidance of professionals and maintaining regular activities. The coefficient value of analysis is more than 0.5 and it denotes that the dependent variable of this study is dependent on the independent variables.

B. Disadvantages Of Formal Training Workshops And Solutions To It

As the teachers are always busy during their shifts teaching the students or assessing and making curriculum for them, they would not have time for attending the workshops. Therefore, these training programs most of the time occur during the free time of teachers that encroaches on teachers' personal time. As mentioned by Theelen et al. (2020), this would not be helpful for motivation or reducing anxieties, this would potentially lead teachers to burnout. However, Martínez-Monteagudo et al. (2019) suggested that the workshops should occur during work hours in a rotational manner so that while groups of teachers are getting trained others are in the classroom teaching students. This would help them to relax and attend the workshops in a productive manner, which would help reduce their anxiety.

3. Limitations of the Research

Numerous workshops promise short-term respite but do not guarantee sustained resilience. According to, Monteagudo et al. (2019), teachers may have different needs, and formal workshops frequently take a generic approach that does not address them. The overall efficacy of these interventions may be lowered in the absence of customized strategies. It can be seen that workshops might concentrate more on the outward manifestations of anxiety than on the underlying causes.

Understanding the individual needs and health conditions to respond to any initiatives can help in making personalized services for all.

A. Maslow's Theory of Motivation

According to Maslow's proposed theory, motivation can be achieved as the result of a person's



Fig. 3 : Maslow's Hierarchy of Needs (Source: Influenced by Papaleontiou–Louca, Esmailnia&Thoma, 2022)

attempt at meeting five basic needs. These needs are physiological, safety, social, esteem, and self-actualization (Trivedi & Mehta, 2019). Following the theory, it can be stated that all these needs create internal pressure among the teachers, which can influence the behavior of the person. If the organizations focus on fulfilling the needs of the teachers through creating the formal training process accordingly it would lessen their anxieties. The jobrelated stress of them can be reduced at the latest to some extent through the workshop process.

As given in the above-presented diagrammatic representation 3, the five levels of human needs are presented in terms of the concerned theory of motivation (Papaleontiou-Louca, Esmailnia&Thoma, 2022). The teachers must focus on their internal growth and progress along with professional growth through the completion of formal workshops.

4. Methodology

Due to obtain a wide variety of viewpoints from a large number of teachers, a quantitative methodology—more precisely, an online survey—is suitable. An online survey has been followed in this concerned research under the primary quantitative research methodology context. Primary quantitative research was beneficial for this research to measure the data accurately maintaining relevance (Mohajan,

2020). The accuracy of the research can only be identified through the primary research process where the researcher collected the data from the teachers directly to identify whether their anxiety was reduced due to the introduction of the formal workshops. Due to the statistics of the quantifiable survey data, the concerned method of research offers a wide scope of data collection (Stern et al. 2021). The large population of teachers was possibly represented through this research method. In this regard, the input from 105 samples has been obtained via conducting an online survey. The close-ended 13 questions of the survey contained 3 demographic questions and 10 descriptive questions. This survey data was processed through SPSS software following the regression linear method. The use of the primary data collection method in the study helps to target a specific audience to consider a proper result and outcomes related to the importance of formal training in the workshop for the decrement of the level of anxiety in the teachers. With the help of this data collection method directs you to people related to the educational sector can be collected which enhances the effectiveness of the outcome of the study. From the recreational analysis and the coefficient analysis that are discussed in the study, the relationship between the dependent and dependent variables of the study can be identified.

A. Finding and analysis

DV: Reducing Anxiety in Teachers

IV1: Formal Training Workshops

IV2: Conducting Meditational Camp

IV3: Providing Professional Help

1. Hypothesis 1

H1: Formal training workshops can reduce anxiety in teachers

H0: Formal training workshops can decrease anxiety in teachers

2. Hypothesis 2

H1: Conducting a meditational camp for teachers can help them to reduce the anxiety



H0: Conducting a meditational camp for teachers to help their anxiety to keep in check

3. Hypothesis 3

H1: Providing professional guidance to teachers help them to reduce anxiety

H0: Providing professional help to teachers enables them to reduce anxiety

4. Demographic data

a.Age

Table 1 : Age Analysis (source: Ibm Spss)

