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# DETERMINANTS OF THE QUALITY OF LIFE OF UNIVERSITY TEACHERS: A CASE OF A HIGHER EDUCATION INSTITUTION IN GHANA

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Michael Ayertey Nanor\*, Michael Poku-Boansi and Kwasi Kwafo Adarkwa

*Department of Planning, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana*

\*Corresponding author: [man.nanor@gmail.com](mailto:man.nanor@gmail.com)

## ABSTRACT

*This study investigates the Quality of Work Life (QoWL) among university faculty in Ghana, focusing on factors influencing work satisfaction, stress, compensation, and career development. Using a cross-sectional survey of 157 faculty members across six colleges, a structured questionnaire was developed based on Walton (1975), Ferreira (2018), and Stephen (2012) to capture key dimensions of QoWL, including work satisfaction, human resources, autonomy, remuneration, stress, and promotion opportunities. Through exploratory factor analysis, seven primary dimensions were identified, explaining 70% of the variance in QoWL, with workload and stress accounting for 11%. The Kruskal-Wallis H test revealed significant differences in QoWL satisfaction based on years of service, with longer-serving faculty reporting moderate satisfaction and new faculty showing higher levels of satisfaction. Key findings indicate that faculty experience moderate QoWL, with prominent challenges in stress management, compensation, and limited career advancement opportunities. Faculty members expressed concerns about salary disparities compared to peers in other sectors, highlighting risks of demotivation and attrition. The study concludes that university teachers enjoy a moderate quality of life, but need to pay attention to stress, compensation and promotional opportunity problems. Work contentment, human resource operations, autonomy and remuneration are key factors that determine faculty quality of life. Stress, salary comparisons to other industries, and those risks of faculty attrition and demotivation also exist. These findings suggest urgent strategic action from administration and policymakers at university level to improve work conditions and create a motivated, resilient faculty, capable of supporting Ghana's increasingly large and important higher education sector now and in the future.*

**Keywords:** University teachers, Quality-of-Work-Life, Academic Staff, Stress, Satisfaction

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## **INTRODUCTION**

The development trend of a nation's economic development depends very much on a well educated population and tertiary education plays the critical role in this development especially for developed nations (Kapur and Crowley, 2008). Traditionally, tertiary education has mainly been provided by universities, however, new dynamics of a knowledge based economy require that new expectations be made of universities, whereby universities need to develop strategic, proactive and explicitly defined relationships with society (Maassen *et al.*, 2019). Through the collective participation of academic and non academic staff of universities have become indispensable institutions to meet with the national development objectives, producing valuable knowledge (Newman, 1852). Among these, academic staff bear a unique responsibility: not only are they important in education delivery, they are importantly involved in the preparation of students to be disciplined, skilled and ethical workforce and society members (Lawer 2019; Isa and Panpaladan 2020). The responsibilities and the roles of lecturers include instruction, research publication, and other various administrative roles (Ombati Karume, and Thiga, 2019).

Kusi, Mensah and Gyaki (2014) assert that in Ghana, lecturers serve the community in administrative capacities as counselors, examination officers, postgraduate coordinators, department heads, directors, and deans, among many other positions of responsibility. Also, lecturers supervise theses, and project works in addition to instructing classes with up to 400 students per semester. In extreme cases, some lecturers supervise as many as 30 students per semester, primarily due to the operation of both regular and sandwich programs.

These pressures have a significant impact on the health and mental well-being of university instructors.

The COVID-19 pandemic exacerbated the already challenging workload of university lecturers by introducing hybrid teaching methods and heightened health protocols, further straining their psychological and physiological well-being (Bhargava and Trivedi, 2018). Studies have indicated that stress is prevalent among university lecturers, with serious implications for their health and productivity, thereby highlighting the importance of a conducive work environment to mitigate these effects (Adom Essel, and Chukwuere, 2020; Amini-Philips and Okonmah, 2020). Despite these pressures, lecturers in Ghana face a high-stress work environment where, in extreme cases, occupational stress has resulted in severe health issues, including strokes (Amini-Philips *et al.*, 2020).

To address these escalating pressures and responsibilities, it is essential to examine how these factors collectively impact the well-being and productivity of university lecturers. The intensified demands placed upon academic staff—spanning extensive teaching, administrative obligations, and the transition to hybrid learning models—have made stress management and quality of work life (QoWL) critical areas of concern in higher education. Moreover, with the additional challenges unique to the Ghanaian academic landscape, such as limited resources and large class sizes, the need for a conducive work environment becomes even more pressing. Despite the substantial body of literature examining occupational stress and workload in academia globally, research focusing on the well-being and quality of work life (QoWL) of university lecturers in Africa remains limited (Olaitan *et al.*, 2010). The unique socio-economic and institutional challenges faced by lecturers in African

nations, particularly in the Ghanaian context, such as large class sizes, limited resources, and high student-to-staff ratios, underscore the need for a conducive work environment tailored to these conditions (Adom *et al.*, 2020; Amini-Philips and Okonmah, 2020). These challenges, coupled with a high-stress work environment, have significant implications for the health, productivity, and overall well-being of lecturers in the region.

Given these complexities and the scarcity of research addressing QoWL in the African academic landscape, this paper seeks to go beyond merely documenting stress and workload issues. Instead, it systematically identifies and analyzes the primary factors impacting the quality of work life for senior members in the Ghanaian university context. By examining these stressors and working conditions, this study aims to provide a clearer understanding of the unique drivers of QoWL in Ghanaian academia and to offer actionable recommendations to enhance the work life quality of lecturers. This contribution is crucial for fostering improved mental well-being, physical health, and academic output among university lecturers in Africa, providing a foundation for more extensive research and policy development to support academic staff across the continent.

### **Concept of Quality of Work Life**

QoWL is important for fostering employee commitment and satisfaction (Albuquerque, Ferreira, Antloga, and Maia, 2015; Farid *et al.*, 2015). The QoWL is a multifaceted concept that incorporates multidimensional constructs conveyed by the diverse interests of its researchers. Due to the increasing demands of the contemporary workplace, the subject matter of QoWL has become crucial. This increased interest in QoWL is not found only in the business workplace but also in a variety of other professions and fields (Bagtasos, 2011; Akdere, 2006).

QoWL is a complex construct that encompasses concepts such as workflows, job stability, incentive compensation, professional and educational development opportunities, and involvement in decision-making (Kheradmand *et al.*, 2010). It is used in a variety of contexts and has no single definition. QoWL (Quality of Work-life) is a subjective concept that examines the impact of work on people, their work, and the organisations for which they work. It is flexible and dynamic, with authors such as Ahmad (2013), Aketch *et al.* (2012), Lee Dai, Park, and McCreary (2013) and Medeiros and Ferreira (2011) all contributing to its definition. Hence, QoWL is a measure of employee well-being, which includes contentment with physical and psychological work and day-to-day life factors. It reflects how workers interact with their workplaces, with an individual's level of quality of work-life balance either favourable or unfavourable. (Davis, 1983).

University teachers' quality of life (QoL) is an important consideration of work and personal life that determines their performance and dedication to their profession. Knowledge of QoL antecedents can help higher learning institutions support environments that promote higher quality of life and job satisfaction. To accomplish the objectives of this study, this literature review entailed identification, synthesis, analysis and comparison of literature pertaining to the QoWL dimensions in multiple disciplines and more specifically in the context of higher education institutions. It also demonstrated the gaps within existing literature and how this research could fill such gaps especially in relation to university teachers in Ghana.

### **Dimensions of Quality of Work Life (QoWL) Applied by Scholars in Other Fields**

#### **a. Work Environment and Job Satisfaction**

There are studies that have explored the impact of supportive perceptions

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of the organization-encompassed work environment on job satisfaction and QoL in the healthcare and corporate sectors (Shuck *et al.*, 2011; Sloan, 2012). For example, a study done among nurses revealed that healthcare supportive work conditions are positively related to mental health and job satisfaction (Laschinger *et al.*, 2014). Also, the authors have recognized that variables, including job satisfaction, equitable remuneration, and interpersonal perceptions, are central to QoWL (Koonmee *et al.*, 2010). Some of the key findings include: Promotion of a positive workplace environment fosters stress reduction, increased morale and thereby improves job satisfaction (Sloan, 2012). On the other hand, high stress with inadequate resources negatively affect the workers' mental health and decrease satisfaction with the job (Laschinger *et al.*, 2014). However, these existing pieces of research have fundamentally targeted health care and corporate sectors and thus, there is a relatively scant attention to the work pressures or experiences of academic staff (Noor and Abdullah, 2012).

### b. Work-Life Balance and Personal Time

Quality of Life (QoL) has been widely examined across various sectors, with evidence indicating that conflicts between work and personal responsibilities can significantly diminish one's quality of life (Kossek and Ozeki, 1998). Studies in corporate sectors have shown that flexible working hours can lead to better QoL and work life balance (Batt and Valcour, 2003). However, work life balance problems in academic settings are quite different from other workplace owing to the fact that many academic settings impose strict schedules, which suggests that teaching, research, and administrative responsibilities may interfere with personal and familial obligations (Houston *et al.*, 2006). Key findings are (i) flexible work scheduling policies improve QoL in non academic

fields (Batt and Valcour, 2003). (ii) As in academia, poor work life balance can result in burnout and lower job satisfaction and thus decreasing productivity (Houston *et al.*, 2006). However, the limitations were that studies in work life balance within academia are few and they usually disregard the psychological effect of heavy workloads, poor work conditions and little personal time (Kalliath and Brough, 2008).

