

## Conference paper

# School Teachers' Quality of Life: Do ICT Literacy, Psychological Factors, and Working Environment Matter?

Dahlia Kamener<sup>1\*</sup>, Nor Azilah Husin<sup>2</sup>, Nadya Abdullah<sup>3</sup>, Erni Tanius<sup>4</sup>, Nor Effuandy Proften<sup>5</sup>, Baharuddin Ishak<sup>6</sup>

<sup>1</sup>Universitas Bung Hatta, West Sumatera, Indonesia

<sup>2-6</sup>Universiti Selangor, 40000 Shah Alam Selangor, Malaysia

## ORCID

Dahlia Kamener: <https://orcid.org/0000-0002-4669-3506>

Nor Azilah Husin: <https://orcid.org/0000-0002-1513-8550>

Nadya Abdullah: <https://orcid.org/0000-0002-7260-5880>

Erni Tanius: <https://orcid.org/0000-0001-8698-9523>

Nor Effuandy Proften: <https://orcid.org/0000-0003-4378-9577>

Baharuddin Ishak: <https://orcid.org/0000-0001-5332-4250>

## Abstract.

The unprecedented phenomenon of the COVID-19 pandemic has dramatically impacted people's and society's well-being. Secondary school teachers' is no exception. The purpose of the study deems to investigate the factors that affect the quality of life among secondary teachers during the COVID-19 pandemic. The obtained data on ICT literacy, psychology, the working environment, and teachers' quality of life was done through an adapted questionnaire distributed among 122 secondary teachers using google form WhatsApp due to the pandemic period. The Statistical Package for Social Science (SPSS) software is employed to analyse both descriptive analyses of demographic characteristics and inferential statistics to analyse the data. The findings indicate a significant positive correlation between ICT literacy, psychology, and the working environment and secondary teachers' quality of life. However, ICT literacy does not affect the quality of life. This finding would shed light on the knowledge of well-being, and research builds a strong basis and foundation for continued exploration to understand the complexity of this issue.

**Keywords:** pandemic COVID-19, quality of life, school teachers, psychology, working environment

## 1. Introduction

The deadly and contagious Corona Virus, also known as COVID-19, has significantly impacted the global economy. The respiratory disease was detected in Wuhan, China; on 9 January 2020, Chinese health authorities via the World Health Organization (WHO) declared it a novel coronavirus [1]. Social distancing and confinement led to school closures, majorly impacting national dynamics. The COVID-19 pandemic has made it compulsory for students to have virtual classes at total usage for the first time

Corresponding Author: Dahlia Kamener; email: [dahlia.kamener@bunghatta.ac.id](mailto:dahlia.kamener@bunghatta.ac.id)

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in Movement Control Operation (MCO) from 18 March 2020 [2]. It affects the quality of life for people, particularly in the educational environment has no exception to experiencing tectonic change [3]. Chaos and pressure can result from mishaps and the spreading of COVID-19. Students are no longer in physical classes, leading teachers to learn necessary online teaching methodology and create their teaching and learning according to the pandemic context [4]. This anxiety permeates teaching and learning in the education sector.

Quality of life plays a vital role for most people in their daily lives and makes the individual healthy, comfortable, and able to enjoy life calmly. Quality of life, in general, also can be known as the well-being of individuals and society; it outlines the characteristics of life from a positive and negative point of view. Most of us do this daily and can refer to the experience of one's life and living conditions where individuals are. To be an experienced person, a teacher needs to have the vision to shape a student into a future leader with a good identity and morals [5]. As teachers, to make students far-sighted and able to solve all solutions more clearly, accurately, and logically in using high-level thinking skills, teachers need to increase the reading of all materials from various reference sources, especially those that focus on the latest education either theoretically or practically and also enhanced interpersonal skills and hard skills [6]. It would give a teacher more experience in life based on the methods that have been applied to students. A teacher's quality of life needs to be determined by the ability to lead a good life in terms of emotional and physical well-being. Being in a very restful as well as comfortable environment makes teachers feel delighted and more enthusiastic in carrying out responsibilities more transparently and trust in the school. Therefore, teachers feel more satisfied in every work and can produce more educators who are more creative and innovative to stimulate the intellectuals for a new generation to move towards the summit of mountainous thinking [7].