	What is	your age?		
	Frequency	Percent	Valid percent	Cumulative percent
Valid 18 to 28	21	20.0	20.0	20.0
29 to 38	28	26.7	26.7	46.7
39 to 58	28	26.7	26.7	73.3
Above 58	28	26.7	26.7	100.0
Toatl	105	100.0	100.0	

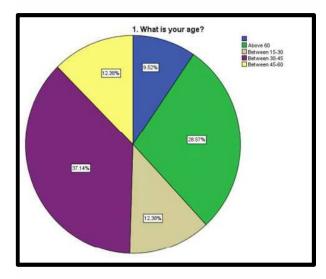


Fig. 4 : Age analysis (Source: IBM SPSS)

The above graphical representation and table represent the age-related data of the respondents. The age group of the respondents has been divided into 4 distinctive age groups to represent the percentage of people who have participated from different age groups. Mostly all age groups have the same

percentage of involvedness such as the age groups of 29 to 38, 39 to 58 and above 58 have the same percentage of 26.7%. This means all the people were equally interested in the survey.

b.Gender

Table 2: Gender Analysis (Source: Ibm Spss)

		What is	your gende	r	
		Frequ ency	Percent	Valid perce	Cumul ative
				nt	percent
Valid	Female	42	40.0	40.0	40.0
	Male	63	60.0	60.0	100.0
	Total	105	100.0	100.0	

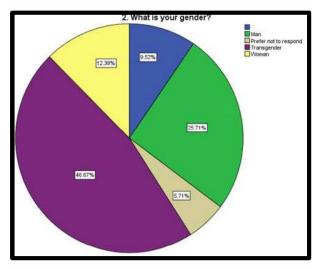


Fig. 5. Gender Analysis (source: Ibm Spss)

The above figure and table represent the gender data of the respondents. Gender data is important to know about the participation of males and females in the survey. There were 60% male and 40% female respondents and this proves that males and females were more over equally interested in the survey work. People from all genders participated in the study and the parameter refers to the impact of the level of anxiety in their educational career.

c. Monthly income

The income analysis in Figure 6 reflected that 29.52% of respondents earned above 60,000. However, 35.24% of the respondents earned between 45,000 and 60,000, 19.05% of respondents earned



Table 3 : Analysis of Monthly Income (Source: Spss)

1. Wi	nat is your m	onthly inc	come?	
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10	9.5	9.5	9.5
Above 60,000	31	29.5	29.5	39.0
Between 10000-25000	7	6.7	6.7	45.7
Between 25000-45000	20	19.0	19.0	64.8
Between 45000-60000	37	35.2	35.2	100.0
Total	105	100.0	100.0	

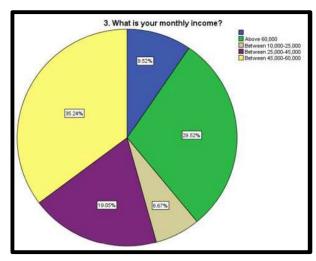


Fig. 6 : Analysis of Income (Source: Spss)

between 25,000 and 45,000. The remaining 6.67% of the respondents earned between 10,000 and 25,000. The selection of the monthly income section helps to investigate the financial capacity to precede a proper training for the person for the educational growth.

d. Working experiences

The above figure represents the work experience data of the respondents which is important for understanding their capabilities and knowledge qualities. Most of the respondents have good working experience such as 46.7% of respondents have 1 to 5 years of working experience. On the other hand, 42% of respondents have more than 5 years of experience. This denotes that the quality of survey answers is probably good and acceptable for analyzing the output.