## Dimensions of Quality of Work Life

Westley (1979) and Walton (1973) argued that QoWL is a term that refers to environmental and human principles and Ferreira (2018) asserts that the growing interest in QoWL can be broken down into three groups centered on three sets of rules for research:

- a. The **social perspective** combines work and its implications (economic, political, technological, and cultural) to create a balance between employee well-being and customer and citizen satisfaction, while still adhering to the needs for efficiency and effectiveness.
- b. The **viewpoint of institutions** views QoWL as a means of comprehending and resolving a range of issues that arise in corporate environments; and
- c. The **academic perspective** seeks to consider the function and area of intervention of the health and labor sciences, which are crucial to the development of the traditional QoWL approach.

Langton and Robbins (2007) further the work of Walton (1975) and proposed the concept of quality of work-life, as a process of responding to employee needs by developing mechanisms to allow them to participate in the decisions that design their lives at work. This was based on the QoWL framework, which includes eight characteristics that make up a desirable quality of work-life. The dimensions, known as components of quality of work life, are shown in Figure 1.



**Figure 1:** Components of quality of work-life

**Source:** Ishak et al., 2018

Walton, 1975 stated that majority of employees experience workplace dissatisfaction and the inability to pinpoint the causes makes it a complex problem.

i. **Walton’s Quality of Work Life (QoWL) Model:** Walton’s QoWL model is a foundational framework that outlines essential dimensions contributing to the quality of work life. It identifies key components such as:

- **Adequate and Fair Compensation:** Ensuring fair wages and benefits to meet basic living standards.
- **Safe and Healthy Work Environment:** Providing physical and psychological safety at work.
- **Growth and Security:** Opportunities for professional development and job security.
- **Social Integration:** Promoting a sense of belonging and acceptance within the workplace.
- **Constitutionalism:** Upholding rights and providing fair processes at work.
- **Social Relevance:** Aligning the organization’s goals with societal values.

- **Total Life Space:** Balancing work responsibilities with personal life.
- **Development of Human Capacity:** Encouraging skill enhancement and professional growth.

Walton’s model is well-regarded for its comprehensive approach to understanding work life quality, addressing not only economic needs but also psychological and social well-being (Walton, 1975).

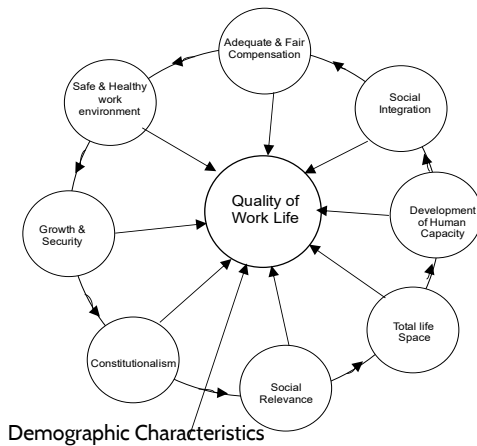
ii. Stephen and Dhanapal (2012) proposed QoWL model by adding demographic characteristics as contextual factor over Walton’s (2007) conceptualization. The emphasis of this model is on the fact that individual’s demographic characteristics (age, gender, marital status, and educational background) are critical factors determining the way an individual feels and perceives work at the “QoL” level. In the university context, knowledge of such characteristics facilitates tailored approach as faculty members’ needs and satisfaction levels might be different depending on them (Stephen and Dhanapal 2012).

iii. Ferreira (2018) developed her model based on the integration of social relevance and constitutionalism within a context of contemporary organizational challenges. This model suggests that contemporary work environments should not only do justice to fair practices and social responsibility, but at the same time, stay responsive to the ongoing changes in society, especially in the era of diverse and knowledge-based work environment such as higher education. Ferreira’s contributions emphasize the entanglements between institutional goals and broader social expectations and how institutions should promote democratic workplace practices (Ferreira, 2018). This shows that QoWL is a broad

multidimensional concept that involves models reflecting a number of interrelated organizational and human dimensions (Rethinam and Ismail, 2008),

### Conceptual Framework

The QoWL model shown below was integrated with additional constructs from Walton (1985), Stephen and Dhanapal (2012) and Ferreira (2018). It is necessary to compare the identified distinctive dimensions from the three models, explain the scholarly process of their combination, and discuss the rationale for the use of these dimensions in the university environment.



**Figure 2:** Conceptual Framework for QoWL in the Study

**Source:** Authors' Concept

This study examines the relationship between the eight (8) dimensions of the QoWL index in the selected University and the effect of demographic characteristics on the eight dimensions. The outer circle linking all the dimensions shows that there were potential correlations among the various dimensions, which were explored in this study (see figure 2).

### Justification for the Integrated Model

The integration of Walton's, Stephen's, and Ferreira's models provides a holistic approach tailored for the academic setting. The decision to merge elements from these three models is grounded in the following scholarly justifications:

#### a. Comprehensive Coverage of Work Life Quality Dimensions

Even though Walton's model is an important one, it might not provide the level of context specificity involved in representing a higher education environment comprised of a diverse group of demographic characteristics (as explained in Stephen and Dhanapal model), and sensitivity to societal values (as pointed out in Ferreira). However, incorporating multiple models, the study accepts the fact that the work life quality of university faculty depends on the combined effects economic, psychological, social and demographic variables.

#### b. Adaptation to Higher Education Context

In the academic setting, there are unique challenges and needs including intellectual growth demand, social expectation alignment, and a diversity of faculty. Due to the integration of Stephen and Dhanapal interest in demographic characteristics and Ferreira's emphasis on social relevance and adaptability, the framework is better situated to respond to the multiple experiences of university faculty.

#### c. Addressing Societal and Institutional Pressures

The contributions by Ferreira emphasize the role of constitutionalism and social relevance in the workplace, which are particularly relevant in educational institutions that have a mandate to shape the future. The inclusion of Ferreira's model elements is justified by

the fact that university environments are increasingly being asked to mirror societal values, be fair, and uphold faculty rights.

#### **d. Current Trends and Needs Reflected**

Since recent QoWL research is increasingly recognizing quality of life at work as multidimensional, people are having different understanding about QoWL depending on their backgrounds, social changes, and organizational culture. Including Stephen and Dhanapal's and Ferreira's dimensions is, in line with current tendencies in QoWL research, multimodal in that it captures shifts within the workplace, particularly in the increasingly socially and culturally diverse environment of universities.

### **Relevance of the conceptual framework to the Study**

The conceptual framework, integrating Walton's QoWL model with elements from Stephen and Dhanapal (2012) and Ferreira (2018), is highly relevant for studying the quality of life (QoL) of university teachers in Ghana. Walton's model covers fundamental QoL factors like fair compensation and safe work environments, essential for job satisfaction and retention. Stephen's focus on demographic characteristics helps capture diverse experiences across different groups, while Ferreira's emphasis on social relevance and ethical standards aligns with the role of universities as societal institutions. This integrated approach addresses both traditional and Ghana-specific challenges in higher education, offering a comprehensive understanding of QoL determinants for university faculty.

In terms of methodology, the conceptual framework shaped the study's methodology through specific implications for research design, data collection, and analysis:

- a. **Data Collection:** Data were gathered on several QoL dimensions via quantitative surveys, utilizing standardized questionnaires developed from Walton's, Stephen's and Ferreira's models. A number of QoL aspects, including demographic and social relevance, were encompassed in this approach.
- b. **Sampling:** To explore how QoL changes in different groups (e.g., faculty demographics such as gender and age), and what that means for a sample of the university, a diverse sample was selected that represents the faculty demographics (e.g., gender, age).
- c. **Data Analysis:** Relationship between dimensions of QoL and the demographic characteristic was studied using statistical methods like factor analysis, Kruskal Wallis Test and other non-parametric tests.
- d. **Contextual Adaptation:** In Ghana's socio-cultural context, this was tailored to suit the methodology which used culturally appropriate survey items and questions by synonymizing them with local labor laws and institutional policies to increase accuracy and relevance.

## **METHODOLOGY AND STUDY AREA**

The research design adopted for this study was a cross-sectional survey, utilizing a structured questionnaire to collect data at a single point in time. A cross-sectional design involves analyzing data from a specific population at one time, providing a snapshot of the participants' experiences and perceptions. This design was suitable for examining the quality of work life (QoWL) among university faculty and research staff, as it allowed for the assessment of various

QoWL dimensions and their relationship with demographic factors without the need for longitudinal data. A researcher-designed questionnaire, consisting of 47 items, was developed based on the conceptual framework, which integrates Walton's Quality of Work Life model and elements from Stephen and Dhanapal (2012) and Ferreira (2018). The questionnaire was structured to capture key dimensions of QoWL, including fair compensation, work environment, growth opportunities, social relevance, and demographic characteristics.