However, due to the COVID-19 pandemic, there are several different quarantine activities such as online classes, tutorials, and so on those have been provided by teachers. This changes how teaching and learning involve teachers face-to-face with students in the classroom. The use of the latest technology can help distance learning and easily interact with each other no matter where the individual is. This also can help teachers facilitate work involving school and students matter and change the way teachers teach more interactively [8].

Finally, the main focus of this study involves the quality of life of secondary school teachers in Malaysia. This matter is fundamental to explain the perception of the quality

of life among secondary school teachers in Malaysia, where there are many things to do as a teacher.

## 2. Literature Review

### 2.1. Quality of life for school teachers

Quality of life can be defined as a person's view and understanding of their position based on the cultural and value system in which they inhabit [9]. However, it is very subjective and ambiguous. Researchers have decided to relate it to the famous Maslow Hierarchy of Needs. A past study found teachers have difficulty managing their work, mainly due to demographic distinctions such as age, because the elders tend to be reluctant to change their lifestyle [10]. Meanwhile, [11] said ICT application, mental health issue, and work-related environment has a connection with the quality of life.

The literature indicated a relationship between quality of life and professional and personal satisfaction [12]. Meanwhile, the study on school personnel indicated that they were satisfied in all the quality of life domains. Males and females were found to have the same level of psychological distress and quality of life. However, single employees have higher levels of depression and stress symptoms compared to married staff [13]. Additionally, teachers have a lower QOL than the general population. The mean scores of teachers were significantly lower than the general population in all dimensions of the QOL except for mental health and emotional limitations [14].

Studies on quality of life, especially among teachers, are important to ensure the performance of the teachers. Furthermore, the COVID-19 pandemic has shifted from a normal lifestyle to a standard of Procedure (SOP) guided lifestyle. The result of behavioral changes in response to this pandemic. Thus, it also affects an individual's quality of life [15]. Therefore, it is important for teachers to adapt well depending on the current trends. Those who have difficulty adapting to specific situations will have a low quality of life [16].

However, the literature indicated a lack of research on quality health in Malaysia. Some studies are already outdated, such as Abd Hamid [17] and Mat Said [18]. Hence, the study on quality of life among teachers is urgently needed. Thus, this study aims to determine whether ICT literacy, psychological factors, and working environment influence teachers' quality of life.

## 2.2. Literacy of ICT

ICT refers to using computers and software to change, store, protect, process, transfer, view, and obtain information regardless of place and time [19]. In the teaching and learning of secondary school education, the use of ICT is done thoughtfully, planned, and appropriately to improve the efficiency of teaching and learning. Due to the current issue of COVID-19, the government has proposed various alternatives, such as conducting online classes to make it easier for teachers to interact with students so that no one will be left behind in learning [20]. A study indicated that teachers' commitment to applying ICT in school is low to medium [21].

Thus, teachers need to adapt to the use of all ICT infrastructure [22]. ICT can improve school facilities' performance, especially at the secondary level. ICT potential triggers transformation in educating students to become more intelligent [23]. Based on this argument, we propose the following hypothesis:

H1: Literacy of ICT affects teachers' quality of life

## 2.3. Psychological factors

Psychological factors such as personality, motivation, social interaction skills, family structure, stress, physical health, self-concept, mental health, and environmental condition have been widely acknowledged as pertinent to any teacher's job performance in secondary school. Besides, teachers are expected to learn modern technologies, keep learning, be smart and use smartphones, go global, go social and build a positive digital footprint. Literature reported that most teachers would suffer due to personal problems. It could be having work pressure on their job and the factors which may cause disturbances in their mindset, emotional stress, and depression. Hence it influenced the quality of life of the teachers [24].

Furthermore, the critical role of psychological factors may lead to the performance of teachers. In Malaysia, a teacher was responsible for instructional activities such as lesson planning, classroom teaching, and grading homework. Additionally, they run co-curricular activities, attend or facilitate professional development activities, and engage parents and the community. Furthermore, they perform administrative duties related to teaching and learning, such as filling out student report cards and tracking student attendance in class [25]. Hence, the teacher suffered psychological distress that influenced their quality of life, such as poor postures, inappropriate workstations, and lifting and carrying heavy objects. A physical activity program is needed to reduce

musculoskeletal pain and improve teachers' mental health and quality of life [26]. Another intervention is improving teachers' professional growth and work performance [27]. Finally, provide feedback and support appropriately and facilitate them to develop themselves [28]. Thus, we design this hypothesis;