Table 4:
Working Experiences
(Source: Ibm Spss)

		Freque ncy	Percent	Valid percent	Cumulative percent
Valid	1 yearto 5 Years	49	46.7	46.7	46.7
	Less than 1 Year	14	13.3	13.3	60.0
	More than 5 Years	42	40.0	40.0	100.0
	Total	105	100.0	100.0	

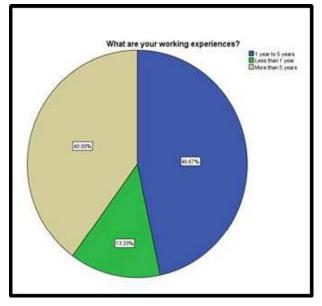


Fig 7 : Working Experiences (Source: Ibm Spss)

5. Descriptive analysis

The above-mentioned Table 5 represents the descriptive analysis table of this study. Descriptive analysis helps to know about the quality of data that has been used for analyzing the results. This table includes details of all four variables of this study. Four variables include one dependent variable and three distinctive independent variables. This table includes the value of the mean, standard deviation, and variance values which are important to recognize the quality of data. On the other hand, the possibility of positive answers increases with increasing the mean value such as the main value of IV2 is 12.86 which are highest in comparison to other variables. Thus, descriptive analysis is important to analyse the quality of data that has been gathered.

	N	range	Minimum	maximum	mean	Std. Deviation	skewness		kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std.error	Statistic	Std.error
DV	105	8.00	2.00	10.00	7.7333	2.36264	-1.141	236	194	.467
IV1	105	8.00	2.00	10.00	8.2000	2.6532	-1.405	236	500	.467
IV2	105	8.00	9.00	15.00	12.8667	3.02256	-1.510	236	880	.467
IV3	105	8.00	7.00	15.00	12.8000	3.05211	-1.052	236	586	.467
Valid N (listwise)	105									

Table 5 : Descriptive Analysis of The Variables

6. Hypothesis 1

Table 6: Hypothesis 1 (Source: Spss)

Model Summary											
Model	R	R	Adjusted	Std.Error		Change S	Statisti	cs			
		Square	R square	of the	R Square	F	Df	Df	Sig . F	Durbin-	
				Estimate	change	Change	1	2	change	Watson	
1	0.65a	.004	006	1.95682	.004	.395	1	93	.531	1.436	

a: Predictors Predictors: (Constant),Formal_Training_Workshops

ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	1.512	1	1.512	.395	.531b
Residual	356.109	93	3.829		
Total	357.621	94			

a.Dependent Variable: Reducing_Anxiety_in_Teachers b.Predictors: (Constant),Formal_Training_Workshops

In Table 6 the significant value of 0.531 has been quantified in the context of hypothesis 1. The table above displays the values of R, R-square, and Adjusted R-square, which are.65, .04, and.006, respectively. In this case, the correlation that developed between the IV1 and DV was defined by the R-Square value. From the above table of descriptive analysis, it can be clearly said that the amount of some of the squares of regression analysis is 1.512. The positive regression analysis indicates that the impact of training workshops is very important for the reduction of the level of anxiety

Coefficientsa

Model	Unstar	ndardized cients	standardized coefficients	t	Sig
	В	Std.Error	Beta		
Constant	8.269	1.299		6.368	.000
Formal_Training Workshops	-0.71	.113	-0.065	628	.531

a.Dependent Variable: Reducing_Anxiety_in_Teachers

among teachers in the Educational sector. The R square value illustrates how changing an independent variable in this analysis can affect a dependable variable (Osborne & Waters, 2019). This test's automated negative correlation formation between variables is amply demonstrated by its Durbin-Watson Value of 1.436. Significance value here is .531 which is higher than the standard value of 0.05. This depicting the training and workshop, the IV has the lesser power over reducing the anxiety of the teachers, the DV. According to the respondents though these programs are beneficial for the teachers, however, the stressors for the teachers are too high to be reduced.



b: Dependent Variable: Reducing Anxiety in Teachers

7. Hypothesis 2

Table 7: Hypothesis 2 (Source: Spss)

	Model Summary ^b											
Model R	R	Adjusted	Std. Error	Change Statistics								
Iviodei		Square	R square	of the Estimate	R Square Change	F Change	Df 1	Df 2	Sig . F Change	Durbin- Watson		
1	0.538 ^a	.289	281	1.65344	.289	37.811	1	93	.000	1.681		

a: Predictors Predictors: (Constant),Formal_Training_Workshops

b: Dependent Variable: Reducing_Anxiety_in_Teachers

ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	103.371	1	103.371	37.811	.000 в
Residual	254.250	93	2.734		
Total	357.621	94			

c.Dependent Variable: Reducing_Anxiety_in_Teachers d.Predictors: (Constant),Formal_Training_Workshops