To assure comprehensive coverage of QoWL aspects, each questionnaire item was closely aligned with constructs defined in the conceptual framework. The questionnaire was subjected to a rigorous pilot test. Content validity was established in the first place through the expert review, where professionals of QoWL and survey development examined each item for it being relevant and understandable. A second pilot test was conducted with a subset of faculty members to assess the reliability and construct validity of the instrument. Based on feedback from the pilot, minor revisions were made, and the reliability of the instrument, as measured by Cronbach's alpha, was calculated to ensure its suitability for use in the study.

### **Research Setting and Population**

The study was conducted at the Kwame Nkrumah University of Science and Technology in Ghana with approximately 84,000 students and around 1,400 faculty and research staff. The university offers diverse academic programs across disciplines such as Engineering, Health Sciences, Art, Architecture, Planning, Construction Technology, Basic Sciences, Liberal Arts, Business Administration, and Mathematics. Most faculty members possess terminal degrees, primarily PhDs, underscoring the

research-driven focus of the academic staff ([www.knust.edu.gh](http://www.knust.edu.gh))

### **Sampling**

The cross-sectional design framework guided the sampling process, aiming to represent the entire university faculty across six colleges: Agriculture and Natural Resources, Art and Built Environment, Engineering, Science, Health Sciences, and Humanities and Social Sciences. A multi-stage probability sampling method was employed, beginning with the stratification of staff into these six colleges, followed by further stratification by departments within each college. This sampling method ensured that the selected respondents represented a diverse cross-section of faculty across different academic units, allowing for the generalization of findings within the university context. In all, 157 Senior Members were selected for the study. This is about 11% of the total population. The justification of the 11% is based on Kotrlik, and Higgins (2001) on Organizational Research and Fowler (2013) who recommends 10% is sufficient for smaller populations or exploratory studies, provided it meets the study's precision requirements. To ensure proportional representation across the six colleges, the sample was allocated based on each college's share of the total faculty population. The distribution was designed to capture the diversity within each college, ensuring a representative sample that allowed for meaningful analysis of Quality of Work Life (QoWL) dimensions across various academic disciplines. Below is the distribution of participants (See Table 3.1):



**Table 3.1: Distribution of Sample size Across Colleges**

College	Number of Participants	Percentage of Sample (%)	Cumulative Percentage (%)
Science	21	13.4	13.4
Engineering	25	15.9	29.3
Agriculture and Natural Resources	24	15.3	44.6
Health Science	24	15.3	59.9
Art and Built Environment	23	14.6	74.5
Humanities and Social Sciences	40	25.5	100.0

**Source:** Authors’ construct

This is a distributional form that depicts, in proportion, respondents’ distribution on the colleges according to their total faculty size in each. To ensure that QoWL was presented in balanced fashion, the study adhered to the 10% principle, which meant that all colleges were represented according to their size. Forming the largest representation was the College of Humanities and Social Sciences (25.5%), followed by Engineering (15.9%) and Agriculture and Natural Resources (15.3%).

The sample distribution across colleges was operationalized through a multi-stage probability sampling approach, ensuring proportional representation and eliminating bias:

- a. **Proportional Allocation by College:** Each college received a number of sample slots proportional to its share of the overall faculty population, as seen in the table. This proportional allocation ensured that larger colleges, such as Humanities and Social Sciences, had more participants, providing a realistic reflection of the faculty distribution within the university.
- b. **Simple Random Sampling within Each College:** A simple random sampling were carried out by drawing respondents

within each college, after deciding the number of participants per college. Each eligible participant had the same chance to be selected by randomly selecting faculty members from each college. The randomization minimised selection bias and ensured that the sample represents each college’s faculty diversity.

- c. **Representation of Academic Disciplines and Demographics:** By applying this approach, the study achieved a representative distribution of faculty across various academic disciplines and departments, capturing different perspectives and experiences within each college. This enhanced the generalizability of the findings to the entire faculty population.

**Data Collection**

In order to collect data on the university’s six colleges in an efficient and broad reaching manner, the questionnaires were distributed to respondents via email. To accommodate faculty from across all department and academic units who would be able to participate, and regardless of their physical location or work schedules, it was decided to go with this method. This helped to accelerate

an otherwise delayed response rate, simplify logistical challenges, and provide respondents with the flexibility to complete the survey at their own pace. This approach also enabled anonymity thereby promoting honest responses on dimensions of QoWL that are sensitive, including perceptions of fair compensation, environmental conditions, and institutional support. The questionnaire synthesizes key QoWL dimensions to assess the work-life quality of university faculty comprehensively. By following a structured validation process—including expert review, pilot testing, and reliability and validity analysis—the questionnaire was found to accurately capture QoWL dimensions, making it a useful tool for understanding and addressing the unique work-life challenges faced by academic staff.

### **Data Analysis**

In this study, the analytical framework was meticulously designed to examine the quality of work life (QoWL) among university faculty, employing several key statistical and machine learning methods to understand and validate the conceptual dimensions of QoWL and to explore demographic influences on faculty perceptions. This multifaceted approach is essential for capturing the complexities inherent in faculty experiences and perceptions of their work environment (Kermansaravi *et al.*, 2014; , Maghaminejad and Adib-Hajbaghery, 2016).

In the study, to derive the dimensions of QoWL, exploratory factor analysis was used. EFA was used to identify the latent structure in the data that were collected from a 47 item questionnaire framed on the conceptual framework for QoWL. Because of the large number of variables, EFA was ideal for reducing these data into a small number of core, interpretable factors that represent dimensions of QoWL in accord with Walton's model, as well as aspects of

the Stephen and Ferreira (Maghaminejad and Adib-Hajbaghery, 2016) adaptations. In a novel context such as university faculty QoWL (Sinval *et al.* 2019), this method allowed an organic revelation of dimensions through dimensions, rather than by physically imposing a preconceived shape.

### **Kruskal-Wallis H Test**

Second, the Kruskal-Wallis H Test was used to investigate variations in QoWL perceptions by demographic groups. As a non parametric test, it does not require assumption of normality, and is verified by Shapiro-Wilk and Kolmogorov-Smirnov tests, which made it suitable for QoWL data that is non normally distributed (Kermansaravi *et al.*, 2014). Across demographic variables including age, gender, academic rank, and college affiliation, the test was applied in order to better understand how perceived QoWL scores varied among groups (Kermansaravi *et al.*, 2014). The test was applied across variables such as age, gender, academic rank, and college affiliation. Each demographic variable was categorized (e.g., age ranges, academic ranks) to examine how perceived QoWL scores differed across groups. Significant Kruskal-Wallis results ( $p < 0.05$ ) indicated differences in median QoWL scores among groups. Post-hoc pairwise comparisons with Bonferroni correction revealed specific group differences, highlighting factors like academic rank and college affiliation as significant influences on QoWL perceptions. This analysis underscored the importance of demographic variables in shaping faculty QoWL.

### **Multilayer Perceptron (MLP) Neural Network Analysis**

As the relationships between the factors of the QoWL can be complex and possibly non linear, the MLP Neural Network was used to determine the overlap strength of each of the QoWL dimensions (Sinval *et al.*,

2019). An MLP (Multi-Layer Perceptron) architecture was implemented to model the factors identified through Exploratory Factor Analysis (EFA). This architecture included a hidden layer, designed to capture complex interactions among the factors using a ReLU (Rectified Linear Unit) activation function, and an output layer, which was configured to predict Quality of Work Life (QoWL) scores. Training of the model was performed with an 80-20 split between training and validation, using a backpropagation algorithm minimizing weights to maximize the accuracy of the prediction. Relative importance scores of each QoWL factor were then outputted by the MLP, indicating the strength of each factor’s contribution to perceived QoWL.

**Polynomial Regression Analysis**

Finally, Incorporation of polynomial regression was used to capture possible curvilinear relationships between QoWL dimensions and perceived QoWL. Polynomial regression is different from linear models because it can model data that have non-linear trends, which is great for understanding complex relationships that may not be apparent with linear analysis (Cohen *et al.*, 2010). Fitting polynomial models for each QoWL dimension and perceived QoWL score helped to gain insight into how some factors may have diminishing or accelerating effects on perceptions by level (Sinval *et al.*, 2019).

**RESULTS AND DISCUSSION**

**Background Characteristics of Participants**

One hundred and fifty-seven (157) senior members at the Kwame Nkrumah University of Science and Technology participated in the study, with about 75% being male and 25% being female. Majority of the respondents were younger than 51 years old, with 137 of them being married. Ten percent had never been married. (see Table 4.1 for other demographics).

Among the 157 participants in the study, 69 (43.9%) were Senior Lecturers/Senior Research Fellows, 63 (40.1%) were Lecturers or Research Fellows, and 10 (6.4%) were Associate Professors. Sixty-seven (67) participants, representing 42.7%, had served in the institution for four to ten years. These individuals are followed by those who have served between 11 and 20 years which accounted for about 21.7% of the total number of participants. In addition, there were approximately 28 participants who had served between one and three years representing 17.8% of the total number of participants.