H2: Psychological Factors affect teachers' quality of life

## 2.4. Working environment

The work environment is the relationship between employees and their environment [29]. It leads to challenges and complexities in teachers' careers but is unable to adapt to the new changes [30]. The previous study found that the working environment relates to their quality of life. Hence, the policymaker must give serious attention to improving teachers' work conditions and general welfare as it relates to better performance and student outcomes at schools. As well as affects the school's effectiveness because expertise and new ideas are required to nurture the young generation [31]. Thus, we conjecture the following hypothesis:

*H3: Working environment affects teachers' quality of life.*

## 3. Methodology

The data employed is empirical data, with the unit of analysis being an individual teacher who is teaching in a secondary school in Malaysia. The questionnaire is based on & Likert Scale. Each variable consists of 5 items, which are adapted from previous studies: [20]; [25]; [29], and [11]. This study used the deductive method, beginning with the hypothesis and ending with the result either to be supported or not. A quantitative research approach was employed in this study, which is a descriptive and cross-sectional study. This study concentrated on the three key variables central to the teachers' quality of life: ICT literacy, psychological factors, and working environment. Since the MCO is implemented, the questionnaire distribution has been limited to only the online survey via Google form. The secondary school teachers were identified, and the google forms were distributed among them. The data collection took about three months, from May 2021 until the end of July 2021. This approach is the statistical methodology required to analyse the numerical data with the help of applications of SPSS version 23.0. Meanwhile, descriptive statistics, correlation coefficient, and multiple regression are used to answer the objective of the study.

## 4. Result and Discussion

In this study, the respondent was 122 secondary school teachers in Malaysia. Based on Table 1, the males (26.2%) are less than the female respondents (73.8%), reflecting the real gender ratio scenario in education areas. 45.1% of the respondents are 34 years below, followed by 45-55 years (24.6%), above 55 years (15.6%), and lastly, 35-44 years (14.8%). The highest group is from Urban locations (74.6%) compared to Rural locations (25.4%), and in urban locations, internet connection and online devices are easily accessible. In terms of Race, the majority of the secondary school teacher respondents are Malay (93.4%), Indian (5.7%), and Chinese (0.8%). The majority of the respondent is married (68%), single (30.3%), divorced, and widowed (0.8%); and this reflect the real status of secondary school teachers in Malaysia. For the subject taught, Mathematics and Science subject is the highest (30.3%), followed by Language (28.7%); Islam and Morals (17.2%); Other (13.9%), and History and Geography (9.8%). Lastly, most of the respondents serve more than 20 years (32.8%) of service as an educator; 1-5 years of service (21.3%); 11-19 years of service (16.4%); 6-10 years of service and below one year of service (14.8%). In conclusion, the demographic results are mainly from Malay (93.4%) female respondents (73.8%), aged 34 years old and below (45.1%) and serve as secondary school teachers in the urban area (74.6%), married (68%) and subject taught is Mathematics and Science (30.3%) and Language (28.7%).

Table 2 represents the variables of the reliability test conducted throughout Cronbach's Alpha test to test data consistency. The Cronbach's Alpha test scale should be more than 0.7, as it was standardized initially. The Cronbach's Alpha for the quality of life of a secondary school teacher is 0.818, 0.823 for the respondent's ICT literacy, 0.828 for the respondent's psychological factor, and 0.840 for the working environment, confirming that all the variables are reliable.

Next, a linear correlation was tested using the bivariate correlation. It ensures that the correlation between the variables is linear to proceed with further regression analysis. The finding, as shown in Table 3, indicates that all the variables tested are linear correlations. The results indicated there were moderate and statistically significant relationships between ICT literacy ( $r=.525$ ,  $p<0.01$ ), psychological factors ( $r=.702$ ,  $p<0.01$ ), working environment ( $r=.648$ ,  $p<0.01$ ), and quality of life.

In the final analysis, a standard multiple regression was performed between ICT literacy, psychological factors, working environment, and quality of life as the dependent variable. Table 4 explains the regression analysis of correlations between the variables. The standardized regression ( $\beta$ ),  $R^2$ , and adjusted  $R^2$  were discussed. According to

TABLE 1: Demographic Profile.