Table 7 evidently measured hypotheses 2 to find out the significant value is lesser than the standard value, which showed that conducting a meditation camp would be extremely helpful for the teachers in terms of reducing anxiety. The table above displays the values of R, R-square, and Adjusted R-square, which are.538, .289, and .281, respectively. In this case, a correlation developed between the planning of a meditational camp and the reduced anxiety of teachers, which was defined by the R-Square value. The R square value illustrates how changing an independent variable in this analysis can affect a dependable variable which in this matter is 28.9%.

Coefficientsa

Model	Unstan coeffic	dardized ients	standardized coefficients	t	Sig
	В	Std.Error	Beta		
Constant	-3.436	1.781		-1.930	.057
Formal_Training Workshops	.900	.146	,538	6.149	.000

b.Dependent Variable: Reducing_Anxiety_in_Teachers

This test's automated negative correlation formation between variables is amply demonstrated by its Durbin-Watson Value of 1.681. According to the research of Nurymbetov, Nurlakov&Mukanova, (2022), it is shown that mind-full meditation has the power to reduce anxiety. If teachers follow meditation regularly, it can effectively reduce anxiety, depression, chronic pain, and so on. From the ANOVA table, it can be clearly concluded that the value of the sum of squares for the resistible is 254.250 which is which is a high value that in hands the impact of anxiety levels for the improvement of formal training workshops for the teachers in a sector.

8. Hypothesis 3

Table 8: Hypothesis 3 (source: Spss)

	Model Summaryb											
Model	R	R	Adjusted	Std. Error of	Change St	tatistics						
1,15461	10	Square	R square	the Estimate	R Square	F	Df	Df	Sig . F	Durbin-		
					change	Change	1	2	change	Watson		
1	0.013a	.000	⁻ .011	1.96080	.000	.016	1	93	.899	1.398		

a: Predictors Predictors: (Constant),Formal_Training_Workshops

b: Dependent Variable: Reducing_Anxiety_in_Teachers

ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	.062	1	.062	.016	.899b
Residual	357.559	93	3.845		
Total	357.621	94			

Dependent Variable: Reducing_Anxiety_in_Teachers Predictors: (Constant),Formal_Training_Workshops

Coefficientsa

Model	Unstandardized coefficients		standardized coefficients	t	Sig
	В	Std.Error	Beta		
Constant	7.238	1.783		4.059	.000
Formal_Training Workshops	.028	.220	.013	.127	.899

Dependent Variable: Reducing_Anxiety_in_Teachers

Table 8 reflected hypothesis 3 that providing professional help has lesser power in decreasing the anxiety of teachers. The table above displays the values of R, R-square, and Adjusted R-square, which are .013, .000, and .011, respectively. In this case, a correlation developed between providing professional help and the reduced anxiety of teachers, which was defined by the R-Square value. The R square value illustrates how changing an independent variable in this analysis can affect a dependable variable which in this matter is 0%. This indicates that IV3 are not enough strong to influence the DV of this study. This test's automated negative correlation formation between variables is amply demonstrated by its Durbin-Watson Value of 1.681. It can be seen that there is more evidence opposing the null hypothesis the higher the absolute T value (Malejkaet al. 2021). In table, "t" test value is 4.059 that indicating the strength of hypothesis 3.In this regard, it is the responsibility of the authorities of education to ensure providing professional guidance to each educational institute so that both students and teachers can be benefitted (Sumanasena& Mohamed, 2022). The teachers must be encouraged to seek professional help.