**Table 4.1: Background characteristics of the Participants (n = 157).**

Participant Characteristics	Frequency	Percent	Cumulative Percent
<b>Gender</b>			
Male	117	74.5	74.5
Female	40	25.5	100.0
<b>Age</b>			
30 - 40 years	58	36.9	36.9
41 - 50 years	71	45.2	82.2
51 - 60 years	28	17.8	100

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<b>Marital Status</b>			
Never Married	16	10.2	10.2
Married	137	87.3	97.5
Separated	1	0.6	98.1
Widowed	3	1.9	100
<b>College of Participants</b>			
Science	21	13.4	13.4
Engineering	25	15.9	29.3
Agriculture and Natural Resources	24	15.3	44.6
Health Science	24	15.3	59.9
Art and Built Environment	23	14.6	74.5
Humanities and Social Sciences	40	25.5	100
<b>Rank of Participants</b>			
Professor	6	3.8	3.8
Associate Professor	10	6.4	10.2
Senior Lecturer/Senior Research Fellow	69	43.9	54.1
Lecturer/Research Fellow	63	40.1	94.3
Assistant Lecturer/ Assistant Research Fellow	9	5.7	100
<b>Service Period in the University</b>			
Less than 1 year	15	9.6	9.6
1 - 3 years	28	17.8	27.4
4 -10 years	67	42.7	70.1
11 - 20 years	34	21.7	91.7
21 - 30 years	10	6.4	98.1
Above 30 years	3	1.9	100
<b>Ownership of means of Transport</b>			
Yes	142	90.4	90.4
No	15	9.6	100
<b>Minutes of Exercise per Week</b>			
Minutes			
0	16	10.2	10.2
20	1	0.6	10.8
30	70	44.6	55.4
45	25	15.9	71.3

90	19	12.1	83.4
120	11	7	90.4
150	15	9.6	100

Source: Survey, June 2022

### Analysis of Overall Quality of Work life

Table 4.2 presents an overview of respondents' satisfaction levels with their Quality of Work Life (QoWL). The responses are categorized into three levels: Dissatisfied, Moderately Satisfied, and Satisfied.

**Dissatisfied:** Out of 157 respondents, 37 expressed dissatisfaction with their QoWL, representing 23.6% of the sample. This segment indicates a significant portion of employees who feel that their work environment does not meet their expectations or needs, potentially due to factors like insufficient support, compensation, or growth opportunities.

**Moderately Satisfied:** The largest group, with 73 respondents (46.5%), reported moderate satisfaction. This suggests that nearly half of the respondents find some aspects of their QoWL satisfactory but may also have

reservations or unmet expectations. This group reflects an area where improvements in specific QoWL dimensions could enhance overall satisfaction.

**Satisfied:** A total of 47 respondents, or 29.9%, indicated full satisfaction with their QoWL, suggesting that this group finds their workplace conditions, benefits, and work-life balance adequately fulfilling.

The cumulative percentages show that by adding the Dissatisfied and Moderately Satisfied groups, 70.1% of respondents fall below full satisfaction with their QoWL. This finding implies a need for improvement in QoWL, as only 29.9% of employees reported complete satisfaction. Understanding the specific QoWL factors contributing to dissatisfaction or moderate satisfaction could help address these issues and promote a more satisfying work environment for the majority of staff.

**Table 4.2: Overall Satisfaction with Quality of Work Life**

Level of Satisfaction	Frequency	Percent	Cumulative Percent
Dissatisfied	37	23.6	23.6
Moderately Satisfied	73	46.5	70.1
Satisfied	47	29.9	100.0
Total	157	100.0	

Source: Authors' Estimation, June 2022

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**Differences in Quality of Work Life concerning the background of Participants**

The role that demographic background plays in determining QWoL cannot be

overemphasized. Table 4.3 provides the results of an in-depth examination of respondents' level of satisfaction with their well-being at the university.

**Table 4.3: Respondents' Level of Satisfaction with their well-being at the \*University**

Characteristic	Category	N	Mean Rank	Kruskal-Wallis H	sig.
<b>Gender</b>					
	Male	117	78.87	0.004	0.948
	Female	40	79.38		
<b>Age group</b>					
	30 - 40 years	58	74.95	0.946	0.63
	41 - 50 years	71	80.55		
	51 - 60 years	28	83.46		
<b>College</b>					
	Science	21	64.71	7.402	0.192
	Engineering	25	77.80		
	Agriculture and Natural Resources	24	80.04		
	Health Science	24	96.71		
	Art and Built Environment	23	82.48		
	Humanities and Social Sciences	40	74.00		
<b>Rank</b>					
	Professor	6	94.83	4.553	0.336
	Associate Professor	10	65.00		
	Senior Lecturer/Senior Research Fellow	69	77.77		
	Lecturer/Research Fellow	63	77.89		
	Assistant Lecturer/ Assistant Research Fellow	9	101.22		
<b>University Service Period</b>					
	Less than 1 year	15	110.00		
	1 - 3 years	28	75.43		

4 -10 years	67	70.79		
11 - 20 years	34	84.29	11.86	0.037
21 - 30 years	10	75.00		
Above 30 years	3	94.00		

Source: Authors’ Estimation, June 2022

Using the Kruskal-Wallis H test, the results show there were no significant differences in the overall well-being of the participants of the study concerning gender, age group, and the College a participant belongs to as well as the rank of the participant. Kruskal-Wallis’ test provided very strong evidence of a difference ( $p < 0.05$ ) between the mean ranks of at least one pair of groups in the University Service period. It was discovered that there was a difference in the level of satisfaction

with well-being regarding the length of time a faculty has spent working at the University. The analysed data show that the majority (66.7%) of those who had worked for above 30 years in the university were moderately satisfied with their well-being. It is, however, intriguing that those who had worked for less than 1 year, constituting about 60%, reported the highest level of satisfaction with their well-being in the university. (See Table 4.4)

**Table 4.4: Perception of overall quality of life with respect to the length of time spent working in the \*University**

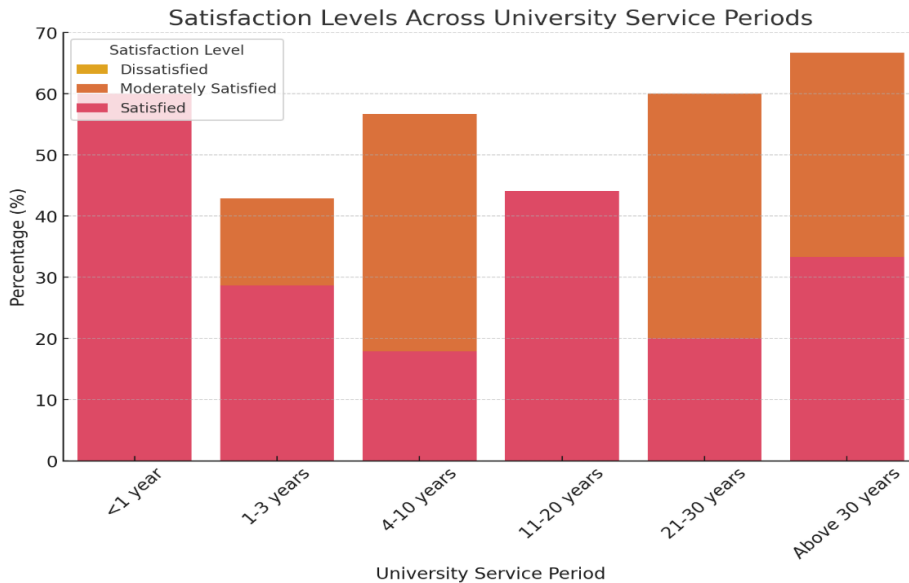
Perception of overall quality of life	University Service Period						Total
	Less than 1 year	1 - 3 years	4 -10 years	11 - 20 years	21 - 30 years	Above 30 years	
Dissatisfied		28.6%	25.4%	29.4%	20.0%		23.6%
Moderately Satisfied	40.0%	42.9%	56.7%	26.5%	60.0%	66.7%	46.5%
Satisfied	60.0%	28.6%	17.9%	44.1%	20.0%	33.3%	29.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Authors’ Estimation, June 2022

This study investigates the relationship between university tenure and employee satisfaction using polynomial regression analysis. We analyze satisfaction data across tenure ranges and model the trajectory of three satisfaction levels—Dissatisfied, Moderately Satisfied, and Satisfied—to predict trends over time.

The Stacked bar chart (Figure 3) offers a more advanced visualization of satisfaction levels across different university service periods. The interpretations are as follows:

## Determinants of the Quality of Life of University Teachers



**Figure 3:** Satisfaction Levels Across University Service Periods

**Source:** Authors' construct, June 2022

**a. Shifts in Satisfaction Levels:** Figure 3 clearly shows how “Satisfied” levels start high, decrease in the 4–10-year range, and recover slightly but never reach the initial levels.

**b. Moderate Satisfaction Dominance:** The “Moderately Satisfied” category generally increases as tenure progresses, becoming the most prevalent in later stages, particularly past 20 years.