Characteristics	Frequency	%
<i>Gender</i>		
Male	32	26.2
Female	90	73.8
<i>Location</i>		
Urban	91	74.6
Rural	31	25.4
<i>Age</i>		
Below 34	55	45.1
35-44	18	14.8
45-55	30	24.6
>55	19	15.6
<i>Race</i>		
Malay	114	93.4
Chinese	One	.8
India	Seven	5.7
<i>Status</i>		
Single	37	30.3
Married	83	68.0
Divorced	1	.8
Widowed	1	.8
<i>Subject Taught</i>		
Language	35	28.7
Mathematics and Science	37	30.3
History and Geography	12	9.8
Islam and Moral	21	17.2
Other	17	13.9
<i>Duration of Teaching</i>		
< 1 year	18	14.8
1-5 years	26	21.3
6-10 years	18	14.8
11-19 years	20	16.4
>20 years	40	32.8

TABLE 2: Reliability Test.

Variables	Cronbach's Alpha	Item
Quality of Life	.818	Five
ICT Literacy	.823	Five
Psychological Factor	.828	Five
Working Environment	.840	Five

the results, the overall model is supported significantly with a high F value of 44.218 (p < .000). Adjusted R square (.518) indicates that the three variables substantially explain the variance in the quality of life. For the standardized coefficient among the

TABLE 3: Bivariate Correlation.

	ICT Literacy	Psychological Factor	Working Environment
Quality of Life	.525**	.702**	.648**
ICT Literacy	One	.607**	.639**
Psychological Factor	.607**	One	.752**
Working Environment	.639**	.752**	One

three relationships tested in the model, the result indicates a statistically significant difference between the psychological factor ( $\beta = 0.469$ ,  $p < .000$ ), working environment ( $\beta = 0.237$ ,  $p < .000$ ), and quality of life. In contrast, there was statistically no significant relationship between ICT Literacy and quality of life ( $\beta = 0.089$ ,  $p > .000$ ). Considering the three hypotheses discussed earlier, only H2 and H3 are supported. As for H1, this is due to the respondent’s demographic profile, mostly from urban areas and experienced educators with more than 20 years in teaching and learning, believing that ICT literacy is not as significant as a psychological and working environment. Most respondents believe that achieving their quality of life depends on psychological factors.

TABLE 4: Coefficients in the Regression Analysis.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE			
Constant	5.065	1.358		3.730	.000
ICT Literacy	.081	.077	.089	1.052	.295
Psychological Factor	.450	.096	.469	4.710	.000
Working Environment	.229	.099	.237	2.309	.023
R			.728 <sup>a</sup>		
R <sup>2</sup>			.530		
Adjusted R <sup>2</sup>			.518		
F			44.218		

- a. Predictors: (Constant), ICT Literacy, Psychological Factor, Working Environment
- b. Dependent Variable: Quality of life

## 5. Conclusion and Recommendation

This study aims to determine the factors influencing teachers’ quality of life during the COVID-19 pandemic. Based on the finding, this study revealed that all the variables: ICT literacy, psychological factor, and working environment are positively and moderately correlated with the dependent variables. Further analysis of the multiple regression



showed that only two independent variables, psychological factors, and working environment, had influenced the dependent variable, which is in line with previous studies [24]; [26]; [31]; and [30]. Psychological factors affect most teachers' quality of life. They are concerned about job satisfaction. Understandably, teachers experience many feelings – fear, nervousness, worry, and disappointment. As this phenomenon is unprecedented, it has never happened before, resulting in the students and the teachers not being fully prepared like the normal teaching and learning process. They have to fully utilise the process online, not through face-to-face interaction. The majority of the respondents are female (73.8%) and (68%) married, working from home, juggling their tasks as virtual educators, and at the same time, taking care of the children and doing the house chores. These teachers fear that the lessons might be conveyed at their best. The working environment, such as their own house, is comfortable and conducive to teaching online. One interesting finding is that the literacy of ICT is found to have no link to teachers' quality of life. This case is probably due to many issues regarding online learning, e.g., wi-fi connection, ICT skill, and laptop availability. For instance, if one family has three or four children having concurrent learning – the parents might not be able to afford many computers at home. Thus, the teachers have to use the WhatsApp application to give instruction. The feedback on students' work is mostly given via WhatsApp and email. These applications are immediate and considered adequate. Thus, there is not much ICT literacy needed at this period. The findings suggest the school management should be aware of teachers' needs, e.g., having appropriate tasks and training or course online to enhance their teaching. Motivation and moral support from the school management or School district Department is also essential in empowering the teachers' satisfaction, well-being, and quality of life.

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