9. pearson Correlation Test

Table 9 : Correlation Test Of The Research (source: Ibm Spss)

	DV	IV1	IV2	IV3
DV person correlation	1	.844**	.626**	.627**
Sig (2-tailed)		.000	.000	.000
N	105	105	105	105
IV1 person correlation	.844	1	758**	.795**
Sig (2-tailed)	.000		.000	.000
N	105	105	105	105
IV2 person correlation	.626	.758	1	.719**
Sig (2-tailed)	.000	.000		.000
N	105	105	105	105
IV3 person correlation	.627**	.795**	1	.719**
Sig (2-tailed)	.000	.000	.000	
N	105	105	105	105

The above table represents correlation analysis to represent the relation of all variables among each other. This value varies from 0 to 1 where the values above 0.5 represent positive relation among the variables. The highest correlation value has been noticed between the dependent variable (DV) and independent variable 1 (IV1) which is 0.844 and this means they are positively correlated with each other. On the other hand, there is no correlation value which is lower than 0.5 and that represents that all values are correlated to each other and interconnected.

5. Analysis And Discussion

It is to state that the sources of teacher stress can be considered within three primary categories, and consist of a variety of degrees among individual teachers all across the globe. (2021), the identified stressors are workload, the behaviour of students, responses and behaviours of the stakeholders who are the administration, parents of the students, and art educational authorities. All of these cause stress, which leads to severe anxiety among the teachers. However, as contradicted by Supriyanto et al. (2020),



in the stressed teacher's context, these are the teachers who reportedly convey quite a bit or a lot of stress in their work. The stressors like the workload are identified to be huge for the job role of a teacher considering planning and preparing the curriculum and teaching methods according to the capabilities of students, assessing their abilities, helping them, taking examinations, setting papers, checking those papers to value them, and so on. All of these took over the personal time of the teachers. Therefore, the imbalance between personal and professional life causes massive stress and anxiety among teachers. On the other hand, dealing with several students of different backgrounds, different characteristics are becoming extreme for teachers sometimes (Othman & Sivasubramaniam, 2019). This would create pressure on the teachers. Therefore, in addition to all of these, arranging the formal training workshop seems to be additional pressure for the teacher according to the findings. This can create extra pressure, which would affect the growth of the individual. However, as the importance of the concerned workshop has been identified to be advantageous for reducing the anxieties of the teacher, hence, the authorities must arrange these programs in accordance with the teachers' availability. This can be conducted online, which would be helpful for the teachers to attend based on their accessibility of time. The regression analysis of the study shows the dependency of anxiety Levels on the quality of training workshops. From the descriptive they the coefficient value of the formal training workshop for the standard dice Coefficient is 8.269 which indicates the height-dependent rate of the anxiety level for the improvement of the training quality for the growth of the educational condition. The second hypothesis table shows the value of the standard Coefficient is 0.53 which shows the low impact of urbanization and culture on the quality of training workshops.

Conclusion

In the end ,it can be concluded that there are many factors cause stress and anxiety among teachers. If the behaviours of the students were to be obnoxious, errant, and so on it would cause extra stress for the teachers to manage and teach them. In addition to this, the pressure from the administration can cause tension among the teachers. It is seen that most parents demand and expect different things from teachers for the benefit of their own children. Considering all of these factors, it can be stated that the authorities should be supportive and helpful. It is necessary for

the educational authorities to look after their teachers' well-being to prevent them from burnout and reduce their anxieties by ensuring their growth through formal training programs, meditation camp, and so on. In conclusion, is also can be said that from the fellow of efficiency for the third hypothesis the standard error of constant formal training WhatsApp is 1.783 which is a positive value and indicates the importance of reduction of anxiety Levels that them better educational perspectives.

References

- Fernández-Batanero, J. M., Román-Graván, P., Reyes-Rebollo, M. M., & Montenegro-Rueda, M. (2021). Impact of educational technology on teacher stress and anxiety: A literature review. International journal of environmental research and public health, 18(2), 548.
- Thiruvengadam, S. J., Baskar, S., Saravana Perumaal, S., Jeyamala, C., Anitha, D., & Rajan Prakash, R. (2021). Analysis of in-house training workshops for enhancing faculty competence in CDIO implementation—A case study. Journal of Engineering Education Transformations, 34(Special Issue), 615–619.
- Martínez-Monteagudo, M. C., Inglés, C. J., Granados, L., Aparisi, D., & García-Fernández, J. M. (2019). Trait emotional intelligence profiles, burnout, anxiety, depression, and stress in secondary education teachers. Personality and Individual Differences, 142, 53-61.
- Ana, A., Kustiawan, I., Ahman, E., Zakaria, S., Muktiarni, M., Dwiyanti, V., & Khoerunnisa, I. (2022). Defining Vocational Teacher Competencies in Industry 4.0 from the Perspective of Teachers and Lecturers. Journal of Engineering Education Transformations, 35(Special Issue 2), 39–46..
- Novianti, N., &Nurlaelawati, I. (2019). Pedagogical competence development of university teachers with non-education background: The case of a large university of education in Indonesia. International Journal of Education, 11(2), 169-177.
- Bhogayata, A., & Jadeja, R. B. (2022). Influence of Learners' Diversity on the Pedagogical Practices in Engineering Education: A Meta-