**c. Dissatisfaction Patterns:** Dissatisfaction peaks in the 4–10-year range, highlighting a critical phase where more support might be needed to maintain satisfaction.

A third-degree polynomial model was employed, as it provided the best fit for capturing the nuanced trends within the three satisfaction levels across tenure.



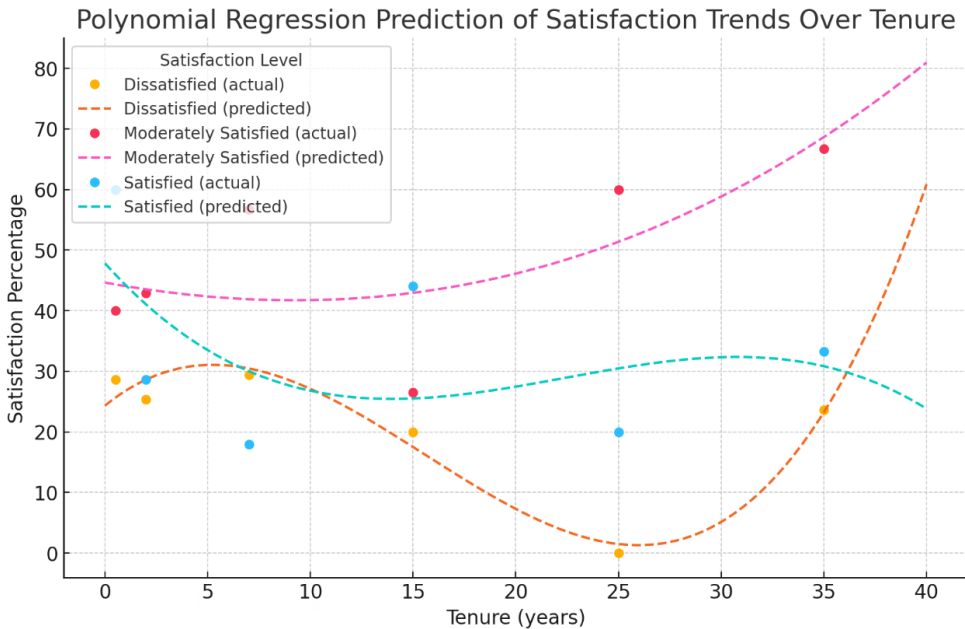


Figure 4: polynomial regression prediction of satisfaction trends over tenure

Source: Authors' construct, June 2022

The model reveals distinct trends for each satisfaction level (See figure 4):

**Dissatisfied:** The predicted trend suggests dissatisfaction peaks during the mid-career phase (approximately 5-10 years) and decreases slightly for longer-tenured employees. This trend indicates a period where employees may experience unmet expectations, leading to heightened dissatisfaction. Afterward, dissatisfaction declines as employees potentially adapt or gain stability within their roles.

**Moderately Satisfied:** Moderate satisfaction follows a steadily increasing trajectory, particularly in later career stages, becoming the most stable satisfaction category over time.

This trend suggests that while employees might not be fully satisfied, they often reach a contented equilibrium in their longer

tenures, likely due to role familiarity and adaptation to institutional culture.

**Satisfied:** The data exhibits a U-shaped trend for satisfaction, with high initial levels in the early years (<1 year), a notable dip in the mid-career phase (4-10 years), and partial recovery afterward. This finding supports the hypothesis that new employees start with optimism but encounter a challenging mid-career adjustment phase. For those who remain, satisfaction improves, though it does not return to the initial high levels, suggesting a plateau. A Post-Hoc analysis of the Kruskal-Wallis H test for the differences in well-being regarding the length of time in the university revealed that there was very strong evidence ( $p < 0.05$ , adjusted using the Bonferroni correction) of a difference between the group which had worked for 4-10 years and those who have worked for less than 1 year (See Table 4.5)

**Table 4.5: Post-Hoc Analysis for University Service Period and overall perceived QoWL**

Each node shows the sample average rank of the University Service Period.

Sample 1 - Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
4 - 10 years - 21 - 30 years	-4.209	14.290	-0.295	0.768	1.000
4 - 10 years - 1 - 3 years	4.638	9.486	0.489	0.625	1.000
4 - 10 years - 11 - 20 years	-13.503	8.876	-1.521	0.128	1.000
4 - 10 years - Above 30 years	-23.209	24.876	-0.933	0.351	1.000
4 - 10 years - Less than 1 year	39.209	12.041	3.256	0.001	0.017
21 - 30 years - 1- 3 years	0.429	15.529	0.28	0.978	1.000
21 - 30 years - 11 - 20 years	9.924	15.164	0.613	0.540	1.000
21 - 30 years - Above 30 years	-19.00	27.749	-0.685	0.494	1.000
21 - 30 years - Less than 1 year	35.000	17.209	2.034	0.042	0.630
1 - 3 years - 11 - 20 years	-8.866	10.758	-0.824	0.410	1.000
1 - 3 years - Above 30 years	-18.571	25.608	-0.725	0.468	1.000
1 - 3 years - Less than 1 year	34.571	13.488	2.563	0.010	0.156
11 - 20 years - Above 30 years	-9.706	25.388	-0.382	0.702	1.000
11 - 20years - Less than 1 year	25.706	13.066	1.967	0.049	0.737
Above 30 years - Less than 1 year	16.000	26.660	0.6000	0.548	1.000

Source: Authors’ Estimation, June 2022

### Analysis of the Determinants of Quality of Work Life

This section of the paper discusses the factors that influence the quality of worklife of study participants. It was based on the data collection instrument’s subdivisions and included questions on latent variables such as job opportunities, adequate and complete compensation, working conditions, capacity utilisation, social integration, constitutionalism, work, leisure, and the social relevance of the University.

An Exploratory Factor Analysis (EFA) was adopted to determine the classification of observed variables on various latent variables. The Cronbach alpha for the items was 0.867, which is a good measure of the reliability of the various items on the data collection

instrument. The Kaiser-Meyer-Olkin (KMO) measure of Sampling Adequacy (0.861) and Bartlett’s test of Sphericity (2562.66, p=0.000) value showed that the observed variables loaded onto each factor significantly.

Table 4.6 shows factor loadings across seven identified factors (F1 to F7), each representing distinct dimensions of Quality of Work Life (QoWL) based on satisfaction indicators. Factor loadings above 0.6 are significant, showing which indicators align with each factor. The cumulative variance explained by these factors is the percentage of variance each contributes to understanding overall QoWL.

Table 4.6 shows the seven (7) factors that were important in explaining the level of satisfaction with the well-being of the

participants in the study. These seven (7) factors explained approximately 70% of the total variation in the reported well-being of the participants in the study. .

**Factor 1 (F1): (14.516%) Rights, Autonomy, and Expression (Constitutionality of the Work Environment).**

This factor includes items such as satisfaction with the university's respect for workers' rights (0.830), freedom of expression at work (0.785), human resources policies (0.648) and autonomy at work (0.643).

**Interpretation:** An overarching theme of rights, autonomy, and workplace freedom, F1 stands for an occupational freedom. The high loading on "respect for workers' rights" suggests that employee perceptions of institutional respect and personal autonomy play a major role in QoWL. This factor (14.5%) explains the largest part of the variance and indicates why the organizational respect and freedom are influencing work satisfaction.

**Factor 2 (F2): Compensation and Benefits (12.47 %).**

In other words, this factor is correlated mainly with salary satisfaction (0.871), comparative salary satisfaction with peers elsewhere (0.837), extra benefits given by the university (0.609), and incentives for further studies (0.604).

**Interpretation:** Employee satisfaction with compensation, benefits and financial support for career development is reflected as F2. Salary adequacy loadings, as well as comparisons with others, indicate that financial recognition and comparative income are important in employees' perceptions of their QoWL. Competitive and fair compensation accounted for 12.5% of the variance in this factor.

**Factor 3 (F3): Social Image (12.439%)**

This is factor that deals with satisfaction with the workplace relationship (0.726), appreciation of ideas and initiatives (0.717), and the university's image in the society (0.628).

**Interpretation:** Interpersonal relationships and organizational reputation are all represented by F3. It is easy to envision employees who feel a sense of belonging and pride, both in themselves and reflected by their colleagues and leaders. Social connections and university reputation provides a large contribution to QoWL (explaining 12.4% of variance).

**Factor 4 (F4): Workload and Stress (10.595%)**

This factor is comprised of satisfaction with stress levels (0.804) and weekly working hours (0.672) as well as workload (0.616).

**Interpretation:** The relationship with work life balance is described through F4, which points out the relation between stress, workload and manageable working hours with QoWL. Stress loadings are high enough to suggest that stress management and workload optimization could improve QoWL. Accounting for this factor, the percentage variance explained is 10.6, from which the workload balance along with manageable stress is explained.

**Factor 5 (F5): Work schedules and work vacation policies (7.843%)**

This factor includes satisfaction with vacation policies (0.819) and work/rest schedules (0.604).