- Analysis of Teachers' Reflections. Journal of Engineering Education Transformations, 36(Special issue 2), 566–574.
- Osborne, J. W., & Waters, E. (2019). Four assumptions of multiple regression that researchers should always test. Practical assessment, research, and evaluation, 8(1), 2.
- Deshmukh, R., Irfan, M. M., Shiva, C. K., & Balakrishna, K. (2021). Unlocking the online education space during the lockdown: Adaptation and synergies of teachers and students. Journal of Engineering Education Transformations, 34(Special Issue), 206–210.
- Papaleontiou–Louca, E., Esmailnia, S., &Thoma, N. (2022). A critical review of Maslow's theory of spirituality. Journal of Spirituality in Mental Health, 24(4), 327-343.
- Malejka, S., Vadillo, M. A., Dienes, Z., & Shanks, D. R. (2021). Correlation analysis to investigate unconscious mental processes: A critical appraisal and mini-tutorial. Cognition, 212, 104667.
- Pressley, T., Ha, C., & Learn, E. (2021). Teacher stress and anxiety during COVID-19: An empirical study. School psychology, 36(5), 367.
- Santamaría, M. D., Mondragon, N. I., Santxo, N. B., & Ozamiz-Etxebarria, N. (2021). Teacher stress, anxiety and depression at the beginning of the academic year during the COVID-19 pandemic. Global Mental Health, 8, e14.
- Stern, C., Lizarondo, L., Carrier, J., Godfrey, C., Rieger, K., Salmond, S., ... & Loveday, H. (2021). Methodological guidance for the conduct of mixed methods systematic reviews. JBI Evidence Implementation, 19(2), 120-129.
- Kumar, S. P. (2022). Influence of University teachers' job satisfaction on subjective well-being and

- job performance. Journal of Engineering Education Transformations, 35(Special Issue 1), 160–167.
- Supriyanto, A., Hartini, S., Irdasari, W. N., Miftahul, A., Oktapiana, S., &Mumpuni, S. D. (2020). Teacher professional quality: Counselling services with technology in Pandemic Covid-19. Counsellia: JurnalBimbingan dan Konseling, 10(2), 176-189.
- Szelei, N., Tinoca, L., & Pinho, A. S. (2020). Professional development for cultural diversity: the challenges of teacher learning in context. Professional development in education, 46(5), 780-796.
- Talidong, K. J. B., &Toquero, C. M. D. (2020). Philippine teachers' practices to deal with anxiety amid COVID-19. Journal of Loss and Trauma, 25(6-7), 573-579.
- Kaur, U., Chutani, N., & Handa, P. (2023). E-learning for Undergraduate Students Amid The Pandemic: Teachers' Perspective. Journal of Engineering Education Transformations, 37(2), 93–105.
- Toto, G. A., & Limone, P. (2021). Motivation, stress and impact of online teaching on Italian teachers during COVID-19. Computers, 10(6), 75.
- Masek, A., Ismail, A., Nurtanto, M., & Hasim, S. (2021). Enhancing professional knowledge and self-concept through self and peer assessment using rubric: A case study for preservices TVET teachers. Journal of Engineering Education Transformations, 35(1), 110–115.
- Wang, Y., Li, Q., Tarimo, C. S., Wu, C., Miao, Y., & Wu, J. (2021). Prevalence and risk factors of worry among teachers during the COVID-19 epidemic in Henan, China: A cross-sectional survey. BMJ open, 11(7), e045386.