**Interpretation:** Time management and breaks is something F5 tackles. The findings suggest that vacation policy satisfaction is heavily loaded on high vacation time and structured work schedules. This factor unique, explaining 7.8% of the total variance, indicating the importance of rest and vacation policies in relation to QoWL.

**Factor 6 (F6): Professional Growth (6.634%)**

This factor relates to satisfaction with professional growth opportunities (0.857) and capacity-building opportunities (0.737).

**Interpretation:** In F6, career advancement and skill development are indicated. The significance of continuous learning and career progression is evidenced by the 6.6% accounting for the amount of variance in the strong emphasis on professional growth. Yet, institutional investment in growth remains a key QoWL with respect to professional development for faculty.

**Factor 7 (F7): Promotion Opportunities**

**(5.348 %)**

This factor is solely associated with satisfaction with promotion opportunities (0.619).

**Interpretation:** Satisfaction with promotion pathways is related to F7. Promotion opportunities are a significant independent factor in predicting QoWL and, as such, clear and attainable policies for career advancement are needed. The analysis of these seven factors reveals the multi-dimensional nature of QoWL, with each factor contributing uniquely to overall work life satisfaction:

- Factors related to respect for rights, compensation, and social relationships have the largest impact on QoWL.
- Work-life balance indicators like workload, stress, vacation, and rest schedules are also significant.
- Professional growth and promotion opportunities, although contributing less to the overall variance, are still key components in achieving a comprehensive QoWL.

**Table 4.6: Factor Analysis for the Determinants of Quality of Work Life**

Indicator	F 1	F 2	F 3	F 4	F 5	F 6	F 7
Satisfaction with the University for respect to workers' rights	0.830						
Satisfaction with your freedom of expression at work	0.785						
Satisfaction with the University's human resources policy	0.648						
Satisfaction with the autonomy at work	0.643						
Satisfaction with the adequacy of your salary		0.871					
Satisfaction with your salary in comparison with the salary of your colleagues working elsewhere							0.837

Satisfaction with the extra benefits that the University offers.	0.609					
Satisfaction with the incentives for further studies by the University	0.604					
Satisfaction with relationships with colleagues and leaders at work	0.726					
Satisfaction with the appreciation of ideas and initiatives at work	0.717					
Satisfaction with the image of this University in the Ghanaian society	0.628					
Level of stress with daily work in the University	0.804					
Satisfaction with your weekly working hours	0.672					
Satisfaction with workload	0.616					
The University's policy on vacations	0.819					
Satisfaction with your work and rest schedules	0.604					
Satisfaction with Professional growth opportunity	0.857					
Satisfaction with the opportunities for improving Capacity	0.737					
Satisfaction with opportunities for promotion	0.619					
<b>Total Variance Explained (%)</b>	<b>14.516</b>	<b>12.474</b>	<b>12.439</b>	<b>10.595</b>	<b>7.843</b>	<b>5.348</b>

a. Rotation converged in 14 iterations.

Source: Authors' Estimation, June 2022

## **Determinants of the Quality of Life of University Teachers**

The results underscore the importance of an integrated approach to improve QoWL, suggesting that institutions prioritize fair compensation, autonomy, supportive relationships, balanced workloads, and growth opportunities to enhance overall job satisfaction among faculty. These seven (7) dimensions fit into the conceptual framework developed in Figure 3.

Table 4.7 presents the relative importance of various QoWL indicators based on a Multilayer Perceptron Neural Network analysis. The analysis identifies the key factors contributing to QoWL perceptions among university faculty, with each indicator's relative importance (measured from 0 to 0.176) and its normalized importance (percentage based on the highest-scoring indicator).

### **Relative Importance of Indicators**

**Table 4.7: Relative Importance of Indicators of QoWL**

Indicator	Relative Importance	Normalized Importance
1 Satisfaction with your salary in comparison to salary of colleagues working elsewhere	0.176	100.0%
2 Level of stress with daily work in the University	0.140	79.6%
3 Satisfaction with the appreciation of ideas and initiatives at work	0.139	79.2%
4 Satisfaction with the University for respect to workers' rights	0.103	58.7%
5 Satisfaction with Professional growth opportunity	0.103	58.4%
6 Satisfaction with relationship with colleagues and leaders at work	0.095	54.1%
7 The University's policy for vacations	0.090	51.4%
8 Satisfaction with your freedom of expression in your work	0.080	45.6%
9 Satisfaction with the adequacy of your salary	0.073	41.8%

**Source:** Authors' Estimation, June 2022- Col. 3 derived from earlier tables and col. 4 was derived from col. 3 after standardizing 0,176 as 100% and pro-rating all the other observations.

## **KEY FINDINGS**

### **Top Indicators of QoWL**

a. *Salary Comparison with Colleagues Elsewhere:* Satisfaction with salary in comparison with other colleagues elsewhere is the key element in determining QoWL perceptions; ranking first. This indicates that faculty attach

great importance to external salary competitiveness. The top position of this indicator is due to the impact of perceived fairness (and market alignment) in compensation on job satisfaction and retention.

b. *Stress Level with Daily Work* is the second most important, highlighting the effect of controllable work demand and stress on

QoWL. High stress levels can wreck job satisfaction, physical and mental wellbeing, which are important for maintaining quality work performance and all-around life quality.

- c. *Appreciation of Ideas and Initiatives*: The third factor regards the value of some recognition and appreciation in the workplace. Faculty members are satisfied with how their ideas are acknowledged in an environment in which faculty feel that they will be heard and supported.

### **Indicators of a Moderately Important Nature**

- a. *Respect for Workers' Rights and Professional Growth Opportunity*: Both indicators are equally important, reflecting that QoWL is shaped by respect for labor rights and opportunities for professional development. These elements contribute to a secure and growth-oriented work environment, critical for long-term job satisfaction..
- b. *Relationship with Colleagues and Leaders*: Positive relationships with colleagues and leaders are also moderately influential, reflecting the role of workplace culture and interpersonal dynamics in QoWL. Supportive relationships can foster collaboration, reduce work stress, and enhance morale.

The normalized importance percentages show that while each of these factors contributes to QoWL, some stand out as significantly more influential. For instance, salary comparison at 100% is nearly twice as impactful as internal salary adequacy at 41.8%. This relative weighting underscores that external competitive factors, stress management, and workplace recognition are the most critical elements for faculty

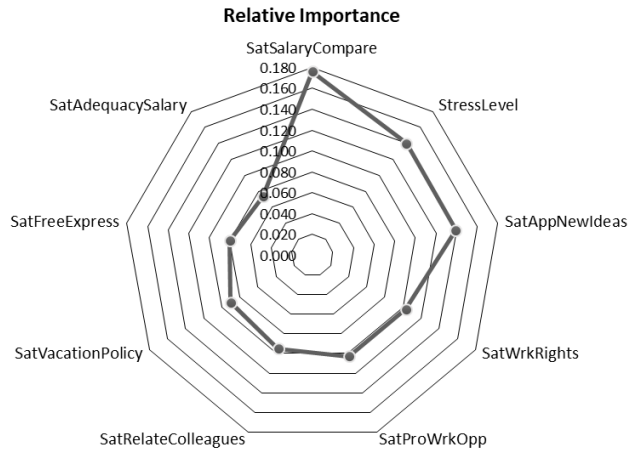
satisfaction. The findings also indicated that competitive compensation, strategies to decrease stress, and the development of an appreciative, supportive environment should be a top priority in university policies aimed at improving QoWL among faculty. Finally, improving the overall Quality of Work Life (QoWL) should involve efforts to strengthen interpersonal relationships and provide professional growth opportunities, thereby fostering greater respect for workers' rights. While the lower ranked factors, such as vacation policies, are important, they do not have as strong an immediate bearing on QoWL, but they still help make a work experience well rounded (See figure 5).

### **The differences in QoWL with respect to the top two (2) Indicators**

#### **Perceived QoWL and comparison of salary to colleagues in other sectors**

Table 4.8 presents a cross-tabulation of perceived overall quality of work life (QoWL) against satisfaction with salary in comparison to colleagues working in other sectors. The table shows both the raw numbers and percentages of respondents within each level of QoWL perception, segmented by their satisfaction level with relative salary. Additionally, a Kruskal-Wallis H test was conducted to determine if there are significant differences in overall QoWL based on salary comparison satisfaction, yielding a statistically significant result ( $p=0.000$ ).

## Determinants of the Quality of Life of University Teachers



**Figure 5** Relative Importance of QoWL Indicators

Source: Authors' Construct, 2022

### Key Observations and Interpretation

#### Satisfaction Levels and QoWL Perception Correlation

- a. **Dissatisfied QoWL:** Of the respondents who perceived their overall QoWL as “Dissatisfied,” a substantial 59.5% are “Extremely Dissatisfied” with their salary in comparison to colleagues elsewhere, with a further 29.7% “Dissatisfied” with their relative salary. Only 8.1% reported being “Moderately Satisfied,” and minimal respondents in this category reported any higher satisfaction levels with their salary
- b. **Moderately Satisfied QoWL:** Among those who perceive their QoWL as “Moderately Satisfied,” salary dissatisfaction is still prevalent, with 43.1% “Extremely Dissatisfied” and 29.2% “Dissatisfied.” However, this group shows a more varied spread across satisfaction levels, with 22.2% “Moderately Satisfied” and 5.6% reporting satisfaction with their salary comparison.
- c. **Satisfied QoWL:** For respondents who perceive their QoWL as “Satisfied,” salary

satisfaction is more evenly distributed. Only 14.9% are “Extremely Dissatisfied,” while a more significant portion (44.7%) is “Moderately Satisfied.” In this group, a notable 21.3% are “Satisfied” with their salary in comparison to other sectors, indicating a clearer link between higher salary satisfaction and positive QoWL perception.

### Key Observations and Interpretation

The analysis shows a clear trend whereby perceived QoWL is positively related to higher satisfaction in salary comparison. For example, among those who are “Extremely Dissatisfied” with their salary, 59.5% report an overall dissatisfaction with QoWL, while only 14.9% of respondents with “Satisfied” QoWL perceive themselves as extremely dissatisfied with their salary. Salary satisfaction is very indicative of higher QoWL and dissatisfaction with salary are linked to lower QoWL. Salary comparison to peers in other sectors is therefore an important determinant of how members of staff perceive their level of quality of work life, their morale and likely their long-term engagement of with the University.



**Table 4.8: Perceived QoWL and comparison of salary to colleagues in other sectors**

		Satisfaction with your salary when compared with the salary of colleagues working elsewhere					Total
		Extremely Dissatisfied	Dissatisfied	Moderately Satisfied	Satisfied	Extremely Satisfied	
Dissatisfied	Number	22	11	3	0	1	37
	% within Perception of QoWL	59.5%	29.7%	8.1%	0.0%	2.7%	100.0%
Moderately Satisfied	Number	31	21	16	4	0	72
	% within Perception of QoWL	43.1%	29.2%	22.2%	5.6%	0.0%	100.0%
Satisfied	Number	7	9	21	10	0	47
	% within Perception of QoWL	14.9%	19.1%	44.7%	21.3%	0.0%	100.0%
Total		60	41	40	14	1	156
		% within Perception of QoWL	26.3%	25.6%	9.0%	0.6%	100.0%

Kruskal-Wallis H 36.502 df= 4  $\rho=0.000$

Source: Authors' Estimation

## Determinants of the Quality of Life of University Teachers

The Kruskal-Wallis H test yields 36.502 degrees of freedom and  $p = 0.000$ , an indication that salary comparison satisfaction level QoWL was statistically significantly different among the several levels of satisfaction. The finding that satisfaction with relative salary is not universally distributed along QoWL perceptions and that there are large salary comparison satisfaction differences corresponding to large variations in perceived QoWL are confirmed.

The result of this test supports theory of salary comparison having direct and strong influence on QoWL perceptions. As this Kruskal-Wallis H test is a non-parametric test, these differences in the medians indicate that employees' perceptions of QoWL are drastically different across levels of satisfaction of employees on salary comparison.

### Perceived QoWL and Level of stress with daily work in the University

Table 4.9 presents data on the relationship between perceived quality of work life (QoWL) and levels of daily work-related stress among university faculty. The table shows the distribution of faculty responses based on their overall QoWL perception, categorized by levels of stress: "Extremely Stressful," "Stressful," "Moderately Stressful," "Not Stressful," and "Totally Not Stressful." Additionally, a Kruskal-Wallis H test was conducted to determine if there were statistically significant differences in perceived QoWL across the stress levels, yielding a statistically significant result ( $p=0.000$ ).

### Key Observations and Interpretation

#### 1. Stress Levels and QoWL Perception Correlation

- **Dissatisfied with QoWL:** Among respondents who are dissatisfied with their QoWL, 43.2% reported feeling "Extremely

Stressful" with their daily work, and 48.6% reported feeling "Stressful." Only 8.1% reported "Moderately Stressful," and none reported low or no stress levels. This distribution indicates a strong link between high stress levels and dissatisfaction with QoWL.

- **Moderately Satisfied with QoWL:** For those who are "Moderately Satisfied" with their QoWL, there is a broader distribution across stress levels. While 21.9% felt "Extremely Stressful" and 35.6% "Stressful," a sizable portion (31.5%) reported only "Moderately Stressful." Additionally, a small percentage (9.6%) indicated no stress at all, suggesting that those with moderate QoWL perceptions experience a more varied level of stress.
- **Satisfied with QoWL:** In the "Satisfied" category, 55.3% of respondents reported "Moderately Stressful" work, while only 10.6% felt "Extremely Stressful" and 19.1% felt "Stressful." Notably, a higher portion (14.9%) reported feeling no stress, showing that lower stress levels are more common among those who are satisfied with their QoWL.

#### 2. General Trends Across Stress Levels

- **Increasing Satisfaction with Decreasing Stress:** There is a clear trend where lower stress levels correlate with higher QoWL perceptions. Those who are "Dissatisfied" with their QoWL tend to report the highest stress levels, whereas those who are "Satisfied" are more likely to report moderate or lower stress.
- **Moderate Stress as a Balance Point:** The "Moderately Stressful" category appears to be a midpoint where satisfaction levels start to improve. For instance, a significant 55.3% of "Satisfied" respondents reported

“Moderately Stressful” work. This suggests that some level of stress may be expected or accepted in the university context, but excessive stress has a marked negative impact on QoWL perceptions.

### 3. Insights from the Kruskal-Wallis H Test

- The Kruskal-Wallis H test result of 33.2 with a degree of freedom of 4 and a significance level of  $p=0.000$  indicates a statistically significant difference in perceived QoWL across the various stress levels. This finding confirms that perceived QoWL is not evenly distributed across stress levels and that differences in stress are associated with significant variations in perceived QoWL.
- This statistical result reinforces the link between stress and QoWL, suggesting that reducing stress levels may lead to improvements in QoWL perception among faculty.

Previous tables (Table 4.8 and 4.9) indicated high levels of daily work-related stress for some respondents. Those with high stress might also report lower exercise frequencies, as time constraints or fatigue could limit their physical activity. Promoting manageable work-life balance could indirectly support physical activity engagement. Table 4.10 reveals that a substantial portion of respondents engages in minimal weekly exercise, with 55.4% exercising 45 minutes or less and 10.2% not exercising at all. This limited exercise engagement could affect overall health and quality of life, suggesting a need for health promotion initiatives. By encouraging increased physical activity, especially among low or non-exercisers, organizations could support their employees’ well-being and potentially enhance their QoWL.

Table 4.9: Perceived QoWL and Level of stress with daily work in the University

		Level of stress with daily work in the University					Total
		Extremely Stressful	Stressful	Moderately Stressful	No Stress	Totally not Stressful	
<b>Dissatisfied</b>	<b>Number</b>	<b>16</b>	<b>18</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>37</b>
	<b>% within Perception of QoWL</b>	<b>43.2%</b>	<b>48.6%</b>	<b>8.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>
<b>Moderately Satisfied</b>	<b>Number</b>	<b>16</b>	<b>26</b>	<b>23</b>	<b>7</b>	<b>1</b>	<b>73</b>

Perception of overall quality of life	Satisfied						
	Number	5	9	26	7	0	47
% within Perception of QoWL	21.9%	35.6%	31.5%	9.6%	1.4%	100.0%	
% within Perception of QoWL	10.6%	19.1%	55.3%	14.9%	0.0%	100.0%	
<b>Total</b>	37	37	53	52	14	1	
% within Perception of QoWL	23.6%	23.6%	33.8%	33.1%	8.9%	0.6%	

Kruskal-Wallis  $H=33.2$   $df= 4$   $p=0.000$

Source: Authors' Estimation

Table 4.10: Minutes of Exercise per Week

Minutes per week	Frequency	Percent	Cumulative Percent
0	16	10.2	10.2
20	1	0.6	10.8
30	70	44.6	55.4
45	25	15.9	71.3
90	19	12.1	83.4
120	11	7.0	90.4
150	15	9.6	100.0
<b>Total</b>	<b>157</b>	<b>100.0</b>	

Source: Authors' Estimation, 2022

## DISCUSSION

This discussion is focused on four main revelations from the analysis including the differences in QoWL due to the number of years spent working at the University, dimensions of QoWL for the participants in the study, relative important determinants of QoWL, and finally the differences in QoWL in relation to the top five (5) relative important indicators. This interesting aspect of the initial analysis reveals that indicators like rank, age, and college did not play any significant role in determining the QoWL of the participants in the study.

Based on the findings, the length of time spent at the university is a significant factor in determining the QoWL of senior academic staff at the university. The time immediately following employment and continuing through the first few years of employment is the first crucial window of opportunity. Those who fall into this category expressed a high level of contentment with their QoWL. Overall, the findings of this study agree with those reported in Farzianpour *et al.* (2014) and Ayoob *et al.* (2021), and confirm the influence of different socio-demographic factors in determining the different subscales of quality of life. More specifically, age, gender, financial status, health, education, and marital status are among the most important identifying factors affecting quality of life. On the other hand, there is significant correlation between socio demographic variables such as gender, education, family composition, monthly income and marital status, and overall feeling of quality of life among these respondents. This implies that such interventions aiming to yield improvement in quality of life should consider these socio demographic factors to be effective. A study by Swathi and Reddy (2015) also support the view that there is a difference between stress and QoWL based on the number of years a teacher had worked in an institution. This could be because these

senior academic members may not have adjusted to their new environment very well and, as a result, are not very content with the circumstances that exist within the university. They are currently at a level where they are burdened with their workload and other management concerns. Having between four and ten years of experience as a senior academic member at the \*University is essential for QoWL indicators for senior academic staff. Fifty-seven percent (57%) of participants were only somewhat satisfied, since during this period, crucial promotions can be earned and the pressure of balancing teaching, research, and administrative responsibilities first becomes apparent. During this period one is also expected to rise to at least the rank of an Associate Professor. Senior academic members come under a great deal of pressure as a result of these responsibilities, which may be the reason why approximately 25% of them were dissatisfied with their QoWL and 57% were only satisfied with it. This is at variance with Akram and Amir (2020) who found no significant difference in QoWL of teachers for different teaching experiences at the university level in Punjab and India.

In this study, an attempt was made to identify the dimension of QoWL for senior academic staff at the Kwame Nkrumah University of Science and Technology and the study revealed that there were seven (7) dimensions of QoWL for the participants in the study. The study revealed that one dimension dealt with **constitutionalism at the workplace**. Constitutionalism, which refers to the suppression of feelings, adversely affects problem-solving, personal growth, and satisfaction with one's work. Accordingly, being able to freely express one's feelings is an important ingredient for commitment to work. The indicators under this dimension were respect for workers' rights, freedom of expression, University's human resources policy, and autonomy. In fact, an analysis of

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the level of satisfaction with one's rights in the university showed that only 12% were dissatisfied with how rights are respected in the University. On the score of freedom of speech and human resource policy, 16.9% and 19.1%, respectively, were dissatisfied. This dimension implies that academic staff are very concerned about these issues. It also implies that anything that affects these indicators negatively is likely to affect the QoWL negatively. This finding aligns with the finding of Hee *et al.* (2020) who also found that constitutionalism ranks first for job satisfaction of academic staff in Malaysia.

The second dimension had to do with **Reward and Compensation** in the University Salaries and benefits are typical monetary incentives. Pay and benefits are crucial motivating factors for employees in an organisation. They contribute to improved worker performance and output. Muguongo *et al.* (2015) and Hee *et al.* (2020) found same results for Academic staff in Kenya and Malaysia respectively. This dimension as found in this study, though not the first, implied that the University Management team should take a critical look at the issues of remuneration.

The analysis showed that the third dimension had to do with the **work environment**. The indicators in this dimension include the appreciation of new ideas, relationships with colleagues and leaders in the work place, and the image of the university in the Ghanaian society. A person who receives a lot of social support is better able to handle and adapt to difficult situations and has faith in their ability to do so. In Korea, Cho (2019) discovered that social support and an attitude of gratitude moderated the association between emotional dissonance and psychological well-being. Through the satisfaction in QoWL, this study has illustrated the significance of individual traits affecting psychological well-being. Hee *et al.* (2020) came to the same conclusions as

well. This study has also demonstrated that the perception of a friendly climate has a stronger correlation with worker QoWL.

The fourth dimension had to do with **stress levels and workload** for the senior academic staff. Existing research has identified stress and workload as being important concerns with regard to the impact of stress and workload on senior academic staff within educational institutions. Education and work in academia are stressful and inherent, and also tend to have a negative impact on personal well being of educators and the quality of their teaching and surrounding educational environment, especially. The findings are supported by studies which indicate that excessive stress levels can seriously effect how well someone teaches, how well they balance work and life, and even how well students perform. Across a range of sectors, the issue of stress has been well documented; academic work settings frequently constitute stressors associated with high workloads, fragmented schedules, and work related pressures (Winefield *et al.*, 2003). The incidence of stress-related illnesses and absenteeism in the workplace has been increasingly linked to various job-related factors, including job characteristics, working conditions, and individual personality differences. According to the Job Demands-Resources (JD-R) model by Bakker and Demerouti (2007), work characteristics, such as high job demands, low resources, and lack of support, contribute significantly to stress and burnout, ultimately affecting an employee's physical and mental health. Furthermore, when these stressors are persistent, they can lead to stress-related illnesses and an increase in absenteeism, as employees may find it challenging to manage both work responsibilities and personal health. This dimension implies that Management should put in place programs and infrastructure that would reduce the level of stress on senior academic staff at the

workplace. It is important to note that stress was the second indicator on the relative importance ladder. There is a need for action because the working conditions of teachers are characterised by peculiarities that make effective recovery challenging: long working days and a fragmentation of the work and recovery phases due to different work locations (school/home), regular evening and weekend work, and a delimitation of work. This is confirmed by the fact that the majority (71%) of the senior academic staff in the \*University exercise less than one (1) hour a week. (See Table 4.11). The other dimension was **Rest and Vacation Policy**, which deals with the issues of stress, while **Opportunity for career growth and Promotions** address the work environment.

The relative importance ladder showed that four of the top five indicators have linkages with the work environment. The four indicators were Stress levels, Appreciation of new ideas, Respect for rights and opportunities for professional growth. If university management is to upgrade the policies that improve the quality of work life for senior academic staff, placing significant emphasis on enhancing the work environment is essential. The work environment encompasses several factors that can directly impact job satisfaction, productivity, and overall well-being. Research shows that supportive, well-structured, and adequately resourced work environments contribute to reduced stress levels, improved job satisfaction, and better performance outcomes (Bakker and Demerouti, 2007). For academic staff, a conducive work environment not only includes physical facilities and resources but also supports structures that facilitate their teaching, research, and administrative responsibilities. It is also important that relationships among university people, particularly those with peers, are of high quality. Works of Kinman and Wray (2013) reveal that collegial support

and constructive leadership is connected to positive work habits of academic staff to commit to their work and their wellbeing. The implementation of such a positive environment is facilitated by some degree of open communication between faculty and administration, and by encouraging programs promoting mentorship between the faculty and administration. The Job Demands- Resources (JD-R) model suggests that a supportive work space, meaning one that addresses job demands with adequate resources. The job resources of social support, role clarity, autonomy and opportunities for growth should help to diminish the adverse effects of high job demands, according to Demerouti *et al.* (2001). Overall, this allows senior academic staff to access research funding, time flexibility and administrative support in order to reduce job stress and help to balance workload. The analysis showed that participants who were moderately satisfied with their perceived QoWL were highly dissatisfied with the level of stress regarding work in the University. Again, the level of dissatisfaction with salary is also high. This may lead to a highly demotivated senior academic staff and high attrition of staff in the university since the majority are not satisfied with their compensation when compared to colleagues in other sectors. Previous research has demonstrated the negative relationship between academic staff's work life quality and stress levels. Work stress in the academy, as seen by Winefield *et al.* (2008), is an issue that urgently needs to be addressed because they suggest that workloads are excessive, job control is restricted and there is pressure to meet research and teaching commitments. This combination usually results in job dissatisfaction and burnout. Similar findings were reported by academic staff in the UK higher education sector: job insecurity, increased workload, and pressure to reach performance targets are found to be significantly high reporting factors of stress (Kinman and Wray, 2013).

## **CONCLUSION**

This research explores the important determinants affecting the quality of work life (QoWL) of senior members at a public university in Ghana, concentrating on the Kwame Nkrumah University of Science and Technology case study (KNUST). Through an in-depth investigation, the study uncovers numerous critical elements that have a substantial impact on the QoWL of senior university members.

Personal development and contentment have been identified as a crucial element influencing QoWL. Senior members who experience personal and professional progress and job satisfaction have a greater QoWL than those who do not, according to the study. This suggests that institutions must provide their senior members with opportunities for professional development and progress, which will improve their QoWL.

Another aspect revealed by the research is the right to free speech. The QoWL of senior members who feel they cannot communicate their emotions or worries on work-related matters is typically lower. Hence, colleges must foster a culture of open communication and encourage senior members to freely communicate their opinions and emotions.

The study also demonstrates that senior members' QoWL is heavily influenced by their remuneration and benefits. The QoWL of senior members who believe they are fairly compensated for their work is typically greater. Hence, institutions should guarantee that their compensation packages are fair and consistent with the degree of labour and expertise of senior faculty members.

Moreover, the work environment is a significant element influencing the QoWL of senior members. Senior members' QoWL can be enhanced by a work environment that is well-equipped and provides the appropriate resources and support.

The study concludes by emphasizing the significance of relaxation and vacation policies. The QoWL of senior members who have access to sufficient rest and vacation time is typically greater. Universities must therefore adopt procedures that encourage senior faculty members to take time off to rest and recharge.

In conclusion, the study emphasizes the significant elements that influence the QoWL of senior university members and provides unique insights into the QoWL drivers. The findings suggest that universities might design interventions based on these variables to reduce senior members' stress levels and improve their QoWL.

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